Shechita

Religious Historical and Scientific Aspects

SHECHITA

Part II of "Edut Ne'emana"

RELIGIOUS AND HISTORICAL RESEARCH
ON THE
JEWISH METHOD OF SLAUGHTER

Edited by
Michael L. and Eli Munk

and
MEDICAL ASPECTS OF SHECHITA
by
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This book is dedicated
to the memory of

RABBI EZRIEL (ESRA) MUNK,
Head of the Central Committee For
Shechita Affairs in Berlin,
who devoted a great part of his life
to the defense of *Shechita*

as well as to the memory of

Dr. SOLOMON LIEBEN,
Physician and Research Scientist
in Prague,
whose scientific work formed an
essential contribution to *Shechita* research

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FOREWORD

This publication complements the recently published documentary *Edut Ne'emana*[1] which contains a survey of the defense of *shechita* (the Jewish method of slaughtering animals for food) in Europe, together with numerous *halachic* discussions, decisions and declarations by Rabbinic authorities the world over concerning the problems of electrical stunning ("electro-narcosis") prior to *shechita* and the reasons for its prohibition. Because of the nature of the material and the anticipated scholarly readership, that volume was published in the original language of the Responsa, Hebrew.

This volume, which represents Part II of that work, presents material which would be of interest to a much wider audience — scientists, government officials and lawyers — and is therefore published in English. It contains a number of hitherto unpublished essays by the late Rabbi Ezriel Munk on general aspects of Jewish religious law concerning *Shechita* and preparation of meat for consumption; a systematic scientific review of *Shechita,* its execution, consequences and humaneness, by Dr. I.M. Levinger; and a compilation of legal documents as well as texts and translations of declarations by leading Rabbinic authorities, illuminating certain phases of the historic struggle in defense of *Shechita* in Germany. A survey of legislation in various countries protecting *Shechita* is included.

A bibliography is appended, which includes all available publications on the subject so far as is known to the Editors.

In some ways, the two volumes which comprise *Edut Ne'emana* also serve as a tribute to a staunch form of Judaism that was strongly identified with German Jewry, from the time of Rabbi Ezriel Hildesheimer and Rabbi Samson Raphael Hirsch, and that

1. *Edut Ne'emana, She'elot u-Teshuvot al Maavak Ha'shechita be'Europa* by E. and M.L. Munk, Jerusalem, 1974. Distribution Gitler, R. Bilu 4, Tel Aviv.

is almost without conterpart today. This consisted of seizing every aspect of science, technology, and philosophy — all the broader implications of *Wissenschaft* that seemed to threaten hallowed traditions of Judaism — and to utilize them in the service of Tora life, in the defense of Tora thought. The exponents of *Tora Im Derech Eretz* in its classical from won the admiration of the Tora leadership of Eastern Jewry for their most effective employment of scientific method in successful advocacy in behalf of *shechita*. As a documentation of a valiant battle, this book is indeed a fitting tribute to noble warriors on behalf of the integrity of Tora — the outline for the way of life that is forever "a pleasing way".

The Editors wish to acknowledge the contribution made to this work by Dr. I.M. Levinger, whose vast knowledge and personal experiments and experience added immeasurably to the scientific phase of the book and whose dedicated supervision of the technical aspects of its publication was indispensable in bringing this work to fruition.

I

shechita

A.

WHAT IS SHECHITA ? [1]

Shechita, the Jewish method of slaughtering permitted animals for food, is a religious rite deriving authority from the *Tora* (Bible). Prescribed by Divine Law, as interpreted by Jewish tradition, it is binding on the conscience of the Jew. Jewish religious law consists of both the Written Law (The Pentateuch) and the Oral Law, which was also given to Moses at Sinai (Exodus XXIV, 12). The Oral Law was later on committed to writing as the *Mishna* (c. 180 CE), which is the basic text of the *Talmud.*

The Biblical reference to *shechita* is in Deuteronomy XII, 21: "Thou shalt kill of thy herd and of thy flock, which the Lord hath given thee, *as I have commanded thee...*" These words *"as I have commanded thee"* imply the existence of a Divinely ordained method of slaughtering animals which was received as *Halacha* given to Moses from Mount Sinai.

The specific laws dealing with *shechita* are to be found in the Babylonian Talmud, *Tractate Hullin,* Chapters I and II, as well as in the codifications thereof (1) by Maimonides in *Mishne Tora,* Laws of *shechita,* and (2) by Karo in *Shulchan Aruch, Yore Dea,* I to XXVIII.

The method of slaughter consists of a single rapid cut of the neck by means of a knife of adequate length, set to exquisite sharpness, more acute than any surgical knife, with a perfect edge, free from the slightest notch or flaw and minutely examined by a specific method for any unevenness immediately before the slaughter of each animal. The *one* swift movement of the knife which causes no pain, and takes a fraction of a second, cuts through the soft structures anterior to the cervical spine, severing the tra-

1. With acknowledgments to the Board of Deputies of British Jews in London.

chea, the oesophagus, the two vagus nerves, as well as both carotid arteries and jugular veins, the main blood vessels supplying and draining the head and brain.

Five points have to be observed in correct ritual slaughter:

1. *Shehiya* — There must be no pause. The incision must be continuous until all the vital parts are severed. A pause for an instant, voluntary or involuntary, renders the killing improper.

2. *Derasa* — There must be no pressing upward or downward, nor any hacking. The object is to secure positive and swift action in the incision.

3. *Chalada* — There must be no burrowing. The knife must not be introduced under the skin, as in stabbing, or covered by the wool of the sheep or hair of the steer. The incision must be free, open and exposed, so as to drain the brain quickly and thus render the animal unconscious immediately.

4. *Hagrama* — The incision must be made in a prescribed region of the neck, namely through the trachea, preferably below the cricoid — the complete cartilaginous ring immediately below the larynx — but not through the larynx, nor through that part of the neck which is close to the chest, where the muscles are very thick and the trachea is deep-seated. The reason is that the complete ring is hard, sometimes almost completely ossified, and might blunt or nick the instrument and thus cause delay in cutting and inflict pain. Similarly, the muscles near the chest are thick and stout, and to cut through them would be attended with delay.

5. *Ikkur* — There must not be a laceration, but an incision, a clean cut, not a tear; hence the knife is examined after the operation, as well as before, to make sure that it is perfectly smooth. If a roughness is found the beast is declared to have been improperly killed, and its flesh is *trefa*. The explanation is evident. It is well known that a tear is infinitely more painful than an incision. The prescribed incision, therefore, must be made by an instrument sufficiently long and broad, exceedingly sharp and perfectly smooth.

The incision should be carried from the surface of the skin down to, but not touching, the vertebrae. This necessarily includes

the severance of the trachea, oesophagus, carotid arteries, jugular veins, the pneumogastrics and the main or upper cardiac branches of the sympathetic nerves. Severing the carotids causes an immediate acute anaemia of the brain, which is followed instantaneously by unconsciousness.

These minutes rules obviously spare the beast pain. The three precepts of surgery are that an operation should be performed *cito, tuto et jucundo* — quickly, with certainty and with a minimum of suffering. The prohibition of pausing — the insistence on continuousness in the cut — ensures swiftness. The inhibition of pressing ensures certainty, and the rule that the incision must be free and open secures quick and sure draining of the brain and prevents suffering.

In addition to the supreme humaneness of *shechita,* the Jewish method ensures a complete and rapid draining of the blood from the animal. This is of great importance from the hygienic standpoint. The better ex-sanguination of the carcass which takes place, not only means that the meat is of better quality, but that it is of better keeping quality.

Apart from Civil Veterinary Inspection, the carcass is also submitted to a Jewish Religious Inspection *(bedika).* The purpose of this is to ascertain the state of the animal's organs before and after slaughtering, for which there exist extensive regulations, and to remove certain parts forbidden for consumption (*nikkur* or porging).

The Editors [1]

IN DEFENSE OF SHECHITA

Shechita — a religious law

Ritual slaughter of animals in preparation for eating is prescribed in Biblical law (the *Tora*), and explained in the *Talmud* in detail. The laws of *shechita* have been honored by Jews since their earliest days as a people.

Throughout millennia, these laws have guided the Jews and have been an important factor in preserving them as a distinct group with an identity of its own. This has been a source of deep satisfaction to the Jews: knowing that they are fulfilling God's Will even in regard to the food they consume, while recognizing that the prescribed method of slaughter is most humane — avoiding cruelty and undue pain to the animal.

Arguments against *shechita*

For many years, however, this method has been subject to criticisms that have seemed to carry weight [2]. There are answers to them, and the uninformed should become aware of these answers. These criticisms, as well as other less substantive ones, have also been advanced against *shechita* as a subterfuge by anti-Semites, covering up their true intention of discrediting Jews and Judaism.

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1. *Rabbi Dr. Michael L. Munk,* a son of Rabbi Dr. Ezriel Munk, was for many years Executive Director of the "Central Office for Shechita Affairs" in Berlin (see page 18), and is intimately familiar with most of the events touched upon in this work. He has been actively engaged in education and the defense of *shechita* in Europe, and later in America.
   His brother, *Rabbi Dr. Eli Munk,* assisted his father in the defense of *shechita* in the 1920's and later was the founder and for many years Rav of the Golders Green Beth Hamedrash Congregation in London.
   Dr. I.M. Levinger, who contributes the review of Medical Aspects of Shechita, is a graduate of the Veterinary-Medical Institute of Zürich University. He obtained his rabbinic authorization and his shechita diploma at Jerusalem and a Ph.D. degree at the Medical School of the Hebrew University. He serves as a Senior Lecturer in Animal Physiology at the Department of Life Sciences, Bar Ilan University, Ramat Gan.
2. The *shechita* problem is still acute in many parts of the world. A comprehensive study, "Religious Freedom: The Right to Practice *Shechita*", was published in New York in 1946 by Rabbis Isaac Lewin, Michael L. Munk and Jeremiah J. Berman. It dealt with current international legislation on *shechita* and updated the scientific findings on the subject.

In support of their contention that the Jewish method is inhumane, opponents of *shechita* advance the following arguments:

1) that the animal retains consciousness — and sensitivity to pain — even after being cut;
2) that the incision itself is painful;
3) that the preparation for slaughter, including the casting of the animal to the ground, is cruel.

They also maintain that prohibiting *shechita* would not violate the religious freedom of the Jews, inasmuch as it was not an ordained law explicitly written in the *Tora* and, therefore, no objections could be made on religious grounds against the introduction of an effective "stunning" method, rendering the animal unconscious and thus insensitive to pain prior to *shechita*.

Anti-shechita campaigns

Efforts to prohibit *shechita* were first made in Europe toward the close of the nineteenth century. The land in which the canard about the inhumanity of *shechita* led to the first prohibition was Switzerland. While the Swiss Federal Government formally stated that *shechita* could not be considered cruel to animals [3], the cantons were free to adopt their own regulations to prevent "cruelty to animals". The canton of Aargau, with its overwhelming population of German Protestants, who were strongly antipathetic to Jews, promulgated the first anti-*shechita* law. Flushed with their victory in this canton, the anti-Semites agitated for the abolition of *shechita* throughout the Republic and in 1893 succeeded, against the advice and judgment of the Federal Government, in incorporating a *shechita* prohibition in the Swiss Federal Constitution.

Scientific and other expert opinion

The first scientific studies on *shechita* were published in the 1890's by one of the greatest physiologists of his time, Dr. J.A. Dembo, physician at the Alexander Hospital in St. Petersburg, and a member of a Commission of the Animal Societies of Russia. His

3. Bundesblatt 1890, Vol. 1, p. 660.

writings became the first presentation on the humaneness of *shechita.*

At about that time, leading authorities from every part of Europe were invited to express their views on the humaness of *shechita.* Various collections of expert dissertations on this subject were published in Switzerland and Germany. In 1894, the "Jewish Society for the Defense and Furtherance of *Shechita*" published the *"Gutachten über das jüdische rituelle Schlachtverfahren",* a collection of opinions rendered by eminent experts in the fields of physiology, pathology, anatomy and hygiene, all in favor of the Jewish mode of animal slaughter. Subsequently, Dr. Hirsch Hildesheimer [4] published the *"Nachtrag zu der Gutachten - Sammlung"* in 1902, and the *"Neue Gutachten"* in 1908. Altogether, a total of more than 800 opinions in favor of *shechita* were contained in these publications.*

Germany

Agitation against *shechita* waxed strong in Germany and Russia. Since the opinion of experts, however, was on the side of *shechita,* no prohibitions were enacted anywhere, except in 1892 in the small German state of Saxony, and even this was repealed 18 years later. In 1890, a special Veterinary Commission reported favourably to the Prussian Government on the Jewish method of slaughtering [5].

In order to meet the increasing attacks, the *"Büro für Schächtschutz"* (Bureau for the Protection of Shechita) was formed by Rabbi Ezriel Munk in Berlin [6]. The Bureau dealt with the legal

4. Son of Rabbi Ezriel Hildesheimer in Berlin.
5. "The Jewish Messenger", September 19, 1890.
6. *Rabbi Dr. Ezriel Esra Munk* (1867—1940), ordained by the Hildesheimer Seminary in Berlin, was Rabbi of the Adass Yisroel Synagogue in Königsberg (1893—1900) and became Rabbi of the *"Adass Yisroel Congregation"* in Berlin (1900—1938), succeeding its founder, his uncle Rabbi Ezriel Hildesheimer. As an advisor on Jewish Affairs to the Prussian Minister for Culture and Religion and a consultant to the Reichsminister of the Interior, he was called upon to write copiously on vital issues and problems in Jewish life at that time. As the head of the "Central Office for Shechita Affairs" Rabbi Munk was in the forefront of the bitter and unending battle in defense of *shechita* both before and during the Nazi regime. He was also a co-founder of the Society of Orthodox Jewish Academics (B.J.A.).

* See also on page 19.

and political defense of *shechita* in the Reichstag and the state legislatures (Landtage), wherever an anti-*shechita* bill was presented.

As late as 1916, the German government, by implication, recognized the acceptability of *shechita*. During World War I, animal blood was used for human consumption in Germany. But, under normal circumstances, blood from animals slaughtered by *shechita* could not be so used, since it might have been contaminated by food spurting from the severed oesophagus. Since the war created food shortages, there was a real danger that the government might prohibit *shechita* in order not to let all that blood "go to waste". With the prompting and assistance of the "Bureau for the Protection of Shechita", a special clamp was devised which could close the severed oesophagus immediately after *shechita*, thereby keeping the blood free from contamination. The German government approved of this method and ordered its application, reaffirming it in a law of 1917. Thus, the law implied that the basic practice of *shechita* itself was legal [7].

In fact, in February 1930, a representative of the Reich's Health Department stated in the Criminal Law Committee of the Reichstag that "down to the present time, the Department still holds the view that Jewish ritual slaughter does not involve any cruelty to animals", and, as late as November 1932(!), confirmed to the "Reichszentrale" that this view was still maintained [8].

In the mid-1920's, with the growth of Nazism in Germany, the Humane Societies for the Protection of Animals (the moving force behind anti-*shechita* agitation), suddenly gained new support. Bills to prohibit *shechita* were introduced in various German state legislatures.

The Reichszentrale

In view of the expanding scope of the opposition's efforts, the Bureau was eventually reorganized as the official central organization representing all Jewish communities in this matter and was incorporated on May 12, 1931 under the name of *"Reichszentrale*

7. See page 222.
8. See page 228.

für Schächtangelegenheiten" (Central Committee for Shechita Affairs) [9].

The "Reichszentrale" appointed several advisory boards, which included: a Medical Research Advisory Committee [10] of physiologists, physicians and veterinarians, to deal with matters concerning humaneness of slaughter and examination of "stunning" methods; a Technical Committee of industrial engineers and slaughterhouse technicians, to devise improved casting and restraining devices for animals prior to *shechita;* and a Legal Conference, to deal with legislative matters. Constant contact was maintained with state authorities, with members of parliaments, with Rabbis and boards of Jewish congregations, with scientists and experts. Extensive correspondence flowed regularly between the "Reichszentrale" and all communities where attempts were made to abolish *shechita* by way of boycott or journalistic polemics. In urgent cases, representatives were delegated to negotiate with authorities and communities. Scientific and educational literature was sent out, memoranda, petitions, leaflets, Ministry decisions, and scientific research findings were immediately disseminated. Journals and publications of humane societies and veterinarians were read and followed up. Two series of additional [11] expert testimonies in favor of *shechita* by leading scientists in European countries were issued in 1927 and 1928.

It was becoming abundantly clearer, day by day, that the Nazis were trying to intimidate and strike at the Jews in every possible way. The issue of *shechita* was tailor-made for their demagogic purposes. The Jews however, accustomed as they were to the rule of law and rational argument, attempted — through scientific evidence, persuasion and whatever legal means that remained at

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9. The presidium of the "Reichszentrale" consisted of representatives of the two larger communities in Berlin, the *"Jüdische Gemeinde"* and the *"Adass Yisroel"*: Rabbi Ezriel Munk (Chairman), Rechtsanwalt Dr. M. Birnbaum, Rechtsanwalt Dr. B. Haase, Landgerichtsrat Dr. A. Lilienthal, and Handelsgerichtsrat F. Struck. The chairman was assisted by his sons Rabbi Eli Munk and later on by Rabbi Michael L. Munk as Executive Director.
10. Among them Dr. Solomon Lieben - Prague (see page 21) dealt with research, Dr. Jacob Levy - Berlin with publication, Dr. Fritz Y. Levy - Berlin with medical and technical problems.
11. See page 17.

their disposal — to defend the practice of *shechita* with untiring vigor. But since the anti-*shechita* propaganda was not intended, and could not be taken, at face value, these defense efforts turned out to be in vain. It was indeed a hopeless fight against irrational opponents and overwhelming odds.

In 1931, bills to prohibit *shechita* were introduced in 8 state legislatures, and in 80 cities attempts were made toward local abolition of *shechita.* In most of the cases, defense action was effective.

Prohibition of shechita in Germany

However, on April 21, 1933, at a cabinet meeting, Hitler issued one of his first orders: *Shechita* was abolished in the entire German Reich, effective nine days later — May 1, 1933.

The decree did not explicitly forbid *shechita;* in fact, it did not even mention the term. In order to avert any suspicions that this law intended to further the Nazi program of persecution of Jews, the decree disguised its objective by ruling that animals must be rendered insensitive before being slaughtered. Therefore, in the absence of any acceptable means of rendering an animal insensitive without causing an injury which could make it unsuitable for food according to Jewish law, the law effectively abolished all *shechita.*

The search for improved preparations of the animal prior to shechita

A shortage of kosher meat developed almost immediately. While many Jews settled for fish/vegetarianism, others turned their efforts to secure kosher meat legally in two ways: finding a new slaughtering operating procedure that would satisfy the law's requirements; and importing kosher meat from abroad.

Casting prior to shechita

Several years earlier, in order to meet the attacks of the anti-*shechita* opposition, it was felt that the casting of the animal prior to *shechita* could — and should — be improved within the framework of the Jewish Law. Some innovations in this area were deemed essential, because the standard pre-slaughter handling-pro-

cedures in *all* abattoirs could leave the unaccustomed lay observer with distressing impressions. Thus, the hoisting procedure was improved, and in some places a rotating pen was introduced to bring the animal mechanically into the necessary position prior to *shechita* [12].

Anaesthetics before shechita

A number of methods to desensitize the animals before *shechita* had also been investigated. Experiments were conducted with chloralhydrate, eunarcon, narconumal, nitrogen and magnesium, among others, to examine their possible admissibility. The investigations disclosed that none of these methods were acceptable on either religious, scientific, or health grounds [13].

The Prague physician, Dr. Solomon Lieben [14], in collaboration with the "Reichszentrale", experimented with currents of electricity which, when applied in minor doses, would be sufficient to bring the animal down without causing serious injury.

As soon as this method became known, it was quickly adopted by non-Jewish slaughterers. Indeed, they discovered that the application of even stronger currents — including severe shock — provided a modern, quick, "clean" way not only to "stun" the animal but also to kill it. "Electronarcosis", as it came to be called, soon became standard operating procedure in many non-Jewish abattoirs. Subsequently, when restrictions on *shechita* became more and more severe, great pressure was exerted on Jewish authorities — both by non-Jewish as well as Jewish sources — to utilize electronarcosis prior to *shechita.*

However, further experimentation by Dr. Lieben revealed that the administration of electric shock caused or could cause organic injuries which would render the animal *trefa* (unfit for Jewish consumption). Such injuries were not immediately apparent, un-

12. See page 117.
13. See page 213 sub "Stunning".
14. *Dr. Solomon Lieben* (1882—1942) was a wellknown Prague physician who combined scientific acumen with religious knowledge and belief. At the *Tieraertzliche Institut der Deutschen Universitaet* in Prague he conducted experiments with regard to various methods of stunning prior to *shechita.* His opinion was frequently sought by leading Rabbinic authorities in Europe. For details of his studies see p. 246, 273, 274.

like the obvious injuries resulting from non-Jewish methods of "stunning", such as a hammer blow on the head, a pistol shot in the head, a neck stab, etc. Electro-narcosis produced *internal* injuries, such as laceration of the capillaries in the lungs, pathologically histological changes in the nervous system, vertebral fractures, damage to the brain and cerebral capillaries — all of which would render the animal *trefa*. Therefore, insisting on electro-narcosis prior to *shechita* would have been tantamount to prohibiting *shechita*.

From the very early stages of Dr. Lieben's experiments (originally contemplated for the purpose of achieving casting only), the R.Z. was in constant contact with leading Rabbinical authorities the world over to ascertain the religious-*halachic* permissibility of experimentation in general and the electric method in particular. This procedure of seeking Rabbinic approval is common in all fundamental *halachic* decisions of far-reaching consequences, and the experiments were undertaken for the sole purpose of providing the Rabbinic authorities with data necessary for their decision.

Following the general prohibition of *shechita* throughout Germany, and despite the importation of some kosher meat from neighboring countries, the need for kosher meat was keenly felt. Under normal circumstances, perhaps, fish might have served as an adequate nutritional substitute for meat; but under the traumatic impact of ever-increasing restrictions and persecutions, it was neither physically nor psychologically satisfying and, in effect, observant German Jews were reduced to a pallid and enervating vegetarianism.

When finally all imports of meat were prohibited, pressure for a solution mounted with increasing vigor. Some Rabbis claimed that the previously observed injuries resulting from electro-narcosis could be eliminated with improved techniques and revised dosages of current. There were two leading Rabbinical organizations in Germany's Jewish Orthodoxy, the "Orthodoxe Rabbinerverband" which was united against a halachic acceptance of any method of stunning prior to *shechita,* while within the "Vereinigung Traditionell Gesetzestreuer Rabbiner" some calls were heard for a more lenient approach to a solution of the "stunning" problem.

Nevertheless, it was the firm opinion of the vast majority of the Rabbinate in Europe, U.S.A. and Israel, that *shechita* must remain unchanged and the introduction of any method of "stunning" was out of the question. Eventually, leading Rabbinic authorities the world over declared the inadmissibility of any method of stunning prior to *shechita*. This was expressed at various times in a number of statements and declarations [15]. Indeed, this decision was adhered to in *all* countries, except in temporary emergency situations, especially in some countries under Nazi domination [16].

Import of Kosher meat in Germany

There were in Germany about 40,000 Jews who strictly observed the dietary laws as well as more than 200 Jewish hospitals, old-age homes, children homes, orphanages and other institutions which needed kosher meat. The "Reichszentrale" took immediate steps to secure supplies of kosher meat from abroad. Hitler's decree was issued on April 21, 1933. By the end of April, within a few days, imported kosher meat began to arrive in Germany.

As a recognized corporate body, the "Reichszentrale" was allowed a specified amount of import credits. It therefore undertook the gigantic task of organizing slaughtering abroad and the importation and distribution of fresh kosher meat throughout Germany.

At first, the Nazi regime was quite willing to permit the Jews to bring in foreign kosher meat, provided that such purchases conformed to the German barter plan, which meant that imports were to be paid for in export credits instead of cash. Their approval was certainly not intended to meet the Jewish need for kosher meat but rather stimulate foreign purchases of German goods. Indeed, the restrictions and obstacles placed in the way of normal import trade patterns proved the Nazis' chicanery. There were but a few countries from which Jews were permitted to procure meat, and at the outset it was obtained primarily from Denmark and the Netherlands.

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15. See page 53.
16. Sweden prohibited *shechita* in 1937, Rumania and Italy in 1938. In Poland legal restrictions were placed on *shechita* in 1936. *Shechita* was prohibited with tell-tale haste in every country that fell before the onslaught of Nazi arms in the early years of World War II: Danzig in 1939; Belgium, Slovakia and Luxembourg in 1940; Alsace (northeastern France) in 1941.

The Executive Director of the "Reichszentrale" was personally held responsible for adherence to all governmental regulations. Special permission had to be granted by the Gestapo for his weekly journeys to Denmark [17], where he had to make arrangements with the Agricultural Department as well as to supervise the slaughtering. On his return from each trip, he also had to undergo thorough questioning by the Gestapo to explain the purpose of his journey and give an accounting of all his movements while abroad.

Constant changes in the import terms and quotas required painstaking negotiations with the Nazi authorities. In December 1935, the German Government introduced new restrictions and abolished the Jewish quota of the barter with Denmark. Meat supplies were diminishing in general, and the Germans wanted all available meat for non-Jews. Naturally, the new measures cut down drastically all imports of kosher beef and poultry.

Porging of hindquarters

At this point it would be worth mentioning one of the many other endeavors to uphold the traditional observance of *Kashrut* in Germany. In many countries, the hindquarters of a kosher animal are not usually sold to Jews, because it requires a specialist (a *menaker* or porger) [18] to remove certain prohibited sinews from it even after *shechita*. The Germans made it illegal to sell to non-Jews the hindquarters of imported animals which had been slaughtered by means of the "cruel *shechita*-method". The inability to resell these hindquarters placed a severe financial strain on the importation of kosher meat and indeed jeopardized the entire program.

Therefore, in 1936, at the request of the "Reichszentrale", the London Beth Din arranged with the London Board of Shechita to train a number of *menakrim* from various German Jewish communities in the intricacies of porging hindquarters, which at that time was still practiced in London but has since been discontinued. This was of considerable help in maintaining a supply of kosher meat from abroad.

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17. See p. 238.
18. Porger — one who makes a ritually slaughtered animal clean by removing forbidden fat, veins and sinews.

Provision for hospitals

Also in 1936, the Ministry of Food was petitioned to reinstate at least a small portion of the barter quota, so that Jewish hospitals could provide kosher meat for their patients who would otherwise have no meat at all. This request was refused for two reasons: *all* barter trade was being curtailed (and no exceptions would be made for Jews); and furthermore, rumors had reached the Ministry that individual Jews were receiving considerable quantities of meat as gifts from abroad and this meat could presumably go to the hospitals.

An attempt was then made to discover new and different arrangements for a supply of kosher meat. Governmental authorities in Denmark, Holland, Uruguay [19] and Argentina were contacted in the hope of making new barter agreements which might be submitted to the German government for approval. A Dutch Minister expressed some interest, but nothing came of it.

The Jewish Friends' Food Fund *

In 1936, a committee of the "Reichszentrale" traveled to London to secure the first large *gift* of kosher meat. From funds raised in London, the committee purchased 40,000 kilograms of fresh Danish beef, 10,000 kilograms of fresh Danish veal, and 30,000 kilograms of frozen beef from Uruguay.

The "Jewish Friends' Food Fund" was then established in London to coordinate efforts outside Germany to supply German Jews with kosher meat. The "Fund" solicited and received contributions from Jews all over the world, frequently with explicit instructions to supply meat to specific institutions or individuals (friends or relatives of donors) inside Germany. It would then purchase kosher meat (at first, fresh meat from Denmark, but later, because of cost factors, frozen meat from Uruguay and Argentina) and deliver it *"kashered"* (already soaked, salted and frozen) to the R.Z. The *"Reichszentrale"*, which by then had been ordered by the Gestapo to change its name to *"Jüdische Zentrale für Fleisch Schen-*

19. See page 237.

* Much of the information on this project is based on an article by Mr. Julius Jung, former Executive Director of London's Federation of Synagogues, and the Hon. Secretary of the JFFF, published in 'The Light', London, Dec. 1973.

kungen" (Jewish Central Office for Meat Donations) [20], distributed it to institutions or private individuals, as ordered by a sponsor abroad [21]. Furthermore, the "Fund" insisted that 10% of all kosher meat sent to Germany be distributed free of charge to Jewish charitable institutions.

A brief extract from a statement published some six months after the "Fund's" establishment demonstrates the tremendous scope of this undertaking:

> "Our accounts show what large amounts we have already been able to deal with during the short period of the Fund's existence. During this period, the Fund bought 600 tons of meat, which was used for supplying 25,000 persons and 15,000 patients and/or members of 205 Jewish institutions, comprising 24 hospitals, 44 homes for the aged, 87 youth homes and *hachsharah* training centers, 20 soup kitchens and 30 various institutions. During the Holy Days, every observant family in Germany was supplied with kosher meat".

During this period, the kosher hospitals in Germany heroically continued to serve kosher food exclusively. On November 12, 1936, at a meeting in Berlin of hospital directors, the suggestion was advanced that the hospitals yield and become *trefa,* but maintain kosher departments for those patients who might ask for kosher food. The proposal was vigorously debated and voted down. Only in 1938, when the economic situation had taken a turn for the worse and when government restrictions had increased, did some of the hospitals decide to retain kosher departments for observant patients only.

Closure of Zentrale

In October 1938, only three weeks before the infamous *"Kristallnacht"* which brought to an end Jewish communal life in Germany, the Executive Director of the *"Reichszentrale"* was summoned to the Gestapo. In most dramatic fashion he was accused that the *"Jüdische Zentrale"* was undermining the Nazi regime through its

20. The name-change was designed to prevent any possibility that the term *"Reichszentrale"* might be misconstrued to suggest that this was an official Bureau of the German Reich.

21. See a sample of R.Z. notification on page 237.

international connections. A decree for a cessation of all activities was issued under threat of arrest and deportation to a concentration camp with the additional demand that no publicity appear abroad concerning the oppressive edict (which the Executive Director could hardly control or give assurances on). One concession was eventually granted: a quantity of frozen meat already stored in the port of Hamburg could be distributed, over a period of several years, to Jewish hospitals with kosher departments. All individual Jews, now that kosher meat was no longer obtainable, had to resign themselves to fish or vegetarianism.

Thus came to an end a glorious epoch in the history of German Jewry, which through years of superhuman struggle and imminent danger, withstood all temptations to abandon their religious beliefs and practices.

MAIN FACETS OF THIS BOOK

halacha

The Hebrew documentary *Edut Ne'emana* contains a collection of correspondence and Responsa between Rabbi Ezriel Munk and other Rabbis with the foremost religious authorities in Eastern Europe on problems of *shechita* and anaesthesia, as well as the final decisions proclaiming the inviolability of the method. The latter declarations by authorities in many countries are reproduced in this book.

shechita and kashrut

Also included are some essays of Rabbi Munk written for intramural enlightenment. For instance, it was necessary to explain to Jews themselves that *shechita* and other laws of *kashrut* (concerning the Jewish diet) were much more than and different from primitive and unsophisticated expressions of hygienic principles. On the other hand, Rabbi Munk was frequently requested by government bureaus and officials to explain or justify various aspects of Jewish religious practice. Examples of such writings are included.

science

The agitation against *shechita* was begun by various Societies for the protection of animals against cruelty. *Shechita* was declared to be a cruel method of slaughtering animals. *Tora*-believing Jews

share the concern of all men of good will that animals should not suffer — only their concern is more than a humane one: it is of Biblical dictate as well. While they are confident that the Divine Law prescribes the most humane method in the ritual law of *shechita,* scientific evidence at times may appear to cast doubt on the humane character of *shechita.* Science is but a human interpretation of humanly observed phenomena, and the history of scientific thought is replete with revolutionary findings that discarded the previous day's axioms. However, since the challengers of *shechita* used 'scientific' data to prove their case, it became imperative for its defenders to present all possible rational arguments to refute these allegations, using the same objective tools of observation and interpretation as their opponents.

The scientific material in this book, never published before in its entirety, represents a meticulously careful study of the physiological aspects of *shechita* and the resultant blood flow. It demonstrates conclusively the almost instantaneous — and painless — loss of consciousness of the animal when the Jewish ritual requirements are observed.

historic documents

In the defense of *shechita* over the years, many words have been spoken and written, many actions taken, many edicts decreed, many proclamations issued. A study of these, or a mere perusal, would reveal the tactics of the opposition and the counsels of the defense. Thus, aside from our obligation to preserve for posterity the great events of the past, there is much to be learned from the words and deeds of our predecessors.

Many of the documents which are reproduced in this book have never before been published, having gathered age and dust in the archives of the "Central Office of Shechita Affairs". Others have appeared here and there, while they were timely, but have been long forgotten since. It is the endeavor of the Editors to gather these documents and declarations together into one permanent collection, easily accessible to students and scholars alike. It is our prayer that they may give our people added strength and wisdom in the continuing struggle to fulfill the Divine Will.

II

halacha

A.

Rabbi Ezriel (Esra) Munk

SOME HALACHIC ASPECTS OF SHECHITA AND OF THE CONSUMPTION OF MEAT

"BEDIKA" (JEWISH RELIGIOUS INSPECTION) AND CIVIL VETERINARY INSPECTION OF MEAT

Civil inspection of meat is designed to avoid consumption of meat which would be harmful to man. As long as it is *not* harmful to man it is considered *sound.* Meat which is of doubtful soundness or poor quality *may* be distributed in special shops provided its imperfect condition is made clear.

Jewish inspection of meat, however, lays down an additional condition if it is to be considered fit for consumption. It requires not only

(a) *that the eating of such meat not be harmful to one's health,* but also

(b) *that the eating of such meat not be harmful to one's spiritual well-being.*

With regard to (a), what is considered harmless to health depends on the scientific knowledge available at any given time, just as it is in the case of civil inspection. One must take account of every advance in veterinary research so far as it concerns human health. The attainment of *this* knowledge is not the special concern of Judaism; it is, like all research in the natural sciences, the common task of humanity. In countries where civil authorities arrange for veterinary examinations to establish scientifically any factors which may affect the health of the consumer, such inspections — but *only* such inspections — need not be performed by religious functionaries.

With regard to (b), however, the question of the *possible effect on the consumer's spirituality,* research has so far accumulated only a very limited amount of experience. Only in the area of mental health has medical science successfully pursued possible connections between physical diet and the life of the mind. We have, for example, come to recognize a relationship between phy-

sical conduct and depression. But medical science offers no definite information regarding any direct connection between physical conduct and a spiritual inclination towards moral behavior, and if so, to what extent and of what kind. This field of knowledge has not yet revealed itself to scientific inquiry.

Divine Revelation, so Judaism teaches, proclaims that there is a connection, a correlation, between soul and body, and that the latter *can* affect a person's readiness to submit to the claims of morality. Implicit in this proclamation is the demand that one should pursue a physical regimen which will not impede but rather increase the soul's natural propensity towards moral living.

One's readiness to accept the rule of morality must equal the extent of one's religious duties. The more numerous the demands, the stronger must be one's willingness to obey them. In Judaism, a believer's obligations are very wide-ranging. The professing Jew finds his whole life dominated and controlled by his faith. From adolescence until death, the believer's life is circumscribed by and filled with laws and duties towards himself, towards society, and directly towards G-d. This great multiplicity of duties postulates that the believer's soul be capable of a high amount of willingness and will-power, a truly high level of spiritual achievement.

To cite but one example of the demands made on the will-power of the faithful Jew: religious law demands of every single adult Jew — also workman or trader — that he suspend every kind of productive activity during the Sabbath rest-day (a period of at least 25 hours) week after week after week.

Since scientific research does not reveal the connection between a person's physical condition and his readiness to perform moral acts, Divine Revelation could not have commanded us to treat and nourish the body in an "appropriate" manner to ensure a corresponding high standard of desired spiritual energy, without at the same time revealing what such physical treatment should consist of.

It is with this aim in view that Revelation has included the dietary rules outlining the lines of demarcation between which

foods are permitted *(kosher)* and which are forbidden *(trefa)*, among the complex of laws which govern a Jew's physical life and behavior.

Nowhere in the Holy Scriptures are any dietary laws based on grounds of health or mentioned in connection with any hygienic purpose. On the contrary, their purpose is expressly stated to be a spiritual one — namely, self-discipline and self-education towards *kedusha*, a Hebrew word which is rendered by non-Jewish translators as "holiness", but which really denotes the strengthening of a person's continual striving towards the lofty ideals of religion and morality.

The dietary laws which regulate the consumption of meat consist mainly of rules concerning:

(1) rendering the live animal's flesh into meat fit for eating (the laws of slaughtering);

(2) distinguishing between permitted and forbidden animal species;

(3) the state of the animal's organs before and after slaughtering;

(4) the prohibition of certain parts of even a permitted animal.

With regard to Category (1), the prescribed method for rendering live flesh into meat is *shechita*. We must draw the reader's attention to a misconception about the religious purpose of *shechita*, which has even found its way into veterinary literature. Every method of slaughtering is, and should be, concerned with the draining of blood from the animal's body. However, from the fact that Biblical law forbids the consumption of blood, the error has arisen that Holy Scripture based the requirement of *shechita* on the prohibition of blood, or has somehow made the two laws interdependent.

No passage can be found in the entire range of Divine Revelation to justify such a notion. On the contrary, such an idea is demonstrably false. There are many prohibitions relative to food,

concerning entire *genera* of animals and also particular parts of permitted animals. Among the latter is the prohibition of blood. It is indeed relevant that the prescribed manner of slaughter *(shechita)* does in fact promote a strong and rapid escape of blood. But this effect may not be used as a hypothesis on which to erect a rationale of *shechita* which finds no support in either Biblical text or Jewish tradition.

The question of the "real" reason for a religious ordinance has no decisive importance with regard to its place in the religion or the believer's obligation to carry it out. On this, all religions in the world agree. Every religion demands of its adherents obedient compliance with each of its rules even when the meaning of the particular rule is not thoroughly understood.

But the meaning and purpose of our dietary legislation, as already mentioned, has been proclaimed to us by Divine Revelation to be a spiritual one. Its provisions originate in the connection between the treatment of the body and the development of the soul. This connection, the Bible indicates, is the only way to a correct understanding of the laws regarding slaughter. We can thus understand, in the light of Biblical Revelation, that regarding the physical state of the dying animal, it is *not* irrelevant whether the vital element departed from the material substance in this condition or that condition; that with regard to the condition of the flesh induced by the process of killing, it is *not* irrelevant whether the animal's life was terminated in one way rather than another. Different methods of killing can bring about different material conditions in the body and consequently lead to different effects when the flesh is consumed. This difference need not be of a hygienic nature; it can have an effect in a purely spiritual way.

Whether or not it is empirically proven that different physical states of the animal's body can result from different methods of slaughter is, for the professing Jew, not decisive. Even if symptoms of such difference would never be detected by scientific research, the believer's inner conviction of the truth of the revealed motive underlying our dietary laws would remain unimpaired. The

fact is, however, that scientific research *has* detected a difference in the effect of various methods of slaughter, e.g. — the oxygen content in the blood at various slaughtering procedures.*

With regard to Categories (2), (3) and (4) listed above, no separate observations are necessary. All the religious laws listed in those Categories have the same underlying meaning and purpose as has been explained in connection with Category (1).

To the question of the relationship between the requirements of Judaism and those of the civil authorities in the matter of meat inspection, there is a simple answer. That meat must be sound in the hygienic sense (harmless to the consumer's health) is required by Judaism just as much as by the civil authorities. In addition to this, there is the need, for Jews, that the meat also be sound in the other sense. In view of this relationship — physical and spiritual hygiene — it is impossible for contradictions to arise. The requirements which follow from the criteria described above must indeed coincide at many points. Whatever is established by scientific knowledge as being unhygienic and harmful, and therefore inadmissible as food, is also recognized as such by Judaism. The special religious restrictions imposed upon Jews can only be a separate and additional factor and can never clash with the demands of science.

* It cannot yet be foreseen whether the recent comparative studies on the toxicity of organs of slaughtered animals (Macht, The American Journal of Physiology, Vol. 07, 1931, Nos. 3 and 4) will afford material regarding the effects of different methods of slaughter. In any case, in view of the above statement about the professing Jew's way of viewing the matter, such results can have no decisive importance which could affect the religious attitude.

"TREFOT" (ABNORMAL CONDITIONS OF ORGANS)

A Summary of Principal Abnormalities of Organs which Render Meat of an Animal Inadmissible as Food (Trefa)

Religious law prescribes, in every case, inspection of the lungs and of the diaphragm for the purpose of observing any abnormalities therein. Inspection for other abnormalities is required only in case of suspicious circumstances, especially if there has been any interference with the animal; if such inspection can not be made, the animal must be considered as trefa.

A. General Abnormalities:

I. Any shock to the entire body, if the animal, while unable to protect itself, suffers a violent fall, is struck by lightning, etc.

II. Morbid conditions capable of ending life, such as suffocation or debility. Emergency slaughter is admissible only if it is ascertained that the animal possesses a sufficient vitality, as proved by its ability to stand up unaided from a lying posture or, if slaughter has already been carried out, by observing its normal reflex-movements *immediately* after the cut.

B. Abnormalities in Specific Organs:

I. In the Lungs:

a) *General:*

1) The absence or displacement of particular lobes of the lung.

2) Irregularity in the relative size of the lobes or in their shape.

3) If the membrane and the interior of the lung are not intact.

4) Irregularities in the *varda* (the intermedial lobe of the lung, shaped like a rose-petal, which is encased in a sac and adjoins the Diaphragmatic lobe.

b) *Main Abnormal Conditions:*

1) If the lungs are not divided into lobes.
2) The existence of a supernumerary lobe, of a certain size, on the side facing the ribs.
3) Certain protuberances or cavities.
4) Threads of mucous membrane (adhesions) in certain places (unless they can be removed by gentle rubbing or fingering without leaving a trace).
5) Coalescences (under certain conditions).
6) An abnormal color of the lung.
8) Certain kinds of obstructions.
7) Cysts (under certain conditions).
9) If the lung is desiccated, liquefied, or decomposed.
10) Certain partial or total changes.

II. *Abnormalities in Other Organs:*

a) Major defect in the cranium.[1]
b) Brain:

1) Perforation of the cerebral membrane (meninges).
2) Softening of the brain (or of the spinal marrow).
3) An accumulation of water.[2]

c) Absence of the upper jaw.
d) Perforation of the oesophagus. Loosening of its connection with the pharinx.
e) If the gullet is torn.
f) Fracture of the spinal column (since there is a possibility of the spinal cord having been severed).
g) Perforation of the cardiac muscle.
h) Severe atrophy or desiccation of the liver or duplication of the liver.
i) Perforation of the diaphragm in abnormal places.
k) Certain abnormalities of the spleen.
l) Certain abnormalities of the gall-bladder.

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1. i.e. of major part, in some cases holes in the bone. — Ed.
2. Hydrocephalus or vesicles. — Ed.

m) Defects in the walls of each of the stomachs or intestines, or supernumerary intestines.

n) Multiple fractures of the ribs or fractures of the extremities in certain places or defect in the tendon-junction at the tarsal joint.

o) Dislocation in the socket of the Femur head.[3]

p) Certain defects in the kidneys.

q) Certain defects in the uterus or bladder.

r) Danger of infection (in wounds caused by birds of prey or where the animal has eaten poisonous plants).

s) Certain defects in the skin of the animal.

3. With rupture of the hip-joint ligaments. — Ed.

"DIN HA-ROV" (THE "MAJORITY PRINCIPLE") AS APPLIED TO ANIMALS AFTER SHECHITA

In Jewish religious law, there is no single general rule which encompasses the several various conditions which determine the *kashrut* (permissibility) of meat even from among the permitted species of animals. For example, *which* of an animal's organs, if found to be abnormal, would render the animal *trefa* (not-permissible) and *what* is to be considered abnormal, religious law provides separate conditions for each organ.

However, in case a *suspicion* of abnormality in an organ should arise *while the animal is alive,* we do find a general rule: If, after the occurrence (an accident, a disease, etc.) which created the suspicion, the animal shall live for a whole year *or* if the animal shall give birth, the meat from that animal is kosher — provided that after *shechita* no *visible* signs of abnormality (as defined by religious law) shall appear. The "whole-year" test, or the "birth-giving" test, are valid only if the suspicion of abnormality arose while the animal was alive. Also, these tests are valid only for the specific animal to which they were applied, not as proof that *other* animals which were similarly suspect are therefore also *kosher* (even though they did not themselves pass either test). Furthermore, these tests do not in any way affect our judgments concerning *visible* conditions of abnormality in any organ, which are determined solely by the particular religious laws applicable to that organ.

Note: In view of this precept, current scientific research with regard to which organic abnormality may endanger an animal's life has absolutely no bearing on that animal's *kashrut.* Moses ben Maimon, known as the Rambam or Maimonides (1135—1204, Cairo, famous scholar, court physician), who was both a scientist and at the same time one of Jewry's most important religious

authorities, set forth the relationship between religious law and contemporary veterinary science as follows:

> *"To these* trefa *cases, no further cases can be added. Even if the animal shows some abnormality which, according to medical experience, could have caused its death, its meat nevertheless remains kosher. On the other hand, in the* trefa *cases listed above, the meat is forbidden even if, according to our medical experience, one or another of the abnormalities is incapable of causing death. Only religious tradition can decide, as it is written in the Holy Scripture. 'According to the teaching (Tora) which they shall teach thee...'"*
>
> (Yad Hachazaka, Laws of Shechita Ch. 10, Par. 12-13)

While, according to religious law, the determination of an animal's organic abnormalities is not derived from a general principle, the *rules governing the inspection of meat* is based on a comprehensive principle, namely:

"Once proper *shechita* has taken place, the animal is to be considered *kosher,* so long as no abnormality capable of causing unfitness *(trefa)* is known to exist in any of its organs."

Religious law itself gives a reason for this:
"The majority of slaughtered animals are *kosher.*"

This reason is not presented as a result obtained through experience but as a pronouncement of the Divine Legislator, Who is the Creator of all creatures. Thus teaches the Jewish religion.

From the general principle that the majority of slaughtered animals are *kosher,* religious law expressly derives certain inferences — some of them extraordinarily far-reaching — affecting religious practice. For instance, if organs which would ordinarily require inspection were to disappear, then, in cases of extreme urgency or need, the remaining meat from that animal may — on the strength of the "majority principle" — be regarded as *kosher.*

This assumption, based on the above general principle, is subject to one condition: that the visible state of the animal's body

be not such as to rule out the assumption that this animal is one of the 'majority' — namely, when seeing any of the organic abnormalities being designated by religious law as *trefa*. Only if there is a likely possibility that the observed abnormality appeared *after shechita* (e.g. if, before inspection but after *shechita*, the animal was, contrary to rule, subjected to such handling as may account for the abnormality) can the animal be regarded as *kosher*. Its meat may not be eaten whenever the animal's appearance admits the inference that the abnormality has been caused before *shechita* (e.g. as a result of some external interference before the *shechita* cut or if a cicatrized wound is found).

Which organs of a slaughtered animal regularly require inspection?

Where *no suspicion* exists, religious law merely requires ascertaining the state of the throat organs, the lungs and the maw. A slaughtered animal may be considered free from suspicion if:

1. No influence has been observed, before or during *shechita*, which could raise the suspicion of causing ritual unfitness (e.g. the application of a projectile, poison, shock, etc.).

2. After *shechita*, none of the organs displays any abnormality which could arouse such suspicion.

If, however, any suspicious observation as enumerated above is made, then the animal is *kosher* only if, upon macroscopic examination, it can be inferred with certainty that ground for suspicion no longer exists. Otherwise, the meat is *trefa*.

The "majority principle," however, cannot be used to nullify the actual fact which gave rise to the suspicion, since obviously the principle applies only to such animals to which nothing special has occurred or is known to have occurred which may have affected their condition.

If therefore interference with a vital organ has in fact taken place (e.g. if the body has been penetrated by a projectile, even if it be only a needle, by a drop of poison or by any injection the effect of which is unknown), then its natural state is broken, and the natural conditions no longer obtain. In such a case the "ma-

jority principle", — viz. the right to assume that the organs are in their natural intact state — no longer applies.

From this follows, in accordance with the religious law relating to such cases, a further consequence, viz. that whenever an animal has been subjected to any kind of interference, it should undergo, at the meat inspection, such an examination of all the organs that could possibly have been affected as shall afford an absolute 100% certainty. The relative certainty rendered possible by even the best scientific equipment (including microscopy) does not, however, suffice for the attainment of such absolute certainty.

On the other hand, any material defect in a vital organ, even if observable only through the microscope, would result in the disqualification for use as food not only of the particular animal in question but, as general rule, of all animals which had been subjected to similar interference, if only because under abattoir conditions a microscopic examination of all the organs would be simply impossible.

HALACHIC PROBLEMS BARRING ELECTRO-NARCOSIS *

I. The Problem of Applying Religious Decisions to the Procedure of Slaughter and to the Examination of the Organs of Animals Slaughtered by a Stunning Method.

Theoretically considered, it is not immediately discernible how one can speak of any problem in connection with this question. Apparently all that is needed in each particular case is to establish whether:

1) the animal was alive immediately before slaughter,
2) the condition of those organs about which there is a doubt accords with the requirements of ritual law or not.

A problem does, however, arise because when animals stunned before slaughter are afterwards examined, one fundamental premise is lacking which is present in the case of animals slaughtered in the normal manner (i.e. without stunning). Religious legislation on the slaughter of animals and the examination of their organs is normally concerned with animals whose natural condition has not been affected by any outside human interference. The Law makes special provision for individual cases which may occur, as when the animal has received a violent blow. Concerning all animals slaughtered without any interference, there is a basic principle of extremely wide application which facilitates the examination of organs and justifies lenient decisions, viz. *rov behemot kesherot,* i.e. those species of animals permitted to be slaughtered are in the majority of cases naturally fit for food *(kosher).* Now if a fact is established as valid for the majority of cases, it may (as in other fields of religious law, with few exceptions) be assumed to prevail also in a doubtful individual case. In such a case the doubt is, in religious law, considered as removed. Hence the situation arises that, although an animal must be sound ("kosher") in all its organs,

* Translated from 'Der Israelit', Frankfurt a.M., March 1934.

yet the examination of all the organs of a slaughtered animal may be and regularly is dispensed with. The "majority principle" creates the so-called *"hazaqa"* (presumption), a condition which in ritual law may be regarded as satisfactory in the case of every individual animal where there is no well-grounded suspicion that one of its organs might be in an abnormal state. Nevertheless, the Sages of Israel have, on account of the Biblical provision "to safeguard the Law", ordained that some few organs in which abnormal conditions frequently occur, such as the lung and the second stomach, must regularly be examined.

This whole arrangement presupposes, as already mentioned, that the animal has remained in its natural state and development and in any case that it came to the slaughter unaffected by any material interference with its body. For this reason it becomes an important question whether and to what extent the "majority principle", which is so vitaly important in doubtful cases, remains applicable after the body has been subjected to a narcotic. The difficulty of answering this question is greatly increased by the lack of knowledge on the part of experts concerning the physical and anatomical effects of the electric current both in human and veterinary surgery. If the "majority principle" is not applicable, the question arises whether it is at all possible to examine all the organs in an animal's body. Should this prove to be possible and necessary, then (1) our *shochetim* must be presumed to possess qualifications different from and superior to those of all existing *shochetim* throughout the world and (2) legal difficulties are introduced into the process of slaughter which for technical and practical reasons might prove to be insuperable. This problem is, however, not an isolated one; it can be understood and elucidated only in connection with others which I have yet to mention.

Even before the actual slaughter takes place, the special condition of stunned animals raises the question whether they possess the degree of vitality which must be assumed if the meat is to be declared admissible for consumption by Jews. In each particular case there must be adequate certainty that on the application of the electric current a temporary or even permanent paralysis of

vital faculties may not have been caused. In any case, only when animals have not been subjected to stunning can it be assumed by virtue of the "majority principle" that they did, at the time of slaughter, possess sufficient vitality, unless in a particular case the condition or behavior of the animal gives ground for suspicion. Here also the practice of stunning would undoubtedly preclude the application of the "majority principle". There is the further question of how, in the case of stunned animals, one may assess those symptoms (viz. certain movements of the extremities) from which conclusions could be drawn about the degree of vitality present before *shechita* if one were dealing with animals which, without having been stunned, appear to arouse suspicion.

II. The Problems arising from Uncertainty about the Effects of the Electric Current on the Animal's Body.

It is known that electric currents can, according to the kind, amount and speed of their application, affect the living body in ways ranging from harmless and scarcely perceptible results to causing death. The disadvantages associated with chemical anaesthesia have long ago given rise to research into the possibility of using electric currents for narcotic purposes before operations. It is, for example, known that such tests have been made years ago in university laboratories. Nevertheless, the use of electrical narcosis for surgical purposes has not hitherto been introduced into human therapy, although the many thousands of pigs daily subjected to electrical stunning must provide the most ample material for comparative study. As is known from operations, certain unpleasant side-effects which attend chemical narcosis are not caused by electrical methods; and yet, it has not hitherto been found possible to decide to introduce the latter in human surgery. It follows then that, apart from equipment modifications which might be necessary to avoid possible danger to the surgeon, there must be some more radical reasons such as our lack of knowledge as to the physiological effects of the current on the living body, or because it may have been ascertained already that health has been affected.

The punctilious care which we are commanded to take in matters relating to our religious law does not in any way fall

short of the punctilious care required in matters of hygiene. It cannot, however, be automatically assumed from the negative attitude of doctors to electrical methods of anaesthesia that we must necessarily come to a negative conclusion with regard to the application of electricity for stunning animals before slaughter. The circumstances are different in the two cases. Still, they have some essential features in common. Two basic requirements must be satisfied concerning an animal's physical condition in order to ensure that its meat is permissible for eating by Jews:

1) The animal must, at the time of *shechita,* possess an adequate degree of vitality. Certain indications are prescribed for establishing that this requirement is fulfilled.

2) None of the organs may exhibit any essential impairment of its normal intact condition. What is essential for each organ is precisely laid down by law.

The mere citation of these two comprehensive requirements is sufficient to show what a high degree of certainty must be attained in each particular case about the changes caused by interference with the animal's bodily functions before the meat can be declared *kosher.* By comparison with other fields of research in anatomy and physiology, scientific knowledge about the nature of electricity in general and the effects of various kinds of current on the bodies of animals is still extremely meagre. One question of absolutely fundamental importance is indeed still unsettled and subject to acute controversy, viz. whether the electric current can indeed produce anaesthesia or whether it causes a convulsive, perhaps paralytic condition of the organs accompanied by fully conscious perception but inability to react — whether, in other words, it produces merely the appearance of anaesthesia but not real anaesthesia at all! In Holland the stunning of animals by electrical means before slaughter is not permitted because Dutch scientists deny that the current has any anaesthetic effect. This controversy has no direct bearing on the matter with which we are here concerned, since in German law the electrical process is regarded as a method of anaesthesia. What does concern us directly is that the results of research in this field of science have hitherto proved to

be inadequate. Our religious law demands certainty in the sense stipulated by it and within the limits it lays down. Experience, however, offers no final conclusions and shows appreciable gaps in our knowledge, so that from this angle also a further problem arises in view of the meticulous responsibility one bears towards one's religious conscience — a problem the gravity of which must not be underestimated.

But even if knowledge about the nature of electricity and its effects were more advanced than it is, so that the problem in its general aspect could be somewhat reduced, we must still not ignore a number of difficulties which confront the practical implementation of this method. The animals chiefly in demand for the Jewish household are cattle and sheep. Now it is known that different species of animals react differently to the electric current. Not only species, however. Even among animals of the same species the origin, age and bodily condition can cause variations in the reaction. Furthermore, the same animal can be differently affected at different times as a result of physical changes which cannot be outwardly recognized. The same current can at one time have a perfectly harmless effect on it and at another time constitute a danger to its life. The special character of each single case is still further increased by variations which must be taken into account by reason of the technical arrangements for slaughter on each occasion, as also the atmospheric conditions and the degree of humidity in the abattoir. Assuming that all these general problems have been cleared up, one would still have to solve the serious difficulty of ascertaining whether and how, by some kind of standardization, the obstacle of recognizing individual differences can be overcome amid the activity of a slaughterhouse. This is a task which would be far from easy even for trained technicians in laboratories to perform — how much more so for persons engaged in the occupation of slaughtering animals!

B.

DECLARATIONS OF RABBINIC AUTHORITIES THAT SHECHITA IS RELIGIOUS LAW AND THAT PRELIMINARY STUNNING IS PROHIBITED UNDER RELIGIOUS LAW

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In the course of the many battles in defense of *Shechita,* some of the enemies we had to face took it upon themselves to "quote Scriptures" to the Jews. Among them were non-Jewish clerics, Jewish laymen, and even one so-called "Rabbi". These opponents proclaimed that *Shechita* was not, strictly speaking, a Biblical ordinance — and that, in any event, certain preparatory methods were perfectly acceptable according to Jewish religious law. It was, therefore, of utmost importance to assert the primary of Jewry's religious authorities throughout the world. In country after country, proclamations were issued declaring the sanctity and inviolability of the laws of *Shechita,* and indirectly reaffirming the singular and exclusive right of these rabbis to render decisions in matters of Jewish religious law. On the following pages are reproduced a number of these important declarations affirming that *Shechita* is religious law and that preliminary stunning is prohibited under religious law.

List of Declarations:

Swiss Rabbinate, 1891
German and Austrian Rabbinates, 1894
German Rabbinate, 1914
Conference of Bavarian Rabbis, 1926
Rabbiner Seminar Berlin, 1931
Rabbinate in Poland, 1936
Vaad Hame'uchad — Vilna, 1936
Leading Rabbinic Authorities in Poland, 1937
Chief Rabbi Herzog, Jerusalem, 1942
Union of Orthodox Rabbis of the United States and Canada, 1943 and 1944
Chief Rabbi Herzog, Jerusalem, 1944
Chief Rabbi Hertz, London, 1945
Chief Rabbinate of Israel, 1953
Chief Rabbi Brodie and Haham Gaon, London, 1955
Chief Rabbi Jacobovits and Haham Gaon, London, 1968
Conference of European Rabbis, 1974

DECLARATION OF THE SWISS RABBINATE — 1891 *

addressed in May 1891 to the Swiss Bundesversammlung.

"'The opponents of our method of slaughtering allege that they do not fight against our religion; and they attempt to create the impression that only a limited and obstinate group of orthodox Jews deem Shechita *to be Divine command, while the liberal Jews do not think so. We, the presidents and rabbis of all the Swiss Jewish communities, declare unanimously in the name of our community of faith:* Our rite of slaughtering of animals is an integral part of our religious law. *There is no difference of opinion on this issue among our theologians. While it is true that some Jewish individuals at certain times and under special circumstances do not observe their religious laws strictly (a condition to be encountered in other confessions, too), there is no Jewish community which does not have ritual slaughter among its institutions.*

Any rabbi who dared to deny the religious importance and significance of ritual slaughter would, by expressing such an opinion, place himself beyond the pale of Judaism. The so-called "Rabbi" Dr. Stern, to whose expert opinion the appeal plaintiffs mainly refer, has subsequently announced that he has left the Jewish ranks. Shechita *is the foundation of many religious precepts.* Shechita *prohibition spells the destruction of a holy rite as well as the dissolution of the Jewish communities.'"*

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* Translated from "Politisches Jahrbuch der Schweizer Eidgenossenschaft", Bern 1892, p. 168.

DECLARATIONS OF THE RABBINATE IN GERMANY AND IN AUSTRIA — 1894

In Germany, in 1894, 259 rabbis as well as the representatives of 2301 Jewish communities presented a memorandum to the Reichstag in which they declared that the contention of the "Tierschutzvereine" that *Shechita* was not a binding religious law was erroneous; that, on the contrary, it was a Biblically-based religious precept [1].

DECLARATION

"Against false conceptions and incorrect descriptions, the undersigned rabbis in the Jewish communities of Germany declare: The ritual method of slaughtering is a religious law of Judaism which has its foundation both in the Bible and in the post-Biblical literature. According to this law, an animal may be slaughtered only if it is not injured at all in any of its essential organs. Stunning by means of a blow on the brain, slaughtering mask, shooting mask, etc., would therefore be tantamount to a prohibition and would force hundreds of thousands of adherents of the Jewish faith to refrain entirely from the use of the most important food in order not to burden their consciences with violation of a religious precept."

This declaration was read in the Chamber of Deputies of Baden on April 21, 1899 and in the German Reichstag on April 25, 1899 [2].

It was subsequently signed by the Rabbinate in Austria [3].

In January 1914 this declaration was signed again — by 239 German rabbis [4].

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1. Translated from German, see p. 56.
2. "Stenographische Berichte ueber die Verhandlungen des Reichstags", April 25, 1899, p. 1916.
3. Hirsch Hildesheimer, "Das Schächten", Berlin 1905, p. 18.
4. See p. 58.

Erklärung.

Gegenüber falſchen Anſchauungen und unrichtigen Darſtellungen erklären die unterzeichneten Rabbiner der jüdiſchen Gemeinden Deutſchlands:

Die rituelle Schlachtmethode iſt eine religiöſe Satzung des Judenthums, die im bibliſchen und nachbibliſchen Schriftthume ihre Begründung hat. Dieſer Satzung gemäß darf ein Thier nur dann geſchlachtet werden, wenn es in keinem ſeiner weſentlichen Organe irgendwie verletzt iſt. Die Betäubung durch Gehirnſchlag, Schlachtmaske, Schußmaske ꝛc. würde ſomit einem Verbote des Schächtens gleichkommen und Hunderttauſende von Bekennern des jüdiſchen Glaubens zwingen, auf den Genuß des wichtigſten Nahrungsmittels gänzlich zu verzichten, um nicht ihr Gewiſſen durch Uebertretung einer Religionsvorſchrift zu belaſten.

Berlin, im Januar 1894.

Dr. A. Ungerleider, Rabbiner, Berlin. Dr. J. Bamberger, Rabbiner, Königsberg i. Pr.
Dr. S. Maybaum, Rabbiner, Berlin. Dr. J. Hildesheimer, Rabbiner und Seminardirektor, Berlin.
Dr. W. Feilchenfeld, Oberrabbiner, Poſen. Dr. M. Horovitz, Rabbiner, Frankfurt a. M.
Dr. H. Plato, Rabbiner und Seminardirektor, Köln. Dr. Sg: Auerbach, Rabbiner, Halberſtadt.
Dr. M. Cahn, Provinzialrabbiner, Fulda.

J. Adler, Diſtriktsrabbiner, Kitzingen. Dr. M. Appel, Stadtrabbiner, Mannheim. Dr. Aſchkanaze, Rabbiner, Niederſept (Elſaß). Dr. J. Auerbach, Rabbiner, Elberfeld. L. Auerbach, Rabbiner, Gollub (Weſtpr.). Dr. S. Baeck, Rabbiner, Liſſa (Poſen). Dr. B. Baer, Rabbiner, Graudenz. Dr. O. Bähr, Rabbiner, Prenzlau. M. L. Bamberger, Diſtriktsrabbiner, Kiſſingen. N. Bamberger, Diſtriktsrabbiner, Würzburg. S. Bamberger, Diſtriktsrabbiner, Semnheim. S. Bamberger, Diſtriktsrabbiner, Aſchaffenburg. Dr. S. Bamberger, Rabbiner, Schrimm. Dr. S. Bamberger, Rabbiner, Bingen. Dr. E. Baneth, Rabbiner, Krotoſchin. Dr. J. Bafffreund, Oberrabbiner, Trier. M. Berlinger, Bezirksrabbiner, Braunsbach. S. Bernheim, Rabbiner, Saargemünd. Dr. Max Biram, Rabbiner, Hirſchberg (Schleſien). Dr. A. Bloch, Rabbiner, Sulz u. W. (Elſaß). J. Bloch, Rabbiner, Biſchheim (Elſaß). L. Bloch, Rabbiner, Hagenau. Dr. Ph. Bloch, Rabbiner der Brüdergemeinde, Poſen. S. M. Bloch, Bezirksrabbiner, Jarotſchin. F. Blum, Rabbiner, Pfalzburg (Lothr.). A. Blumenfeld, Rabbiner, Schweidnitz. Dr. A. Blumenthal, Rabbiner, Ratibor. Dr. M. Blumenthal, Rabbiner, Frankfurt a. O. Dr. J. Bondi, Rabbiner, Mainz. S. Brann, Rabbiner, Schneidemühl (Poſen). Dr. J. Brann, Rabbiner, Pr. Stargard. Dr. S. Breuer, Rabbiner, Frankfurt a. M. M. Broh, Rabbiner, Obornik (Poſen). Dr. Buttenwieſer, Rabbiner der Israelitiſchen Religionsgeſellſchaft, Straßburg (Elſaß). Dr. S. Carlebach, Rabbiner, Lübeck. H. Caro, Orts- und Kreisrabbiner, Lobau (Preußen). E. Chaim, Rabbiner, Znin (Poſen). Dr. S. Chodowski, Rabbiner, Oels (Ober-Schleſien). Dr. A. Cohn, Diſtriktsrabbiner, Jchenhauſen (Bayern.). Dr J. Cohn, Rabbiner, Bonn. Dr. J. Cohn, Rabbiner, Burgkunſtadt (Bayern). Dr. J. Cohn, Rabbiner, Kattowitz (Ober-Schleſien). J. Cohn, Rabbinatsaſſeſſor, Altona. Dr. J. Cohn, Rabbiner, Wreſchen (Poſen). Dr. Salomon Cohn, Rabbiner, Berlin. S. H. Cohn, Rabbiner, Zirke (Poſen). Dr. T. Cohn, Rabbiner, Potsdam. Dr. E. David, Rabbiner, Düſſeldorf. L. David, Rabbiner, Lautenburg (Weſtpreußen). Dr. M. Deſſauer, Herzoglich S.-Meiningenſcher Landrabbiner, Meiningen. Dr. H. Deutſch, Diſtriktsrabbiner, Burgkreppach (Bayern). Dr J. Deutſch, Rabbiner, Sohrau (Schleſien). Dr M. Dienſtfertig, Rabbiner, Kottbus. H. L. Dreyfuß, Rabbiner, Zabern (Elſaß). J. Dreyfuß, Rabbiner, Brumath (Elſaß). Dr. A. Eckſtein, Diſtriktsrabbiner, Bamberg. Dr. Ehrentreu, Rabbiner, München. Dr. A. Einſtein, Rabbiner, Laufheim (Württemberg). M. Elgunther, Prediger, Neiße. Dr. B. Elſaß, Rabbiner, Landsberg a. W. Dr. S. Eppenſtein, Rabbiner, Briesen (Weſtpreußen). Dr. J. Eſchelbacher, Bezirksrabbiner, Bruchſal (Baden). Dr. F. Feilchenfeld, Landrabbiner, Schwerin (Mecklenburg). Dr. S. Fehler, Rabbiner, Halle a. S. Dr. S. Flaſchner, Rabbiner, Bernburg (Anhalt). Dr. A. Frank, Rabbiner der Synagogengemeinde, Köln. Dr. M. Freudenthal, Landesrabbiner des Herzogthums Anhalt, Deſſau. Dr. S. Freund, Rabbiner, Czarnikau. Dr. S. Freund, Rabbiner, Görlitz. Dr. S. Fried, Bezirksrabbiner, Ulm (Württemberg). S. Friedeberg, Rabbiner der Kreis-Synagogengemeinde, Tilſit. Dr. B. Friedmann, Rabbiner, Grätz. Dr. Friedmann, Rabbiner, Lublinitz. Dr. M. Ginsburger, Rabbiner, Sulz-Gebweiler (Elſaß). Goldmann, Kreisrabbiner, Eſchwege (Heſſen). Dr. J. Goldſchmidt, Rabbiner, Offenbach a. M. Dr. S. Goldſchmidt, Rabbiner, Kolberg. Dr. S. Goldſchmidt, Rabbiner, Königshütte (Oberſchleſien). Dr. A. Goldſtein, Rabbiner, Mutzig, (Elſaß). Dr. B. Grabowski, Rabbiner, Konitz (Weſtpreußen). M. Graetz, Rabbiner, Schroda (Poſen). Dr. S. Gronemann, Landrabbiner, Hannover. Dr. H. Groß, Diſtriktsrabbiner,

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Mayer**, Bezirksrabbiner, Bühl (Baden). Dr. **J. Mayer**, Bezirksrabbiner, Zweibrücken (Bayern). **B. Meyer**, Rabbiner, Lauterburg (Elsaß). Dr. **S. Meyer**, Distriktsrabbiner, Regensburg. **S. Mock**, Oberrabbiner, Mühlhausen. Dr. **J. Mühlfelder**, Rabbiner, Chemnitz. Dr. **J. Münz**, Rabbiner, Berent. Dr. **L. Münz**, Rabbiner, Kempen (Posen). Dr. **W. Münz**, Rabbiner, Gleiwitz. **E. Munk**, Rabbinatsassessor, Altona. Dr. **L. Munk**, Provinzialrabbiner, Marburg. Dr. **N. Netter**, Rabbiner, Buchsweiler (Elsaß). Dr. **V. Nordheimer**, Rabbiner, Schwetz. Dr. **Neubürger**, Stadt- und Distriktsrabbiner, Fürth, zugleich Verweser des Distriktsrabbinates Baiersdorf und des Distriktsrabbinates Hagenbach. Dr. **M. Olitzki**, Rabbiner, Allenstein. Dr. **G. Oppenheim**, Rabbiner, Landau. Dr. **M. Peritz**, Rabbiner, Liegnitz. Dr. **J. Perles**, Rabbiner, München. Dr. **G. Perlitz**, Rabbiner, Rakel. **E. Picard**, Rabbiner, Raudegg. Dr. **L. Pick**, Rabbiner, Pyritz. 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Salvendi**, Distriktsrabbiner, Dürkheim a. H. Dr. **M. Salzberger**, Rabbiner, Erfurt. Dr. **M. Salzer**, Gr. Sächs. Landrabbiner, Stadtlengsfeld (Sachsen-Weimar). Dr. **L. Samter**, Rabbiner der Synagogengemeinde Grünberg (Schlesien). Dr. **Samter**, Rabbiner, Waldenburg. Dr. **Samuel**, Rabbiner, Essen. Dr. **N. Sandler**, Rabbiner, Schwedt in der Mark. Dr. **L. Schick**, Rabbiner, Zempelburg (Westpreußen). Dr. **S. Schiffer**, Rabbiner der Israelitischen Religionsgesellschaft, Karlsruhe Dr. **M. Schlesinger**, Rabbiner, Pinne. **L. Schlesinger**, Bezirksrabbiner, Bretten. Dr. **Ph. Schönberger**, Rabbiner, Nordhausen. **S. B. Schreiber**, Rabbiner, Schildberg. **S. H. Schüler**, Rabbiner, Bolweiler. Rabbiner Dr. **E. Seligmann**, Prediger am Israelitischen Tempel in Hamburg. Dr. **B. Seligkowitz**, Rabbiner, Cöthen. Dr. **D. Selver**, Rabbiner, Darmstadt. Dr. **M. Silberstein**, Stadt- und Bezirksrabbiner, Wiesbaden. Dr. **S. Silberstein**, Rabbiner, Elbing. Dr. **M. Singer**, Rabbiner, Coblenz Dr. **H. Sondheimer**, Bezirks- und Conferenzrabbiner, Heidelberg. Dr. **J. Spitz**, Bezirksrabbiner, Gailingen (Baden). Dr. **M. Staripolski**, Rabbiner, Quatzenheim. Dr. **M. Steckelmacher**, Conferenz- und I. Stadtrabbiner, Mannheim (Baden). Dr. **A. Stein**, Rabbiner, Worms. Dr. **S. Stein**, Distriktsrabbiner, Schweinfurt. **J. Stern**, Rabbiner, Strelno. Dr. **M. Stern**, Rabbiner, Kiel. Dr. **Stiebel**, Rabbiner, Strasburg i. W. Dr. **Stier**, Rabbiner, Berlin. Dr. **D. Stößel**, Rabbiner, Stuttgart. **J. Strauß**, Kreisrabbiner, Rotenburg a. d. F. Dr. **A. Tawrogi**, Rabbiner, Kreuznach Dr. **J. Theodor**, Rabbiner, Bojanowo. Dr. **L. Treitel**, Rabbiner, Karlsruhe. **A. Ury**, Oberrabbiner von Lothringen, Metz. Dr. **H. Vogelstein**, Rabbiner, Stettin. **S. Waeldler**, Rabbiner, Schönlanke. **B. Wahl**, Rabbiner, Schlettstadt. Dr. **G. Walter**, Rabbiner, Bromberg. **J. Weil**, Oberrabbiner von Oberelsaß, Colmar. **J. Weil**, Oberrabbiner von Straßburg i. E. und des Unterelsaß. Dr. **E. Weill**, Rabbiner, Jegershein. **K. Weill**, Rabbiner, Rappoltsweiler i E. **M. Weinberg**, Rabbiner, Insterburg. Dr. **L. Weingarten**, Bezirksrabbiner, Ems. Dr. **S. Weisse**, Rabbiner, Berlin. Dr. **E. Werner**, Rabbiner, Danzig. Dr. **H. Werner**, Distriktsrabbiner, Burgebrach. Dr. **A. Wiener**, Rabbiner, Oppeln. **M. Wimphen**, Rabbiner, Maursmünster i. E. Dr. **J. Winter**, Rabbiner, Dresden. **L. Wißmann**, Distriktsrabbiner, Schwabach. **J. Wittelshöfer**, Distriktsrabbiner, Floß (Oberpfalz). Dr. **A. Wolff**, Rabbiner, Haigerloch. Dr. **Wolfssohn**, Rabbiner, Stargard i. Pomm. Dr. **L. Wreschner**, Rabbiner, Samter. **J. M. Wurmser**, Rabbiner, Thann i. E. Dr. **J. Zivi**, Rabbiner, Winzenheim(Elsaß). Dr. **B. Ziemlich**, Rabbiner, Nürnberg. Dr. **M. S. Zuckermandel**, Rabbiner, Pleschen.

The same Declaration was signed in Berlin in January 1914 by the following Rabbis:

Dr. M. Appel, Konferenzrabbiner, Karlsruhe (Baden). *Dr. E. Appel,* Bingen a. Rhein. *Dr. L. Baeck,* Rabbiner, Berlin. *Dr. Bähr,* Rabbiner, Prenzlau. *Dr. Bamberger,* Rabbiner, Hamburg. *Dr. Bamberger,* Provinzialrabbiner, Hanau. *Dr. S. Bamberger,* Rabbiner, Kissingen. *Dr. M.L. Bamberger,* Rabbiner, Schönlanke. *Dr. S. Bamberger,* Rabbiner, Sennheim. *Dr. J. Bamberger,* Wandsbeck. *N. Bamberger,* Distriktsrabbiner, Würzburg. *Dr. Baron,* Rabbiner, Hirschberg. *Dr. Baron,* Rabbiner, Kolberg. *Dr. J. Bassfreund,* Oberrabbiner, Trier. *H. Bassfreund,* Rabbiner, Pinne. *Dr. Beermann,* Rabbiner, Insterburg. *Dr. H. Berger,* Rabbiner, Berlin. *Dr. J. Bergmann,* Rabbiner, Berlin. *Dr. Berliner,* Rabbiner, Braunsbach. *Dr. J. Bleichrode,* Rabbiner, Berlin. *Dr. J. Bloch,* Rabbiner, Barr-i. Els. *Prof. Dr. Bloch,* Rabbiner, Posen. *Dr. A. Bloch,* Rabbiner, Oberehnheim. *Dr. C. Bloch,* Rabbiner, Mühlhauscen. *Dr. F. Blum,* Rabbiner, Mühlhausen. *Dr. L. Blumenthal,* Rabbiner, Berlin. *Dr. Braunschweiger,* Rabbiner, Rybnick. *Dr. Caro,* Rabbiner, Köln. a. Rh. *Dr. H. Casper,* Rabbiner, Obersitzko. *Dr. N. Cohn,* Distriktsrabbiner, Burgpreppach. *Dr. J. Cohn,* Rabbiner, Eschwege. *Dr. E. Cohn,* Rabbiner, Essen (Ruhr). *Dr. A. Cohn,* Distriktsrabbiner, Ichenhausen. *Dr. Cohn,* Rabbiner, Kattowitz. *G. Cohn,* Rabbiner, Krotoschin. *Dr. J. Cohn,* Rabbiner, Rawitsch. *Dr. David,* Rabbiner, Bochum. *Dr. Debre,* Rabbiner, Saar-Union. *Dr. Dienemann,* Rabbiner, Ratibor. *Dr. Doctor,* Rabbiner, Cassel. *Dr. H. Dreyfuss,* Rabbiner, Mörchingen. *Dr. J. Dreyfuss,* Rabbiner, Saargemünd. *Dr. L. Dünner,* Rabbiner, Rogasen. *Dr. A. Eckstein,* Rabbiner, Bamberg. *Dr. B. Einstein,* Rabbiner, Landau. *Dr. M. Ellguther,* Rabbiner, Neisse. *Dr. Elsass,* Rabbiner, Landsberg a.W. *Dr. J. Eschelbacher,* Rabbiner, Berlin. *Dr. M. Eschelbacher,* Rabbiner. Düsseldorf. *Dr. Frank,* Rabbiner, Köln a.Rh. *Dr. L. Fränkel,* Landrabbiner, Meiningen. *Dr. Freudenthal,* Rabbiner, Nürnberg. *Dr. Freund,* Rabbiner, Görlitz. *Dr. S. Freund,* Rabbiner, Hannover. *Dr. Friedmann,* Rabbiner, Lublinitz. *Dr. Friedmann,* Rabbiner, Wongrowitz. *Dr. H. Fuchs,* Rabbiner, Chemnitz. *Dr. Galliner,* Rabbiner, Beuthen O.S. *Dr. Galliner,* Rabbiner, Berlin. *Dr. S. Gelles,* Rabbiner, Lissa. *Dr. M. Ginsburger,* Rabbiner, Gebweiler i.Els. *Dr. E. Goitein,* Rabbiner, Charlottenburg. *Dr. F. Goldmann,* Rabbiner, Oppeln. *Dr. Goldschmidt,* Rabbiner, Kolberg. *Dr. S. Goldschmidt,* Rabbiner, Königshütte OS. *Dr. J. Goldschmidt,* Rabbiner, Offenbach a.M. *Dr. Grabowski,* Rabbiner, Barmen. *Dr. Gradenwitz,* Rabbiner, Tarnowitz OS. *Dr.*

Gronemann, Landrabbiner, Hannover. *Dr. N. Grünfeld,* Rabbiner, Augsburg. *Dr. Grünfeld,* Rabbiner, Berlin. *Dr. J. Grzymisch,* Rabbiner, Burchsal. *Dr. M. Guggenhofen,* Rabbiner, Westhofen. *Prof. Dr. Guttmann,* Rabbiner, Breslau. *Dr. Guttmann,* Rabbiner, Culm. *Dr. Ph. de Haas,* Rabbiner, Kattowitz OS. *Dr. R. Halperssohn,* Rabbiner, Briesen. *Dr. Hannover,* Rabbiner, Köln a.Rh. *Dr. Heppner,* Rabbiner, Koschmin. *Dr. M. Hildesheimer,* Rabbiner, Berlin. *Dr. S. Hochfeld,* Rabbiner, Berlin. *Dr. D. Hoffmann,* Dozent and Rabbinerseminar Berlin. *Dr. Hoffmann,* Landrabbiner, Emden. *Dr. J. Holzer,* Rabbiner, Worms a.Rhein. *Dr. J. Horovitz,* Rabbiner, Frankfurt a.M. *Dr. L. Höxter,* Rabbiner, Berlin. *Dr. Jacob,* Rabbiner, Dortmund. *Dr. M. Jacobsohn,* Rabbiner, Gnesen. *Dr. S. Jampel,* Rabbiner, Schwedt a.O. *Dr. Jannowitz,* Rabbiner, Berlin. *Dr. M. Joseph,* Rabbiner, Stolp i.P. *Dr. Italiener,* Rabbiner, Darmstadt. *Dr. S. Kaatz,* Zarbze. *Dr. Kaelter,* Rabbiner, Danzig. *Dr. A. Kahlberg,* Rabbiner, Halle a.S. *Dr. L. Kahn,* Rabbiner, Heilbronn. *Dr. M. Kahn,* Rabbiner, Mergentheim. *Dr. E. Kalischer,* Rabbiner, Bonn a.Rh. *Kamerase,* Rabbiner, Neukölln. *Dr. G. Kantorowsky,* Rabbiner, Bernburg. *Dr. Klein,* Rabbiner, Nürnberg. *Dr. A. Kober,* Rabbiner, Wiesbaden. *Dr. L. Koch,* Rabbiner, Weissenburg. *Dr. J. Kohn,* Rabbiner, Hohensalza. *Dr. Königsberger,* Rabbiner, Berlin. *Dr. M. Kopfstein,* Rabbiner, Beuthen OS. *Dr. L. Krause,* Rabbiner, Posen. *Dr. Krauss,* Rabbiner Schildberg. *Dr. Kroner,* Rabbiner, Oberdorf-Bopfingen. *Dr. Kroner,* Kirchenrat, Stuttgart. *Dr. E. Landau,* Rabbiner, Weilburg. *Dr. A. Lazarus,* Rabbiner, Frankfurt a.M. *Dr. S. Lehmann,* Rabbiner, Bischweiler. *Dr. Leimdörfer,* Rabbiner, Hamburg. *Dr. M. Lerner,* Oberrabbiner, Altona. *Dr. M. Levy,* Rabbiner, Altona. *Dr. Levi,* Rabbiner, Breslau. *Dr. A. Levy,* Rabbiner, Berlin. *Dr. E. Levy,* Rabbiner, Berlin. *Dr. J. A. Levy,* Rabbiner, Brumath. *Dr. M. Levy,* Rabbiner, Hagenau. *Dr. A. Levy,* Rabbiner, Nordhausen. *Dr. J. Levy,* Rabbiner, Saarburg. *Dr. Lewin,* Rabbiner, Kempen. *Dr. M. Lewin,* Rabbiner, Wreschen. *Dr. A. Lewinsky,* Rabbiner, Hildesheim. *Dr. J. Lewit,* Rabbiner, Alzey. *Dr. J. Lewkowitz,* Rabbiner, Berlin. *Dr. W. Lewy,* Rabbiner, Charlottenburg. *Dr. J. Lichtig,* Rabbiner, Hamburg. *Dr. A. Liebermann,* Rabbiner, Berlin. *Dr. O. Lipschütz,* Rabbiner, Berlin. *Dr. Loewenstamm,* Rabbiner, Pless. *Dr. L. Loewenstein,* Bezirksrabbiner, Mosbach. *Dr. L. Loevy,* Rabbiner, Graudenz. *Dr. A. Löwenthal,* Rabbiner, Hamburg. *Dr. Lucas,* Rabbiner, Glogau. *Dr. Mannheimer,* Landrabbiner, Oldenburg. *Dr. Marx,* Rabbiner, Strassburg i.Els. *Prof. Dr. S. Maybaum,* Rabbiner, Berlin. *Dr. B. Mayer,* Rabbiner, Bühl. *Dr. S. Meyer,*

Distriktsrabbiner, Regensburg. *Dr. B. Meyer,* Rabbiner, Thann. *Michalski,* Rabbiner, Recklinghausen. *Dr. E. Munk,* Rabbiner, Berlin. *Dr. L. Munk,* Provinzialrabbiner, Marburg. *Dr. J. Münz,* Rabbiner, Berent. *Dr. W. Münz,* Rabbiner, Gleiwitz. *Dr. Netter,* Oberrabbiner, Metz. *Dr. J. Neubürger,* Rabbiner, Fürth i.B. *Dr. Neuhaus,* Rabbiner, Ostrowo. *Dr. Neumark,* Rabbiner, Duisburg. *Dr. Nischkowsky,* Rabbiner, Kattowitz O.S. *J. Nobel,* Rabbiner, Filehne. *Dr. Nobel,* Rabbiner, Halberstadt. *Dr. N. A. Nobel,* Rabbiner, Frankfurt a.M. *Dr. M. Olitzki,* Rabbiner, Allenstein. *Dr. M. Peritz,* Rabbiner, Liegnitz. *Dr. Perlitz,* Rabbiner, Nakel. *Dr. F. Perles,* Rabbiner, Königsberg. *Dr. M. Petuchowski,* Rabbiner, Berlin. *Dr. Pick,* Rabbiner, Strassburg, Westpr. *Dr. H. Pinkus,* Rabbiner, Heidelberg. *Dr. J. Plato,* Rabbiner, Hamburg. *Dr. Posner,* Rabbiner, Cottbus. *Dr. N. Porges,* Rabbiner, Leipzig. *Dr. Rawicz,* Rabbiner, Berlin. *Dr. J. Rösel,* Kreisrabbiner, Tilsit. *Dr. L. Rosenak,* Rabbiner, Bremen. *Dr. Rosenberg,* Rabbiner, Thorn. *Dr. L. A. Rosenthal,* Rabbiner, Berlin. *Dr. Rosenthal,* Rabbiner, Breslau. *Dr. Rosenthal,* Rabbiner, Cöln/Rh. *Dr. A. Rosenzweig,* Rabbiner, Berlin. *Dr. S. Rülf,* Landesrabbiner, Braunschweig. *Dr. J. Saenger,* Rabbiner, Berlin. *Prof. Dr. Salfeld,* Grossherz. Hess. Rabbiner, Mainz. *Dr. F. Salomon,* Rabbiner, Bayreuth. *Dr. Salomonski,* Rabbiner, Frankfurt O. *Dr. Salzberger,* Rabbiner, Erfurt. *Dr. Salzberger,* Rabbiner, Frankfurt/M. *Dr. Samuel,* Rabbiner, Essen a.d. Ruhr. *Dr. Sander,* Grossherz. Provinzialrabb., Giessen. *Dr. L. Schlesinger,* Rabbiner, Bretten. *Dr. H. Schreiber,* Rabbiner, Postdam. *Dr. S. Schüler,* Rabbiner, St. Ludwig. *Dr. E. Schwarz,* Rabbiner, Sulz u.W. *Dr. A. Schweizer,* Horb a.Neckar. *Dr. Seligkowitz,* Rabbiner, Cöthen. *Dr. E. Seligmann,* Rabbiner, Frankfurt/M. *Dr. Silberberg,* Rabbiner, Schrimm. *Dr. Silberstein,* Rabbiner, Schwerin. *Dr. Silberstein,* Rabbiner, Stargard i.P. *Dr. J. Sonderlin,* Rabbiner, Hamburg. *Dr. Spak,* Rabbiner, Lauenburg. *Dr. Spitz,* Rabbiner, Gailingen. *Dr. J. Spitzer,* Oberrabbiner, Hamburg. *Dr. Staripolski,* Rabbiner, Zabern. *Dr. M. Steckelmacher,* Konferenz-u. Stadtrabbiner, Mannheim. *Dr. L. Stein,* Rabbiner, Dresden. *Dr. Stein,* Rabbiner, Memel. *Dr. Stein,* Distriktsrabbiner, Schweinfurt. *Dr. A. Steingut,* Rabbiner, Hamburg. *Dr. J. Stier,* Rabbiner, Berlin. *Dr. Stössel,* Rabbiner, Stuttgart. *Dr. F. Strassburger,* Rabbiner, Hoppstädten. *Dr. J. Strassburger,* Rabbiner, Ulm a.D. *Dr. Tänzer,* Rabbiner, Göttingen. *Dr. Tawrogi,* Rabbiner, Kreuznach. *Dr. Theodor,* Rabbiner, Bojanowo. *Dr. C. Tirschtigel,* Rabbiner, Kenitz. *Dr. Treitel,* Rabbiner, Laupheim. *Dr. Uhry,* Rabbiner, Schlettstadt. *Dr. A. Ury,* Rabbiner, Strassburg i.E. *Dr. H. Vogelstein,* Rab-

biner, Königsberg i.Pr. *Dr. Walter,* Rabbiner, Bromberg. *Dr. M. Warschauer,* Rabbiner, Berlin. *Dr. J. Weil,* Rabbiner, Colmar i.Els. *Dr. K. Weil,* Rabbiner, Rappoltsweiler. *Dr. M. Weinberg,* Rabbiner, Neumarkt. *Dr. Weingarten,* Rabbiner, Ems. *Dr. Werner,* Rabbiner, München. *Dr. S. Weisse,* Rabbiner, Berlin. *Dr. M. Wiener,* Rabbiner, Stettin. *Dr. G. Wilde,* Rabbiner, Magdeburg. *Prof. Dr. Winter,* Rabbiner, Dresden. *Dr. Winter,* Rabbiner, Homburg v.d.H. *Dr. M. Winter,* Rabbiner, Königsberg i. Pr. *Dr. Weyl,* Rabbiner, Czarnikau. *Dr. N. Wohlberg,* Rabbiner, Berlin. *Dr. Wohlgemuth,* Distriktsrabbiner, Kitzingen a.M. *Dr. Worms,* Rabbiner, Stettin. *Dr. Wreschner,* Rabbiner, Santer. *Dr. Zimels,* Bezirksrabbiner, Freiburg i.B. *Dr. J. Zivi,* Rabbiner, Winzenheim. *Dr. J. Zlocisti,* Pr. Stargard.

DECLARATION BY THE CONFERENCE OF BAVARIAN RABBIS — 1926 *

The conference of the Bavarian Rabbis considered it its duty to make also their own declaration in response to Professor Mueller's (1) statement:

1. Jewish religious law is based on written and oral tradition; it cannot be derived solely from the exact wording of Bible quotations without knowledge of the Tradition. Dr. Mueller's assertions (we cannot deal here with his view of religious history) misjudge this fact. The author reaches mistaken conclusions, as is easily understandable, since he is not familiar with the Jewish tradition.

2. Judaism — as every other religious community — has to demand that the decision on what is religiously binding must be made by its own religious leaders and not by persons outside its community. The religious leaders and authorities of the Jewish Community, especially the "General German Rabbinical Council" and the undersigned Conference of Bavarian Rabbis have, however, until the present day repeatedly and unanimously declared that *Shechita* slaughter subsequent to the anaesthesia of the animals by means of shock or a shot is not in accordance with Ritual Law. Attempts to achieve anaesthesia by chemical means have not progressed sufficiently so far as to permit a definitive opinion on the possibility of their practical use and their ritual admissibility.

3. On the question of whether ritual slaughtering is connected with greater suffering for the animals to be killed than other slaughtering methods, there the opinions on the part of the autho-

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* Published in the German press.

1. At a session of the Bavarian *Landtag* on July 8, 1926 a statement by the Professor of veterinary hygiene, Dr. Max Mueller of Munich, was read declaring that stunning by electricity is in accordance with Jewish religious law.

rities on animal psychology and veterinary medicine still differ widely. Science has certainly not arrived at a clearcut judgment on this point. The purely emotional attitude of non-experts cannot be decisive here.

We, therefore, view the proposed law that would interfere with the ritual slaughtering method practised by our religious community for millenia as an encroachment on the religious freedom constitutionally granted to us as to all citizens.

Munich, December 14, 1926

Conference of Bavarian Rabbis

Erklärung der bayerischen Rabbinerkonferenz.

Die Konferenz der bayerischen Rabbiner sah sich veranlaßt, auf die Ausführungen von Professor Müller auch seinerseits eine Erklärung abzugeben:

1. Das jüdische Religionsgesetz beruht auf schriftlicher und mündlicher Ueberlieferung; es kann aus dem Wortlaut von Bibelstellen allein ohne Kenntnis der Tradition nicht entnommen werden. Die Darlegungen des Professors Dr. Müller, mit deren religionsgeschichtlichen Grundlagen wir uns in der Tagespresse nicht auseinandersetzen können, verkennen diese Tatsache. Der Verfasser gelangt, weil, wie leicht verständlich, mit der jüdischen Tradition nicht vertraut, zu verfehlten Schlüssen.

2. Das Judentum muß wie jede Religionsgemeinschaft verlangen, daß die Entscheidung darüber, was religiös verbindlich ist, von seinen eigenen religiösen Führern, nicht von Personen getroffen wird, die außerhalb seiner Gemeinschaft stehen. Die religiösen Instanzen des Judentums, insbesondere der Allgemeine Deutsche Rabbinerverband und die unterfertigte Bayerische Rabbinerkonferenz, haben aber bis in die jüngste Zeit hinein wiederholt einmütig erklärt, daß die Schächtung nach vorhergegangener Betäubung der Schlachttiere durch Schlag oder Schuß den Ritualvorschriften nicht entspricht. Die Versuche der Betäubung durch chemische Mittel sind noch nicht so weit gediehen, daß über die Möglichkeit ihrer praktischen Verwendung und ihrer rituellen Zulässigkeit ein abschließendes Urteil erlaubt wäre.

3. Ob das rituelle Schächten mit größeren Qualen für die Schlachttiere verbunden ist als andere Schlachtmethoden, darüber gehen die Meinungen der Autoritäten der Tierpsychologie und Tiermedizin immer noch weit auseinander. Es liegt hier keineswegs ein einhelliges Urteil der Wissenschaft vor. Die rein gefühlsmäßige Einstellung nicht sachkundiger Personen kann hier nicht entscheiden.

Wir erblicken daher in dem durch die Gesetzgebung beabsichtigten Eingriff in die von unserer Religionsgemeinschaft durch Jahrtausende geübte rituelle Schlachtmethode eine Verletzung der uns wie allen Staatsbürgern durch die Verfassung gewährleisteten Gewissensfreiheit.

München, 14. Dezember 1926.

Konferenz der bayerischen Rabbiner.

DECLARATION OF THE RABBINERSEMINAR ZU BERLIN — 1921 *

Berlin N. 24

Artillerie St. 31

June 12, 1931

In reply to the question addressed to us whether *Shechita,* Judaism's traditional method of slaughtering for food, is to be regarded as modifiable in the course of time or, on the contrary, as unalterable religious law, we state as follows:

Already in the year 1894, all Germany's Rabbis, irrespective of their particular religious movements, declared solemnly that the

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LETTERS OF RABBI DR. J. WEINBERG, RECTOR OF THE RABBINER SEMINAR,*

to remove certain doubts, which had arisen after the above Declaration.

Dr. J. Weinberg

Berlin, 11th October 1935

Bambergerst. 3

To: The Central Office for Ritual Slaughter Matters,

Berlin NW 87

Siegmundshof 15

In reply to your letter of 10th October.

Your communication about my statement on the decision of the *Geonim* comes as a surprise to me. I believe, however, that I can explain the origin of the misunderstanding which has arisen. From repeated oral discussions with the *Geonim* I have gathered that they were led by two lines of thought, each of which is in itself sufficient to declare the electric process inadmissible. There are in the first place specific reasons, i.e. findings derived from the legislation concerning *trefa* (a non-viable animal) and *nebela* (carrion). Secondly, there are reasons of a general kind, which, however, are again based on religious law: If the notion has

* Translated from German.

Shechita method is founded on Biblical and post-Biblical Scriptures.

This law, as all other Biblical statutes, is immutable. Coercion to change this method, which would frustrate adherence to the slaughtering procedure or one of the conditions concerning the organic conditions of the animal, is tantamount to a prohibition of ritual slaughter *(Shechita)*.

Statements to the same effect have repeatedly been made collectively by the German Rabbis where necessary.

Also to the question of the applicability of up-to-date methods of anaesthesia, Rabbis of all religious movements, after joint consultation, have determined that none of them meets the requirements of religious law.

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gained currency that the ban of the *Geonim* does not rest on *Halachic* objections, I authorize you to declare in my name that this is incorrect. This you should do in order to make it clear that any reference to me that I said otherwise would be, quite decidedly, an error.

Yours faithfully,
(signed) *Rabbi Dr. J. Weinberg*

J. Weinberg

Berlin, 13th October 1935
Bambergerst. 3

To: The Central Bureau for Ritual Slaughter Matters.
Berlin NW 87
Siegmundshof 15

With reference to my reply of the 11th inst., I take this opportunity of bringing a few supplementary remarks to your attention.

It has become known to me that, concerning my opinion on electric stunning, given some time ago, the false rumor has gained

The correctness of these declarations by the Rabbis is hereby fully confirmed by us, and this applies also to current anaesthesiological technique.

To the
"Reichszentrale fuer
Schaechtangelegenheiten."
Berlin

On behalf of
The Faculty of the Rabbinical Seminary
(signed): Dr. Joseph Wohlgemuth

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currency that this opinion gives grounds for a *hetter* (permission). I could not possibly have arrived at a *hetter,* if only because by no means have all the points connected with this question been or could be examined by me. There are in this matter problems which have not yet been scientifically explained, and the fact that these problems remain unexplored is to be accounted for not by any lack of apparatus or study on the part of the scientists but by the intractable nature of the material.

As regards the attitude of the Rabbinical Seminary, I have expressed there the view that, in case any enquiry should be made, the Seminary will identify itself unequivocally with the *issur* (ban) which has been pronounced by the *Geonim.*

When Dr. Ehrenpreis, Chief Rabbi of Stockholm, informed me that, on account of his general religious attitude, he did not approve of the stand taken up by the orthodox, I replied to him that the heroism of German orthodoxy should decide even those who differed from them in doctrine to unite with them in national solidarity.

Yours faithfully,
(signed) *Rabbi Dr. J. Weinberg*

Rabbiner-Seminar zu Berlin
(Rektorat)

Berlin N. 24,
Artilleriestr. 31 12. Juni 1931.

Auf die an uns gerichtete Frage, ob das im Judentum herkömmliche Schlachtverfahren als zeitlich wandelbar oder vielmehr unverbrüchliche Religionssatzung zu erachten ist, erwidern wir:

Bereits im Jahre 1894 haben sämtliche Rabbiner Deutschlands ohne Unterschied der religiösen Richtung feierlich erklärt, dass die Schächtmethode im biblischen und nachbiblischen Schrifttum ihre Begründung hat.

Die Satzung ist wie alle biblischen Vorschriften unwandelbar. Der Zwang zu einer Abänderung des Verfahrens, welche die Innehaltung einer die Schlachtungsweise oder die Bedingungen über die organische Beschaffenheit des Schlachttieres vereitelt, steht einem Verbot des Schächtens gleich.

Erklärungen gleichen Inhalts sind aus gegebenen Anlässen zu wiederholten Malen von der Gesamtheit der deutschen Rabbiner abgegeben.

Auch ist zur Frage der Anwendbarkeit neuerer Betäubungsmethoden von den Rabbinern aller Richtungen in gemeinsamer Verhandlung festgestellt worden, dass keine von ihnen dem Religionsgesetz entspricht.

Die Richtigkeit dieser gutachtlichen Erklärungen der Rabbiner wird von uns auch in Ansehung der gegenwärtigen Betäubungstechnik vollauf bestätigt.

An die
Reichszentrale
f. Schächtangelegenheiten
Berlin.

RABBINER SEMINAR zu BERLIN

Das Dozentenkollegium
des Rabbinerseminars
Wolgemuth
Vorsitzender

DECLARATION OF THE RABBINATE IN POLAND — March 2, 1936[1][2]

"We, rabbis, guardians of the souls of the Jews of Poland, aware of the responsibility toward our and our co-religionists' consciences as well as toward the past and the future generations, declare:

"In accordance with the resolution adopted at the conference at Warsaw on February 13, 1936 (Shevat 20, 5696):

"The ritual method of slaughtering is one of the cardinal prescriptions of the Jewish religion. Any infringement of this prescription, whether by stunning preliminary to slaughter or by any other modification, renders the meat unconditionally forbidden to Jews (terefa). Porging (removal of veins) following a non-ritual slaughtering cannot alter this fact.

"In accordance with this, we must consider the bill proposed in the Sejm to prohibit ritual slaughtering an assault upon one of the fundamentals of the Jewish religion.

"We appeal to the sense of justice of the Polish people, government and legislative chambers not to permit this assault. Warsaw. March 2, 1936.

(Signed by 827 rabbis)"

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1. Translated from Polish.
2. In 1936 the Polish Sejm was considering legislation to restrict the operation of *Shechita* in Poland. The Administrative Committee of that body invited Father Trzeciak, a Catholic priest, who represented himself as an expert on Judaism and testified that *Shechita* was not a Jewish religious law. In reply, 827 rabbis of Poland, among them the greatest religious authorities of the generation, issued the above public declaration to the effect that *Shechita* was Jewish religious law. (See facsimile page 69).

OŚWIADCZENIE DUCHOWIEŃSTWA

ŻYDOWSKIEGO W POLSCE

W SPRAWIE

UBOJU RYTUALNEGO

O Ś W I A D C Z E N I E

My rabini, duszpasterze wyznania żydowskiego w Polsce, pomni odpowiedzialności wobec sumienia naszego i naszych współwyznawców, oraz wobec przeszłych i przyszłych pokoleń, oświadczamy, zgodnie z uchwałą powziętą na naradzie odbytej w Warszawie w dniu 13 lutego 1936 r., (20 szwat 5696 r.) co następuje:

Rytualny sposób uboju stanowi jeden z zasadniczych przepisów religji żydowskiej. Wszelkie naruszenie tego przepisu, bądź przez ogłuszenie przed aktem uboju, bądź przez jakąkolwiek inną zmianę, czyni mięso bezwzględnie wzbronione dla żydów (trefne). Wszelkie zaś "trybowanie" (wyżyławanie) po uboju nierytualnym, nie może zmienić postaci rzeczy.

W myśl powyższego, zgłoszony w Sejmie projekt ustawy o zakazie uboju rytualnego, uważać musimy za zamach na jedną z podstaw religji żydowskiej.

Apelujemy do poczucia sprawiedliwości społeczeństwa polskiego, Rządu Polskiego i Izb Ustawodawczych, aby do tego zamachu nie dopuścili."

Warszawa, 2 marca 1936 r.

Nazwy miast i nazwiska rabinow ulozone wedlug kolejnosci alfabetu.

1.	Adamow	rabin	(-)	Grynwald Judka
2.	Aleksandra	"	(-)	Epzstein N.
3.	Aleksandrowa Kuj.	"		Geldcaler Jakob
4.	Andrzejewo	"		Jabłonka Jankiel
5.	Annopul-Lub.	"		Finsterbusz Sz.
6.	Antopol, pow. Kobr.	"		Wołki I.
7.	Augustów	"		Kuszelewski Zelig
8.	Baranowicze	"		Wejcel D.
9.	Baranów	"		Horowitz Wigder
10.	Belz	"		Rokach Aron
11.	Belz	"		Szenkier H.
12.	Bereza Kartuska	"		Trop Josel Chaim
13.	Bereza Kartuska	"		Wygodzki Sender
14.	Berezno	"		Baradz Aron Ber
15.	" (Wołyń)	"		Peczęnik Icek
16.	Bereźnica	"		Bakuń R.L.
17.	Bedzin	"		Talner Sz.
18.	Bialo-Bielsko	"		dr. Hirszfeld Margnus
19.	Białobrzegi	"		Rajawski Sz. M.
20.	Bialowieza	"		Zonenberg Wolf
21.	Białozorka	"		Kaplan Ajzik
22.	Biały-stok	"		dr. Rosenmann Gdalja
23.	Bialystok	"		Szczedrowiski Majer
24.	Biecz	"		Halpern Ber
25.	"	"		Wagschal
26.	Bielica	"		Faja Sz.
27.	Bielsk Podl.	"		Bendas Moszek Hersz
28.	Biezun	"		Rotszyld A.M.
29.	Bilgoraj	"		Ropach Mordka
30.	Biroze	"		Spira Izrael Chaim
31.	Biskupice	"		Fridling H.
32.	Blaszki	"		Elberg Abram Nison
33.	Bledów	"		Szpiro J.B.
34.	Bobowo	"		Halbersztam Benzian
35.	Bobowo	podrabin		Halbersztam Salomon
36.	Bodzentyn	rabin		Szwarc Hersz
37.	Bugorja	"		Szwarc B.
38.	Bolechów	"		Landau Abr. M.
39.	Bolestawiec	"		Bomac I.F.
40.	Bolszowce	"		Kamer Szulim
41.	Boremel	"		Fromin Szaja
42.	Borisowka Bakszt	"		Szereszewski Majer
43.	Borszczów	"		Salomon Hersz
44.	Bransk	"		Cukierman W.
45.	Breslaw	"		Zacharje Abe
46.	Brodnica	"		Srebrnik Mojżesz
47.	Brody	"		Steinberg Mojżesz
48.	Brzesko	"		Lipszyc M.
49.	Brześć n/B	"		Klepfisz Lipa
50.	" "	"		Rier S.Z.
51.	" "	"		Solowiejczyk I.W.
52.	Brzany	"		Halpern Lejb
53.	Brzostek k/Jasla	"		Wolkenfeld
54.	Buczacz	"		Willig Fajwel
55.	Budslaw	"		Kamieniecki A.
56.	Budzanów	"		Babad Fajwel
57.	Bukaczowce	"		Szwarz Hersz
58.	Burzenino pow. Sieradzki	"		Mareko M.D.
59.	Busko z. Kielecka	"		Zawadzki Michael
60.	Bychawa	"		Grynbaum J.

61.	Bydgoszcz	rabin	Dr. Sonnenschein Efroim
62.	Bystrzyca k/Wilna	"	Lypszyc B.M.
63.	Byteń	"	Libermann Josel
64.	Chelm lubelsk.	"	Najhauz I. Szmul
65.	Checiny	"	Borensztejn Morka
66.	"	"	Chorowicz-Szternfeld I.B.
67.	Chmielnik	"	
68.	"	"	Sylman T.
69.	Chodecz	"	Poznanski Eljasz
70.	Chodel	"	Grosfersztand Pincus
71.	Chodorow	"	Eichensztajn Salomon
72.	Chomsk	"	Etingen A.
73.	Choroszcz	"	Rywlin L.
74.	Chorzele	"	Sokolower Mordka Chaim
75.	Chorzow	"	dr.Kohlberg Teodor
76.	Chrzanow	"	Halberstam
77.	"	"	Jerel L.
78.	Chyrow	"	Rymalt Majlech
79.	Ciechanow	"	Braunrot Ch.
80.	"	"	Sztejnberg M.I.
81.	Ciechocinek	"	Senior Chaim Juda
82.	Ciezkowice	"	Teitelbaum O.
83.	Czartorysk	"	Frenjiel H.
84.	Czeladz	"	Lewental L.H.
85.	Czemierniki	"	Feldman Froim
86.	Czernawczyce	"	Rejf Aron
87.	Czerwin	"	Frydman Chaim Nuta
88.	Czestochowa	"	Asz Nachum
89.	"	"	Dr.Hirszberg Joachim
90.	"	"	Flejplac Josef
91.	Czortkow	"	Szechter Lejb Majer
92.	Czudec	"	Herzig Naftali
93.	Czyzew	"	Zawlodawer Sz.D.
94.	Cmielow	"	Lajman Abram Josek
95.	Dawidgrodek	"	Gincburg Mowsza
96.	Dawidgrodek	"	Szapiro Zalman
97.	Dabie n.Nerem	"	Auerbach Szyja Hersz
98.	Dabrowa . k.Grodna	"	Kac Wolf
99.	Dabrowa k.Tarnowa	"	Wajdenfeld N.
100.	Dabrowa Gornicza	"	Epsztejn B.
101.	Dabrowica-Wol.	"	Zalcman J.
102.	Delatyn	"	Ehrlich N.
103.	Demidowka	"	Halperson Dawid
104.	Derazne Wol.	"	Jelinter Senier
105.	Dereczyn pow slonimski	"	Bakalczuk Hirsz
106.	Derewno pow Stolpecki	"	Pentelnikow A.L.
107.	Deblin	podrabin	Lichtenstein Mendel
108.	Dlugosiodlo	rabin	Pomeranc M.B.
109.	Dobra k.Turka	"	Bek I.
110.	Dobra k.Minska Maz.	"	Gilde Ch.M.
111.	Dobrzyce k.Krak.	"	Seelenreich
112.	Drohobycz	"	dr.Awigdor J.
113.	Dokszyce	"	Szejnin L.
114.	Dolina	"	Helberstamm K.
115.	"	"	Hollech Simon
116.	Dolhinow	"	Wilenski Gedalja
117.	Domaczewo	"	Gertner I.Sz.
118.	"	"	Lewinson J.
119.	Drobin	"	Kilbanski S.E.
120.	Drohiczyn	"	Bystryn A.

121.	Drohiczyn Pol.	rabin	Kalenkowicz A.J.
122.	Drohotycz	"	Nussenbaum W.
123.	Druja ziemia Wilenska	"	Gelman Mowsza
124.	Drujsk	"	Rymszyniat Szepsel
125.	Druzkopol	"	Jentys Aron
126.	" -Wol.	"	Weliczker M.S.
127.	Drzewica	"	Sochaczewskj Berek
128.	Dubienka	"	Kowartowski Sucher Ber
129.	Dubno	"	Gitman Ela
130.	"	"	Rozenfeld Heszel
131.	Dukla p.Krosno	"	Halberstamm Chaskiel
132.	Dukla	"	Seehman D.H.
133.	" p.Krosno	"	Seeman T.
134.	" " "	"	Spira Sz.
135.	Dukszty	"	Awigail Ber
136.	Danilowicze	"	Alperowicz Sz.
137.	Dworzec	"	Zumdziak B
138.	Dywin	"	Wajs Aron
139.	Dzialoszyce	"	Staszewski M.I.
140.	Dzialoszyn	podrabin	Bomac Icek M.
141.	Dziewieniszki pow.Oszm.	rabin	Tajcz Aron
142.	Dzisna	"	Bialostocki Szymon Lewi
143.	Ejszyszki p.Lidzki	"	Razowski Szymen
144.	Falenica (okreg)	"	Finkielsztein P.
145.	"	"	Wajcman Szaja
146.	Feldsztyn	"	Jclies Ch.Szm.
147.	Filipow	"	Wert J.
148.	Frysztak	"	Frydman R.
149.	"	"	Halberstam
150.	Garwolin	"	Rommer M.
151.	"	podrabin	Tenenbaum Sz.
152.	Gabin	rabin	Czarnoczapke H.
153.	"	"	Unger Zelman
154.	Glebokie pow Dzismienski	"	Kac J.
155.	Glusk	"	Szafirsztein I.D.
156.	Gniewoszow	"	Reiter Chaim L.
157.	Gniezno	"	dr.Kohn
158.	Goniadz	"	Szalamowicz Izrael
159.	Gorlice	"	Halberstamm
160.	"	"	Müller
161.	"	"	Teitelbaum
162.	Gorzkowice	"	Dawidowicz Sz.
163.	Gostynin	"	Borensztein I.M.
164.	Gowarczow	"	Szejlewicz Juda
165.	Goworowo ziemia lomzynska	"	Bursztyn A.M.
166.	Gora Kalwarja	"	Weinberg D.I.
167.	Grabowiec	"	Szor Aron Josef
168.	Grajewo	"	Grasman Iccok Ajzyk
169.	Grodno	"	Gelbort A.
170.	"	"	Gindes Fajwel
171.	"	"	Rakowicki Josel
172.	"	"	Rozowski Heszel
173.	"	"	Rubinzon Aron
174.	" przedmiescie	"	Szkopp M.M.
175.	"	"	Szkopp Szymon
176.	Grodek pow. bialostocki	podrabin	Margolis Szewel
177.	Grodek pow.Wil.	rabin	Garber Elja
178.	Grojec	"	Lipszyc E.
179.	Grudziadz	"	Bromberg Abram I.
180.	Grybow	"	Halberstam Boruch

181.	Hajnowka	rabin	Kop
182.	Hancewicze	"	Zuchowicki Fejsach
183.	Hermanowicze	"	Alperowicz Ajzyk
184.	Hoduciszki	"	Maszyc H.
185.	Holszany	"	Chodos R.
186.	Holubicze	"	Szmukler Alter Chil
187.	Horochow	"	Rajszer Majer Szmul
188.	Horodec k.Kobryn	"	Grynman A.
189.	Horodlow	"	Berman N.
190.	Horodno	"	Gluskin Ch.S.
192.	Horodyszcze	"	Remez M.L.
193.	Horodzieja pow Nieswieski	"	Perelman Ela
194.	Hoszcza pow Rowne	"	Rabinowicz G.L.
195.	Ignalino	"	Chait M.A.
196.	Ilja	"	Remez Abram
197.	Ilow	"	Lewi Z.
198.	Ilza	"	Unger Ch.M.
199.	Indura	"	Lewandersztejn Israel
200.	Irena(Deblin)	"	Rabinowicz E.G.
201.	Iwieniec	"	Gornicki Michel
202.	Iwje pow.Lidzki	"	Perelman Wolf
203.	Izabelin	"	Rabinowicz Fajtel
204.	Izbica Kujawska	"	Kohn B.
205.	" n/Wieprzem	"	Landau I.I.
206.	Jablonna	"	Dab J.Sz.
207.	"	"	J.Taub
208.	Jablonow	"	Cukierman Kielman
209.	Jadow	"	Waingott S.
210.	Jalowka	"	Lejbinkier Aron
211.	Janow	"	Kahan J,
212.	Janowo	"	Kaufman Gerszon Henoch
213.	"	"	Kosowski Josel
214.	Jaroslaw	"	Hermeling Pinkus
215.	"	"	Steinberg M.
216.	Jaslo	"	Baron
217.	Falenica	"	Finkielsztajn Pinkus
218.	Jaslo	"	Rubin M.
219.	Jaworzno	"	Hirszhorn Hersz
220.	"	"	Frenkiel I.
221.	Jedwabne	"	Bialostocki W.
222.	Jeremicze n/Niemnem	"	Mirecki L.
223.	Jesionowka	"	Bilicki G.
224.	Jezierna k/Warszawy	"	Rozencweig J.J.
225.	Jezierno	"	Schalita Lipa
226.	Jezierzany	"	Pfeffer J.
227.	Jeziernica	"	Michlin Perec
228.	Jeziory k/Grodka	"	Szlapak Sz.
229.	Jezow	"	Alfus Josek
230.	Jedrzejow	"	Wajnberg Szaja
231.	Jordanow	"	Schreiber J.
232.	Jozefow	"	Tarzeniewski Szymon
233.	Kalwarja	"	Blaugrund S.
234.	Kamieniec Litewski	"	Garfinkiel Sz.Ch.
235.	" "	"	Izszowski R.
236.	" "	"	Leibowicz Boruch Ber
237.	Kamien k. Iwienca	"	Cofin Gedala
238.	Kamiensk okr.Bozn.	"	Rabinowicz Rubin
239.	Kamionka pow.Lubel	"	Farbiarz Dawid
240.	"	"	Karpowski Morduch

241.	Katerburg	rabin	Spektor Aron Lejb
242.	Katowice	"	Chamajdes K.
243.	"	"	Dr.Vogelman M.
244.	Kazan Grodek	"	Rabinowicz B.
245.	Kepno (Poznanskie)	"	Halbersztam Markus
246.	Kielce	"	Grinszpan Herszel
247.	"	"	Rapoport Abel
248.	Kiwerce	"	Goldberg Aron
249.	Kleck	podrabin	Epsztejn Mowsza
250.	" p.Nieswiezski	rabin	Herenson Ch.Sz.
251.	Kleczew	"	Zawlodawer H
252.	Kleszczele	"	Solowej R.M.
253.	Klewan	"	Sztejman A.N.
254.	Klimontow (Okr. Bozn.)	"	Gelernter Symcha
255.	Klobuck p.Czestoch.	"	Goldberg I.H.
256.	Knihynicze pow Rohatyn	podrabin	Kimel H.
257.	Kobryn	"	Pruski Pejsach
258.	Kobylnik	rabin	Ajnbinder Lejb
259.	Kolbuszowa	"	Tejtelbaum Chil
260.	Kolno	"	Kaplan Sz.S.
261.	Kolki	"	Lejman J.Sz.
262.	Kolo	"	Zylber Margulies Ch.D.
263.	Kolobiel z. Warsz.	"	Lanaau L.
264.	Kolomyja	"	Lau
265.	" asesor	"	Tuhumin Chaim
266.	Komarno	"	Langierman Efroim D.
267.	"	"	Zuckerberg Alter
268.	Komarow woj.lubels.	"	Alterman Szyja
269.	Komarowka	"	Najman S.R.
270.	Konin	"	Lipszyc J.
271.	Konstantynow n/N.	"	Radzinski H.
272.	" Podl.	"	Szejnkind Jankiel
273.	Konskie	"	Rabinowicz Ch.
274.	Koprzywnica	"	Zoberman Szyja
275.	Kopyczynce	"	Rosenberg Abraham
276.	Korczyna	"	Rubin Eljasz
277.	Korelicze pow.Nowogrodzki	"	Wiernik Izrael
278.	Koryczyn p.sokolski	"	Mojzeson Ch.
279.	Korzec pow.Rowne	"	Baszktn N.
280.	" Woz	"	Zylberman Abram
281.	Kosow pow.Sokol.	"	Dam Fiszel
282.	" poleski	"	Swiatycki A.
283.	Kostopol Wolynski	"	Milman Mowsza
284.	Koszyce	"	Cynamon Chaim Major
285.	Kowel	"	Kierzener Froim
286.	"	"	Twierski Nahum Mojsze
287.	Kozieglowy	"	Gutensztejn Majer
288.	Kozin	"	Kliger Icko
289.	Kozlowszczyzna	"	Epsztejn Efroim
290.	Kozminek	"	Kohanstam Szulin H.
291.	Krakowiec	"	Klüger Mejer
292.	Krakow podgorze	"	Frenkiel O.
293.	" "	"	Frenkiel Symche
294.	" "	"	Kanner Ch.
295.	Krakow	"	Kornicer Samuel
296.	"	"	Rapoport Szapsa
297.	"	"	dr.Szmelkies Samuel
298.	"	"	dr.Thon Ozjasz
299.	"	"	Wachsenberg Nochem
300.	Krasnik Lub.	"	Wajsbrodt Dawid J.

301.	Krasnogrod	rabin	Margulies M.M.
302.	Krasnosielsk	"	Zylberberg Icek Josyf
303.	Krasnystaw	"	Czerwonykamien Abram
304.	Krewo p.Osmianski	"	Grajzel Berel
305.	Kroscienko	"	Baumejl
306.	Krylow	"	Szryger Lejb
307.	Krynica Zdroj	"	Tejtelbaum Abram Chaim
308.	" -	"	Zymetbaum Dawid
309.	Krymki	"	Myszkowski
310.	Krzemieniec	podrabin	Lerner S.D.
311.	Krzepice	rabin	Baumac Sz.
312.	"	"	Berlinski Kasryel
313.	Krzesiny	"	Polak Chaim Zelik
314.	Krzeszowice	"	Klingberg Mojzesz Chaim
315.	Krzeszow Lubelsk	"	Rojtman Chaim M.
316.	Krzywice p.wilenski	"	Perey M.
317.	Kurow	"	Guterman M.
318.	Kurzeniec	"	Feldman Mowsza
319.	" pow.wilenski	"	Uszpol E.
320.	Kutno	"	Trunk I.
321.	Kuznica	"	Eksztein M.
322.	Lachowicze	"	Korelicz Majer
323.	Landwarow z.wilenska	"	Krynicki Izrael ?ejer
324.	Lebodziew wilenskie	"	Lewin J.
325.	Legjono	"	Taub J.L.
326.	Losko	"	Granik Abraham
327.	"	podrabin	Horowitz Jakob
328.	Lezajsk	rabin	Landau Chaskiel
329.	Lida	"	Rabinowicz A.
330.	Limanowa	podrabin	Kornreich Abraham
331.	"	rabin	Tejtelbaum
332.	Lipniszki pow.lidski	"	Kostrzewski Ribin
333.	Lipno	"	Cukierkorn Sz.M.
334.	Lipsk	"	Rotfeld Majlech
335.	Lipsko n.Wisla	podrabin	Kronenblat Wolf
336.	Lisko	rabin	Horowic
337.	Lubartow	"	Gelblum W.L.
338.	Lubawa	"	Molcer S.A.
339.	Lubcza n/Niemnem	"	Wajs Icko
340.	Lubien	"	Piotrowski Izrael J.
341.	Lublin	"	Fromer L.H.rektor
342.	"	"	Kirszenbaum Lejzor
343.	"	"	Przysucha J.
344.	Lubomi	"	Oselka Pinkus
345.	Lubraniec	"	Klughaut S
347.	Ludwipol na Wolyniu	"	Chazan Akiwa
348.	Lutowisko	"	Weibergier Majer
349.	Lutotow	"	Szajer Arja Lejb
350.	Lwow,Sobieskiego 45	"	Alter Mojsze
351.	" Sykstusa	"	dr.Freund Lewi
352.	" Kol.rabinackie	"	Lejter Natan
353.	" " "	"	dr.Lewin Jecheskiel
354.	"	"	Wolfsberg Izrael Lejb
355.	Lachwa	"	Oszerowicz Chaim Zalman
356.	Lagow	"	Szwarcberg
357.	Lakiszyn	"	Bursztyn Alter
358.	Larowce	"	Kolecykier A.J.
359.	Larowcze wolynsk.	"	Rabin Aron
360.	Lajoud	"	Spira Lazar

361.	Lapy	rabin	Bryzman Jankiel Mejer
362.	Lask	"	Ejzenberg Lejb
363.	Laskarzew	"	Orner H.
364.	Laszczów	"	Glas Szmul
365.	Leçko k. st.sącz	"	Baumejl
366.	Łęczna	"	Berson J.J.
367.	"	"	Bromberg A.K.
368.	Leczyca	"	Auerbach L.
369.	Lomazy podlaskie	"	Grynberg I.B.
371.	Lomianski	"	Gibersztejn H.
372.	Łomża	"	Cynowicz Abram Josyj
373.	"	"	Szackier Mojsze
374.	Lopatow	"	Hemerling Chaim Lijb
375.	Lapuszno pow.kielec,	"	Ejbuszyc M.
376.	Loszyce	"	Ryzenberg A.
377.	Lowicz	"	Gajler H.
378.	Łódz, Gdańska 46	"	dr.Braude Markus
379.	"	"	Friedel S. członek Rabinatu
380.	"	podrabin	Rozenberg Josek Lejb członek Rabinatu
381.	"	rabin	Segal I.M.
382.	"	"	Król M.N.
383.	"	"	Hajner J.
384.	"	"	Dab M.
385.	"	"	Knops H.
386.	"	"	Harcsztark H.
387.	Luck	"	Eder, an Alter Ber
388.	"	"	Soroczkin Z.
389.	Lunin	"	Rotberg Tewel
390.	Luniniec	"	Zulaw Judel
391.	Lizki pow. Dzisnien	"	Niedzwiadowicz Lejzor
392.	Lyskow " Wolkow.	"	Sztejn J.
393.	Maciejow	"	Czerniak Sz.
394.	" (okr.bożn.)	"	Paluch H.B.
395.	Manguszew	"	Rubinsztejn Sz.
396.	Maków. maz.	"	Adelberg Icek
397.	"	"	Beer S.
398.	Malkinia	"	Frydman Chaim
399.	Malogoszcz kieleck.	"	Elwing Zyla Majlech
400.	Maloryta	"	Pinczuk Sz.
401.	Maniewicze Wolk	"	Gordyn Josef
402.	Marcikance p. Grodz.	"	Himelsztajn Aron
403.	Markuszow	"	Goldwaser Perec
404.	"	"	Wajcman Elkuna
405.	Mejszagola z. wilen.	"	Szwarc Abe
406.	Miadziol p. Postaw.	"	Kostrzewski Szmul
407.	Michaliszki	"	Elbin Hirsz
408.	Miechow p.Lubart.	"	Salomon Szachna
409.	"	"	Szejnfrucht Henoch
410.	Chmielnik n.B.	"	Pape Mojsze L.
411.	Miedzyrzec Podl.	"	Baczko Pejsach
412.	" p. Równe	"	Gardin Sz.
413.	" p. Siedlecki	"	Lew Majer
414.	" " "	"	Roski I. B.
415.	Mikaszewicze	"	Polak Berko
416.	Miory	"	Pianko B.
417.	Mir z. Nowogr.	"	Finkiel L.I. (Szkola Rabin.)
418.	" pow. Stolpce	"	Komaj A.H.
419.	Mizocz	"	Lerner Nuta
419a.	Mlawa	"	Segatowicz I.M.
420.	Mlynow z Wolynska	"	Gardin Judka

421.	Modliborzyce	rabin	Rubinsztajn W.
422.	Mogilnica	"	Oselko Chaim
423.	Mokobody	podrabin	Calka Szlana
424.	Molczadz p.Baran.	rabin	Bielski Herc
425.	Molodeczno	"	Abramowicz Mowsza
426.	Mordy star. Siedlec.	"	Kligsberg Jankiel Icek
427.	Muszyna	"	Beer N.
428.	Myszyniec	"	Anolik Lejb
429.	Nadarzyn	"	Natan Chil Lejb
430.	Nadwórna	"	Blank Mejer
431.	Naliboki pow.Stolpce	"	Gutman Lipa
432.	Narajow	"	Grosswachs Hersz Osjasz
433.	Narewka	"	Grajewski Ajzyk
434.	Niedzwiedzice	"	Kapitkowski Nichim
435.	Niemenczyn pow. Wilenski	"	Sznaper Gdalja
436.	Nieswiez	"	Rabinowicz A.
437.	Nowa Mysz	"	Wajncymer F.I.
438.	Nowa Wilejka	"	Landman Eljokum
439.	Nowe Miasto	"	Lipman H.
440.	Nowogrod p. Lanow	"	Hirszbajn Szmul
441.	Nowogrod	"	Majerowicz Majer
442.	Nowogrodek	"	Albowicz M.
443.	Nowojelnia	"	Rabinowicz Abram
444.	Nowo Swiencian, pow.Wilenski	"	Kamcki Eljasz
445.	Nywy Dwor	podrabin	Buszel Abram
446.	Nowy Dwor Bl.	podrabin	Judzyk Szepsel
447.	" "	rabin	Kamieniecki O.A.
448.	" " k.Modlina	"	Neufeld J.L.
449.	Nowy Korczyn	"	Sylman J.
450.	Nowy Sacz	podrabin	Blum Mozes
451.	"	rabin	Halbersztam Boruch Kanner
452.	"	"	Halbersztam Markus Wolf
453.	"	"	Halbersztam Salomon Juda
455.	"	"	Sapir M.J.
456.	"	"	Schindler Chaim
457.	"	podrabin	Fajtelbaum Wigdor
458.	Nur	rabin	Rozenblum Ela
459.	Odelsk	"	Aronowski Josef
460.	Olkieniki	"	WaltszauAbram Aron
461.	Olkusz	podrabin	Najman A.H.
462.	" okr. boz.	rabin	Rozensztrauch Mendel
463.	Olyka	rabin	Landau J.
464.	"	"	Rotenberg M.
465.	Opatow	"	Baumhart B.M.
466.	" Kiel.	"	Dytitwald L.M.
467.	"	"	Rokach Szulim
468.	Opoczno	"	Padawer I.M.
469.	Orany	"	Sojko Jankiel
470.	Orlean n/N.	"	Peczyner Majer
471.	Orla podl.	"	Halpern Ela Noech
472.	Osieck pow. Garwol.	"	Zysman Jakób R.
473.	Osiek	"	Goldberg Josek B.
474.	Osieciny	"	Nejman Abram Noech
475.	Ostroleka	"	Bursztyn S.
476.	Ostrowiec	"	Halsztuk Jakob
477.	Ostrowiec kl.	"	Halsztuk Ch.
478.	Ostrozec Wolynsk.	"	Brumm R. Jankiel
479.	Ostrow n/Hor.	"	Stard Wolf
480.	Ostrow " "	"	Guberman Froim

481.	Ostrow n/Hor.	rabin	Nelkenbaum Dawid Lejb
482.	Ostrow maz.	"	Zynger J.F.
483.	Osmiana	"	Szmuelson M.
484.	Otwock	"	Janowski Lejzor
485.	Otwock	"	Zejman Rubin
486.	Ozorkow	"	Ber D.
487.	Ozdzintycze	"	Niderberg A.B.
488.	Pabjanice	"	Alter Mendel
489.	Pacanow	"	Unger S.
490.	Pajeczno	"	Kantor Saul
491.	Parczew	"	Epsztein L.
492.	"	"	Pfeferkorn I.
493.	Parysow	"	Rabinowicz S.H.
494.	Piaseczno	"	Najfeld Hejnoch
495.	"	"	Szapiro K.
496.	Piaski lubelskie	"	Licht Icek Moszek
497.	Piaski wolkowisk.	"	Daniel Jeszua Benjamin
498.	Piatnica	"	Dajnowski T.
499.	Pylzno k. Jasla	"	Horowic
500.	Pinczew	"	Rapoport Sz.
501	Pinsk	"	Gindin Jakob Icko
502.	" - Karlin	"	Perlow Abram E.
503.	Pinsk	"	Walkin Aron
504.	Piotrkow Trybunalski	"	Glazer Jakob
505.	" "	"	Temkin Moszek
506.	" "	"	Wejs Mendel
507.	Plissa	podrabin	Lipszyc
508.	Plock	rabin	Bzura Abram Matys
509.	"	podrabin	Ejdelberg Mordko
510.	Plonsk	rabin	Borensztein J.
511.	Plotnica	"	Abelson Judel
512.	Pniewna pow.Korszyr.	"	Brudny Mowsza
513.	Poczajow z. wolynski	"	Urecki L.
514.	Podbrodzie	"	Perski Mowsza
515.	Pobrzeze	"	Kaplan Chaim
516.	Podbicie	"	Rotfeld Chil Mitel
517.	Podhajce	"	Ejzen Abraham
518.	Podkamien	"	Hermelin Lewi Izaak
519.	Podwoloczyska	"	Babad
520.	Poleniec	"	Rapoport Izrael Majer
521.	Poroz w	"	Harkawi Chaim Gerszon
522.	Poryck	"	Bojmejl Szmul
523.	Porzecze	"	Szalkowicz I.
524.	Postawy	"	Frijdkin L.
525.	Potok Zloty	"	Zejger Baruch
526.	Poznan	"	Sender D. Sz.
527.	Praszke	"	Zylberman Abram H.
528.	Probuzna	"	Horowic Abram Jakob
529.	Proszowice	"	Weks Abel
530.	Pruchnik	"	Marfeld Uszer L.
531.	Pruszkow	"	Wargulies S. Dawid
532.	Pruzana	"	Fajgenbaum Dawid
533.	Przesnysz	"	Perzanczewski Icek
534.	Przedborz	"	Grynbaum Nusyn Dawid
535.	Przeworsk	"	Thumim Ber
536.	Pszyrow	"	Szylewicz H.
537.	Przysucha	"	Fuks Majer Chaim
538.	Przytyk	"	Szapiro S.
539.	Pulawy	"	Naj M.
540.	Pultusk	"	Leweutal Sz.

541.	Pünsk	rabin	Lubowski Ch.M.
542.	Pizdry	"	Kantor Ch.H.
543.	Rapka	"	Rokach
544.	Raciaz	"	Berek Josek
545.	Raczki pow.august	"	Srebrowicz A.
546.	Radom	"	Kestenberg Chil
547.	"	"	Perka Szmul
548.	Radomsko	"	Rabinowicz Israel Pinkus
549.	Radomysl	"	Gelernter Rubin
550.	Radoszkowice	"	Czarny Chaim
551.	"	"	Rabinzon Zundel
552.	Radoszyce pow.kiel.	"	Finkler Izrael Josek
553.	Radun	"	Kaplan L.W.
554.	Radymno	"	Szpiro S.
555.	Radzanow pow.Mlaw.	"	Marwil Hersz
556.	Radziechow	"	Rubin Aszer S.
557.	Radziejow-kuj.	"	Platkowicz K.B.
558.	Radzilow	"	Gelbor Z.
559.	Radziwilow	"	Lerner Icek
560.	" wolynsk.	"	Roitenberg B.
561.	Radzyn podl.	"	Fain Chaim
562.	Rafalowka	"	Nudel Pinchos
563.	Rajgrod	"	Farber A.L.
564.	Rakow k/Olechonowicz	"	Halperin Izrael
565.	Rawa Mazow	"	Rapoport
566.	Rawa Ruska	"	Twerski Izaak Nuchim
567.	Rejowiec	"	Jar Hersz
568.	Rembertow	"	Bergoher Abram
569.	Rokitno	"	Szames Aron Josef
570.	Ropczyce	"	Liberman Izaak
571.	Rososz	"	Frydman Lejzor
572.	Ros pow.wolkowisk.	"	Grynberg Jankiel
573.	Rozwadow	"	Horowicz T.Z.Naftal
574.	"	podrabin	Korkier Josef
575.	Rozyszcze	rabin	Gutman A.B.
576.	"	"	Spektor M.
577.	Rowne	"	Majofes Symcha Hersz
578.	"	"	Rojtenberg Mojsze L.
579.	Roznaa n/W.	"	Platkiewicz S.J.
580.	Rozanka	"	Liss S.
581.	Rubiezewicze	"	Edelman L.
582.	Rudnik	"	Halbersztan Benjamin
583.	Rudziszki	"	Rozensztad Judel
584.	Rutka	"	Fiszman G.
585.	Rybik	"	dr.Kohlberg
586.	Ryki	"	Farfber Judka
587.	Rymanow	"	Horowitz Hirsz
588.	Rzeszow	"	Lewin Aron
589.	Sambor/st.	podrabin	Kalter Dawid
590.	Sambor malopolsk.	"	Mieses
591.	Sandomierz	"	Naj Mendel
592.	Sanok	"	Horowitz Tobjasz
593.	Sarnaki	"	Kac Abram Ber
594.	Sarny	"	Hechtman M.M.
595.	"	rabin	Kanda A.
596.	Sassow	"	Taub Szulim
597.	Sadowa Wisnia	"	Babad Lejb
598.	Sadowa Wisnia	"	Babad Samuel
599.	Sejny	"	Rogow Mordka
600.	Serok	"	Morgnsztern S.I.

601.	Sedziszow	rabin	Horowic Mendel
602.	"	"	Weisblum B.
603.	Siedlce	"	Gincberg Alter L.
604.	"	"	Mardyks S.
605.	Sielec	"	Wilamowski Josef
606.	Siemiatycze	"	Gersztejn Chaim
607.	Sieradz	"	Staszewski M.
608.	Sierpc	"	Goldszlak H.D.
609.	Szyniawka	"	Cukier Chaim
610.	Szyniawka	"	Starosta E.
611.	Skoczow k.Cieszyna	"	dr.Dojcz Mendel
612.	Skalat	"	Wolowicz Benjamin
613.	Skarzysko	"	Morgensztern Mordko
614.	Skawina	"	Freniek
616.	Skierniewice	"	Bender Sz.M.
617.	Skole	"	Rotenberg Izaak Mozes
618.	Slawatycze	"	Korpel Szaja Mendel
619.	Slawkow	"	Hepner Boruch G.
620.	Slomniki	"	Huberband Eljasz
621.	Slonim	"	Fajn Lejb
622.	"	"	Jogiel Szepsel
623.	Slupia Nowa z.Kiel.	"	Dydlwald Wolf Dawid
624.	Slupca	"	Lewi A.J.
625.	Smorgonie	"	Markus I.
626.	Smorgonie	"	Slodzinski Zelik
627.	Snow	"	Burganski Aron
628.	Sobolew	"	Himelsztein A.
629.	Sokocin	"	Glatsztajn Chaim
630.	Sokolow	"	Altbeim Abram
631.	Sokolow k.Rzeszowa	"	Halbersztam
632.	" Podlaski	"	Morgensztern Z.
633.	Sokoly	"	Rozenblum J.
634.	Sokolka	"	Szuster Icek
635.	Solec n/Wisla	"	Rajewski Izrael Aron
636.	Sopockinie	"	Rabinowicz Mendel
637.	Sosnowica k.Karcz	"	Kapota M.
638.	Sosnowiec	"	England Szaja
639.	"	"	Klikman Szyja
640.	"	"	Szwarc Mendel
641.	Stanislawow	"	dr.Fisz Ber
642.	"	"	Forsztejn Izrael Mendel
643.	"	"	Nebenzahl Alter
644.	Stary Sambor	"	Jeruchim
645.	Staszow	"	Horowitz
646.	Stawiski	"	Wasserman N.
647.	Stepan pow.Kost.	"	Horensztein Pinchos
648.	" wolynsk.	"	Wolynski Benojan
649.	Stoczek,pow.lukow.	"	Goldberg L.J.
650.	" k.Malkini	"	Kantor Szmul Lejb
651.	Stolin	"	Fijalkow O.
652.	Stolpce	"	Soroczkin J.
653.	Stopnica woj.kielec.	"	Szwarc Sz.
654.	Stryj	"	Joldes O.A.
655.	"	"	Lusthaus Saul
656.	Strykow	"	Fiszer Josek U.
657.	Strzegowo	"	Siemiatycki Jankiel
658.	Strzemieszyce	"	Dychtwald G.
659.	Strzyzow	"	Spiro M.
660.	Sucha	"	Halbersztand J.

661.	Suchedniow	rabin	Lejman Izrael Dawid
662.	Suchostwow	"	Rokach Lejbys
663.	Suchowola Janowo	"	Kowsowski Abram
664.	Suprasl	"	Rabinowicz Szlama
665.	Suwalki	"	Altman Mowsza
666.	"	"	Lifszyc D.
667.	Szadek	"	Rozencwajg Jakob
668.	Szarkowszczyzna	"	Rabinowicz J,
669.	Szczakowa	"	Seelenreich
670.	Szczawnica	"	Baumel
671.	Szczebrzeszyn	"	Blankman H.
672.	Szczekociny	"	Gincberg R.
673.	Szczerzec	"	Ejbeszyc Moszek
674.	"	"	Thumin Jakob
675.	Szczucin	"	Rabinowicz J.M.
676.	"	"	Soroczkin E. rabin gminy w Szczucinie z siedziba w Zoludk
677.	Szrensk	"	Lichtig L.
678.	Szumsk	"	Michel Josyf
679.	Szydlowiec	"	Rabinowicz H.
680.	Sniadowo	"	Chejn A.
681.	Swieciany	"	Luski Mojsze-Lejb
682.	Swir	"	Berkman Aron
683.	Swierzen pow.Stolpce	"	Alpert A.
684.	Swislocz	"	Miszkinski Jakob Ch.
685.	Tarczyn	"	Lefel D.
686.	Tarnobrzeg	"	Horowitz Chaim M.
687.	Tarnogrod	"	Tajcher Moszek
688.	Tarnopol	"	Babad E.Munisz
689.	"	"	Szalita Jakob
690.	Telechany p.Kosow p.	"	Glik J.
691.	Terespol	"	Szwarcberg A.B.
692.	Tluszcz	"	Brykman S.
693.	Tomaszow Maz.	"	Brot Samuel
694.	" lubelski	"	Rubin L.
695.	Toporow	"	Zyjberfarb Zelman Josyf
696.	Torun	"	Glycensztein I.
697.	Traby	"	Sachanow Abram
698.	Trebowla	"	Leiter Lejzor
699.	Troki	"	Pelcowicz L.H.
700.	Trzebinia	"	Weidenfeld Berysz
701.	Tuchon k.Torunia	"	Elawicz Sz.
702.	Tuczyn	"	Gotowa A.W.
703.	Turka n/Str.	"	Mischel L.
704.	Turzec	"	Markowicz Sz.
705.	Turek n/St.	"	Myszel L.
706.	"	"	Wegrow P.
707.	Turobin	"	Wajsbrodt M.M.
708.	Turzysk pow.Kowelski	"	Calalichen M.
709.	Tuszyn	"	Debinski Ch.B.
710.	Tuszmienica	"	Hageier Josef
711.	Uchanie	"	Lifszyc Zyndel
712.	Ujazd	"	Laznowski B.
713.	Ulanow Mlp.	"	Horowitz M.D.
714.	Uniejow	"	Lewethal R.W.
715.	Urzedow	"	Wajsztok Abram
716.	Ustrzyki Dolne	"	Rejman Abraham
717.	Wadowice	"	Seelenreich
718.	Warka	"	Frajlich B.
719.	Warkowicze k.Dubna	"	Szejdet Mejer Chaim
720.	Warszawa	"	Biderman I.M.

721.	Warszawa	rabin	Ejzencweig Jakob
722.	"	"	Flatto Szaja
723.	"	"	Gutszechter Chaim
724.	"	"	Kahane Szlama Dawid
725.	"	"	Kanal Icek Mojzesz
726.	"	"	Kohn M.M.
727.	"	"	Lewinzon J.
728.	"	"	Majmin E.
729.	"	"	Mendelson J.
730.	"	"	Merkier Szlama
731.	"	"	Michelson Hersz Ch.
732.	"	"	Nomberg D
733.	"	"	Pozner Ch.
734.	"	"	prof.Schorr Mijzesz
735.	"	"	Szapiro 1.
736.	"	"	Wajnberg A.
737.	"	"	Warszawiak M.
738.	" -Praga	"	Zemba Menachem
739.	" "	"	Zylbersztein Jakob
740.	Warta	"	Laskowski A.
741.	Wasiliszki	"	Ajzenband E
742.	Wasniow	"	Zajdner M.
743.	Wawer pow.warszaw.	"	Kestenberg Mendel
744.	Wasosz	"	Markus Benjamin
745.	Wawolnica	"	Frajberg Juda Lejb
746.	Woronow	"	Josielewski J.
747.	Wegrow woj.lubelsk.	"	Morgensztern M.J.
748.	"	"	Pesses N.
749.	Wiazyn	"	Klecki Josyf
750.	Wieliczka	"	Frenkiel P.L.
751.	Wielka Glusza	"	Blinicki M.L.
752.	Wielkie Oczy	"	Lumnia Jonas
753.	Wielun	"	Justman H.
754.	Wieruszow	"	Kligier M.L.
755.	Wierzbnik	"	Rabinowicz B.
756.	Wilejka	"	Waszyc Judel
757.	Wilno	"	Rubinsztein Izaak Posel na Sejm
758.	"	podrabin	Ejgies Henoch
759.	"	"	Fryd Sz.
760.	"	rabin	Grodzienski Chaim Ojzer
761.	"	"	Kahan Jakob
762.	"	"	Rozowski Jakob Josef
763.	"	"	Top Chaim
764.	Wisniewiec Wolynski	"	Ingerlicht M.N.
765.	Wisniew pow.Woloz.	"	Weinsztein Izaak
766.	Wislica	"	Szwarc Ch.
767.	Wizna pow. Lomza	"	Kagan Hirsz
768.	Wlodawa	"	Morgensztern Moszek Ber
769.	Wlodzimierz	"	Magit F.
770.	" wolynski	"	Pietruszka
771.	Wlodzimierzec	"	Szaliba Szlama
772.	Wloszczowa	podrabin	Blechsztein J.Ch.
773.	"	rabin	Finkler Ch.U.
774.	Wodzislaw	"	Rotenberg J.S.
775.	Wojnicz k.Tarnowa	"	Dachner S.
776.	Wolbron	"	Rokach Szulim
777.	Wolbromin	"	Zylberberg Szlama Lejzor
778.	Wolczyn	"	Szmosze N.
779.	Wolkowisk	podrabin	Brestowicki J.
780.	Wolomin	rabin	Bergazyn Wolf

781.	Wolpa pow.grodz.	rabin	Segat M.
782.	Wohyn	"	Sapisztejn M.B.
783.	Worniany	"	Sowa Michel
784.	Wsielub	"	Zakhajm M.
785.	Wysock pow.Stolin.	"	Abelson O.
786.	Wysokie pow.Krasn.	"	Herbst
787.	" Litewskie	"	Meyer M.Izrael
788.	" "	"	Zylberfarb Icchok
789.	" Mazowieckie	"	Perelman Aron
790.	Wyszogrod	"	Spiwak N.
791.	Wyszyny	"	Lederman H.
792.	Wyszogrodek	"	Hajman J.
793.	Zablotow	"	Hagier Abraham
794.	Zabludow	"	Mirski Jachenan
795.	Zabrzezie	"	Lewin Samuel
796.	Zakroczym	"	Srebrnik I
797.	Zakrzewek	"	Frydling I.Ch
798.	Zambrow	"	Regensberg B.M.
799.	Zamosc	"	Blum Mojsze Chaim
800.	Zamosc	"	Hurwic-Szternfeld Mordko
801.	Zareby Koscielne	"	Spiwak
802.	Zawiercie	"	Rabinowicz Sz.M.
803.	Zbaraz	"	Szperber Hilel
804.	Zborow	"	Klienhandler Salomon
805.	"	"	Szalita B.
806.	Zdolbunow	"	Lerner M.
807.	Zdunska Wola	"	Beer B.M.
808.	Zdzieciol pow.Nowogr.	"	Rajcer Izaak
809.	Zgierz	podrabin	Elberh I.
810.	"	rabin	Kohn Sz.L.
811.	Zloczew k.Sieradza	"	Lewkowicz I.D.
812.	Zwierzyniec	"	Grynberg Sz.
813.	Zwolen	"	Kirszenblum A.
814.	Zabinka	"	Gerszonowicz Abram Icek
815.	Zaklacin k.Zarnowa	"	Teitelbaum
816.	Zarki	"	Szwarcberg S.H.
817.	Zarnowiec	"	Hagierman S.J.
818.	Zarnow	"	Gotszalk Alter
819.	Zelechow	"	Przysucher S.D.
820.	Zmigrod k.Jasla	"	Halbers[illegible]ng S[illegible]
821.	Zolkiew	"	Lorberbaum Abraham
822.	Zolkiewka	"	Felhendler S.
823.	Zuprany z. wilenska	"	Blacher J.
824.	Zurawno	"	Bratspies Mozes
825.	Zychlin	"	Alter A.M.
826.	Zyrardow	"	Kalisz J.B.
827.	Zyrardow	"	Kremski K.M.

DRUKARNIA "OMNIUM"
WARSZAWA, ORLA 3.

DECLARATION OF THE UNITED COUNCIL FOR THE PROTECTION OF SHECHITA IN VILNA — 1936 *

(On behalf of the United Council for the Protection of *Shechita* in Vilna)

1. *Shechita* in the light of the Jewish *Halacha* is one of the most important foundations of the Jewish religion. Every restriction whatsoever in reference to *Shechita* therefore constitutes an attack on the Jewish religion and deprives 3½ million of the Jewish population of Poland of the possibility to eat meat.

2. The United Council hereby declares that every onslaught on Jewish *Shechita* is in flagrant violation of the basic Polish constitution which promises full freedom of religious observance to every citizen. It is unthinkable that any legislation could be passed by the Parliament to the above effect.

3. The Council declares that we — Jews the world over — are deeply convinced, and we have already publicly proven, that Jewish *Shechita* is the most humane of all ways of killing animals. The accusation against the alleged inhumanity of Jewish *Shechita* is baseless and serves only as camouflage for anti-Semitic intentions to remove from Jewish hands the marketing of meat and cattle which is one of the sources of livelihood of the Jews.

4. We hereby declare publicly: the demand to forbid Jewish *Shechita* is one of the basic accusations that anti-Semites the world over have used at all times to attack Judaism, in order to realize the policy of annihilation of the Jews. Also the instigation against Jewish *Shechita* here in Poland is based on the same anti-Semitic planning.

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* A translation of the Yiddish original published in 'Das Wort' in Vilna, issue Nr. 589.

5. The United Council hereby addresses itself to the Polish Government and Polish society to stand up against the onslaught on Jewish *Shechita* and to prevent a breach in the privileges for the Jews to observe the basic foundations of their religion which — as any other Jewish principles — are not allowed to be attacked.

Chaim Ozer Grodzenski
Dr. Yakov Vigodsky

DECLARATION OF THE LEADING RABBINIC AUTHORITIES IN POLAND — 1937 *

In reference to electro-narcosis before *Shechita,* we were already asked about it in connection with the edict against *Shechita* without anaesthesia in Germany. We dealt with this subject, together with many of the great rabbis and leaders of rabbinical schools. We decided, based on the sources in the Tora, that this method raises problems related to severe prohibitions in the Tora (like *"Nevelot* and *Trefot"*), and no permission could be found for it. Last year, more than 800 Polish rabbis wrote and signed a document declaring that there is no permission possible for various reasons.

Now we heard that in many countries and in areas of the North they want to start this evil again and to introduce electro-narcosis before *Shechita.* We therefore consider it our responsibility to publicize wherever Jews are dispersed that electro-

* Translated from Hebrew.

narcosis before *Shechita* is forbidden in accordance with the precepts of the Tora, as mentioned above.

Since time immemorial our forefathers and great leaders were willing to sacrifice their lives for *Shechita* and for the abstention from forbidden foods, which is one of the foundations of the Tora and the sanctification of the Jewish People. It is, therefore, the obligation of the revered rabbis and the elite of the people everywhere to stand on guard and prevent the violation of severe prohibitions, and to continue the purity and the sanctity of the people.

The Guardian of Israel shall watch over his People and his Tora and protect us from evil edicts, and he shall speedily come to our help and assistance. May he reverse the dispersion of his People as prayed for by the writers and signatories of this (document) in the month of Iyar 5697 *('Ezratcha')*.

Chaim Ozer Grodzenski, Vilna; Chanoch Henech Eigus, Vilna; Shimon Yehuda Hakohen Shkop, Horodna; Avraham Zvi Hirsch Kamai, Chief Rabbi and Head of the School in Mir; Baruch Dov Ber Liebowitz, Rav of Kaminetz; Yitzchak Zeev, son of the great Gaon and Chasid of all the Diaspora, our Teacher Chaim Halevi Soloveitchik, of blessed memory, Chief Rabbi in Brisk;

Members of the Rabbinical Council in Warsaw:
Avraham Weinberg, Chaim Yehoshua Gutschachter, Chaim Posner, Yakov Silberstein, Yakov Meir Biederman, Yitzchok Meir Kanal, Menachem Zemba, Noach Ragosnitzky, Shlomo David Kahane.

13-טער יאָרג

Opłata pocztowa uiszczona ryczałtem

DOS WORT

דאָס וואָרט

אַרטאָדאָקסישע וואָכנבלאַט.

ב"ה. ווילנא, פרייטאָג, פּ' במדבר, ד' סיון תרצ"ז. 14 majá 1937

גלוי דעת תורה

הנה ע"ד רבר ההיכום בזרם עלעקטרי לפני השחיטה נשאלנו מכבר ורגל נזירת איסור השחיטה בלי היכום מקודם באשכנז, וכבר דנינו בזה ביחד עם כמה מגדולי הרבנים וראשי הישיבות וההלטנו על פי דעת תורה שיש בזה ספקות איסורי תורה חמורים של נבלות וטרפות ואין לזה שום היתר. וגם כבר כתבו וחתמו אשתקד יותר משמונה מאות רבנים ממדינתנו פולין שאין שום היתר בדבר מכמה טעמים.

עתה שמענו כי מאיזה מדינות ומירכזי צפון רוצים לפתוח הרעה חלילה ולהנהיג את ההיכום לפני השחיטה. הננו מוצאים איפוא את עצמנו מחויבים ברבר לפרסם בכל תפוצות ישראל כי ההיכום בזרם עלעקטרי לפני השחיטה הוא אסור על פי דין תורה כאמור.

והנה מאז ומעולם מסרו אבותינו ורבותינו את נפשם מדור דור על השחיטה ועל הזהירות מאכלות אסורות שזהו מיסודות התורה וקדושת עם ישראל, וההחובה על הרבנים הנכבדים ויחידי סגולה בכל מקום שהם לעמוד בפרץ למנוע מאיסורים חמורים ולהמשיך טהרת וקדושת ישראל.

ושומר ישראל ישמור את עמו ותורתו, ויבטל מעלינו גזירות קשות ורעות, ימהר לרוחתנו וישועתנו וישיב שבות עמו כמשאלות הכו"ח בחודש אייר "עורתי" לפ"ק.

חיים עוזר גראָדזענסקי, חילנא חנוך העניך איינגעש, חילנא

שמעון יהודא הכהן שקאפ, רבדנא אברהם צבי הירש קאמאי, אב"ד ור"מ פיר

ברוך דובער לייבאוויץ, ר"מ בקאפּיטשניץ יצחק זאב בהגאון החסיד רשכובה"ג מרן ר' חיים

אלחנן בונם וסרמן, ר"מ בבראנסק הלוי יצחק"ל סאלאוויציק, אבד"ק בריסק

חברי ועד הרבנים לעירת ורשא.

אברהם וויינבערג	יצחק מאיר קאנאל
חיים יהושע גוטשעכטער	מנחם זעמבא
חיים פּוזנער	נח ראגאזניצקי
יעקב זילבערשטיין	שלמה דוד בהגא
יעקב מאיר בידרמאן	

LETTER OF CHIEF RABBI HERZOG — 1942

Isaac Herzog, M.A., D. Litt.

Chief Rabbi of the Holy Land

Jerusalem

July 26, 1942

To Mr. M.D. Lewenstein, Tel-Aviv

I have been asked by the Very Reverend, the Chief Rabbi of Palestine, to confirm to you once again that he has in no way given his accord to permit *Shechita* after anaesthesia with electricity, as they wish to introduce it in Switzerland. Likewise, he does not at all consider the possibility of giving permission therefor. You are at liberty to inform all those interested hereof.

Truly yours,
A. Goldmann
Private Secretary

DECLARATION OF UNION OF ORTHODOX RABBIS OF THE UNITED STATES AND CANADA — 1943 *

August 2, 1943

As some doubts have arisen with us whether the letter confirming our telegram which you had asked for was sent properly, we hereby repeat the confirmation of the contents of our telegram concerning the prohibition against the use of anaesthesia by electricity on an animal before *Shechita,* and that there is no permission for this for various reasons. This decision was made, after thorough consultation and detailed examination, by the distinguished gathering of the greatest authorities of our country, the heads of the Rabbinical Assembly:

Rabbis J. Rosenberg, A. Silver, Ch. Bloch, J. Seltzer, J. Kahnwitz, J. Soloweizick, J. Karlinski, A. Kotler, M. Schatzkes, (formerly Ab-Beth-Din in Lomza, Poland) and several other outstanding rabbis.

* Letter to Chief Rabbi Tubia Lewenstein in Switzerland.

DECLARATION OF THE CHIEF RABBI OF PALESTINE — 1944

ISAAC HERZOG, M. A., D. Litt.
CHIEF RABBI OF THE HOLY LAND
JERUSALEM

יצחק אייזיק הלוי הרצוג
הרב הראשי לארץ ישראל
הממונה ירושלים ת"ו

7th August 1944

SOLEMN DECLERATION ON SHECHITAH

I The Jewish mode of slaughter, Shechitah, is an essential part of the Jewish religion. Jews are strictly forbidden to eat of meat killed by any other method. It has been universally observed by Jews since time immemorial all over the world and the rules governing this vitally important religious ordinance are believed by us to have been handed down by Moses to whom they were divinely communicated. It is to these rules that the written divine Law refers (Deuteronomy XII, 20-24), in permitting the consumption of meat not-offered as a sacrifice. "If the place which the Lord thy G-d shall choose to put his name there be too far from thee, then thou shalt kill of thy herd and thy flock as I have commanded thee and thou shalt eat within thy gates after all the desire of thy soul". (Talmud, tractate, Hullin 28a).

II All stunning prior to Shechitah would render the meat forbidden for Jewish consumption, owing to the doubt that it may have caused the death of the animal before the knife was applied or a lesion however slight, in the brain or some other internal organ

Isaac Herzog
Chief Rabbi of the Holy Land

THE UNION OF ORTHODOX RABBIS OF THE UNITED STATES AND CANADA

DECLARATION ON SHECHITA

אגודת הרבנים דארצות הברית וקנדה
THE UNION OF ORTHODOX RABBIS
OF THE UNITED STATES AND CANADA
132 NASSAU STREET
(SUITE 1221)
NEW YORK 7, N. Y.

RECTOR 2-2376
2377

December 20, 1944

DECLARATION ON SHEHITAH

1) Shehitah, the religiously ordained method of slaughtering animals for food, is an ordinance prescribed by Jewish religion. It is based upon biblical law and regulated by the religious codes in its minutest details. Any deviation from the prescribed regulations makes the meat ritually unfit for consumption by Jews.

2) By these regulations, animals to be slaughtered for food must, prior to their slaughter, be free of stated lesions and imperfections in specific organs.

3) Jewish religious law does not allow preliminary stunning, or the rendering of the animal insensible, by any method.

4) The enforcement of a regulation requiring stunning preliminary to slaughter is tantamount to a prohibition of the practice of Shehitah.

Union of Orthodox Rabbis of U.S. and Canada

Rabbi J. Rosenberg — Rabbi El. Silver — Rabbi B. L. Levinthal

Presidium

Rabbi L. Seltzer
Executive Director

DECLARATION OF CHIEF RABBI J.H. HERTZ —

LONDON 1945

TELEPHONE:
AVENUE 5377.
TELEGRAMS:
CHIRABINAT, MAIDA, LONDON.
CABLEGRAMS:
CHIRABINAT, LONDON.

OFFICE OF THE CHIEF RABBI

4, CREECHURCH PLACE, ALDGATE.

LONDON, E.C.3. 27th March, 1945705

Declaration on the Jewish method of slaughtering animals for food.

Shechita, the Jewish method of slaughtering animals for food, is prescribed by the Divine Law. It has been universally observed by the Jews throughout the ages; and is to this day religiously observed by the overwhelming majority of the Jews of the world. The rules and rites governing this sacred ordinance have come down to us from time immemorial, and, amongst other purposes, they ensure a swift and painless death to the animal. Any other method than the prescribed Shechita (such as, stunning previous to the act of slaughter) renders the meat ritually unfit for Jewish consumption. Civil regulations that would interfere with this hallowed practice would, therefore, inflict cruel hardship upon law-abiding citizens; and, by violating their freedom of conscience, constitute a grievous religious persecution

J. H. Hertz

Chief Rabbi of the United
Hebrew Congregations of the British Empire

DECISION OF THE CHIEF RABBINATE OF ISRAEL — 1953

2nd of Kislev 5714
November 9, 1953

DECISION

The Augmented Council of the Chief Rabbinate of Israel, in its session on the 2nd day of Kislev 5714, heard with great interest the words of the Chief Rabbi of the British Empire and also the words of Mr. Elsley Zeitlin, Chairman of the Shechita Commission of the Board of Deputies of all Jewish communities in Great Britain. After their reading to us important documents written by great scholars of modern times in reference to electro-narcosis, and after our thorough evaluation of the same, we came to a unanimous and clear decision that because of serious halachic *problems, there can be no basis for permitting electro-narcosis of an animal before* Shechita.

Our traditional Shechita, *as observed by us throughout all the generations, is a supreme order by the Almighty, as given to Moshe, our Master, and laid down in our Holy Scriptures, the ways of which are merciful and is the appropriate method of killing the animal also from the ethical as well as the humane viewpoint.*

Signatories:

Yitzchak Isaac Halevi Herzog
Zvi Pessach Frank
Isser Yehuda Unterman
Reuven Katz
Yakov Moshe Toledano
Chiskia Shabbatai Yausha
Ovadiah Hadaya
Meshulam Roth
Shalom M. Azulai
Yakov Edess
Shaul Yisraeli
Yehoshua Kaniel
Shemuel Halevi Brod

DECLARATION BY THE JEWISH ECCLESIASTICAL AUTHORITIES OF THE BRITISH COMMONWEALTH

Nisan 5716
March 1955

Shechita, *the Jewish method of slaying animals for food, is prescribed by the Divine Law. It has been universally observed by the Jews throughout the ages and is to this day religiously observed by the overwhelming majority of the Jews of the world. The rules and rites governing this sacred ordinance have come down to us from time immemorial, and, amongst other purposes, they ensure a swift and painless death to the animal. Any other method than the prescribed* Shechita *(such as, stunning previous to the act of slaughter) renders the meat ritually unfit for Jewish consumption. Civil regulations that would interfere with this hallowed practice would, therefore, inflict severe hardship upon law-abiding citizens, who would be prevented from partaking of meat except under conditions which would violate their religious conscience.*

Israel Brodie,
Chief Rabbi of the United Hebrew Congregations of the British Commonwealth.

Solomon Gaon,
Haham,
Sephardi Congregations in the British Commonwealth.

DECLARATION BY THE JEWISH ECCLESIASTICAL AUTHORITIES OF GT. BRITAIN

11th November 1968
20th Cheshvan 5729

THE Jewish method of slaughtering animals for food, known by the Hebrew word "Shechita", is Divinely ordained by the word of God as found in the Holy Scriptures. Since time immemorial, Jewish communities throughout the world have observed this essential practice of our religion.

SHECHITA is carried out by men who have undergone several years of religious training and study who scrupulously apply the rules and rites governing this sacred ordinance, thus ensuring the swift and painless death of the animal.

ANY other method than Shechita (such as stunning previous to the act of slaughter) renders the meat ritually unfit for Jewish consumption. Any interference with this hallowed practice would, therefore, inflict severe hardship upon law-abiding citizens, who would be prevented from partaking of meat except under conditions which would violate their religious conscience.

IMMANUEL JAKOBOVITS,
Chief Rabbi of the United Hebrew Congregations of the British Commonwealth.

SOLOMON GAON,
Haham, Sephardi Congregations in the British Commonwealth.

DECLARATION OF THE CONFERENCE OF EUROPEAN RABBIS — 1974

ב"ה

ועידת רבני אירופא

CONFERENCE OF EUROPEAN RABBIS

PRESIDENT:
EMERITUS CHIEF RABBI, SIR ISRAEL BRODIE

STANDING COMMITTEE:—
Chairman:
Emeritus Chief Rabbi,
SIR ISRAEL BRODIE
Chief Rabbi D. ASSEO
Chief Rabbi Dr. I. COHEN
Grand Rabbin R. DREYFUS
Dayan M. FISHER
Haham, Dr. S. GAON
Rabbiner H. J. GRUNEWALD
Dayan Dr. I. GRUNFELD
Chief Rabbi Dr. I. JAKOBOVITS
Grand Rabbin J. KAPLAN
Dayan Dr. M. S. LEW
Chief Rabbi Dr. M. ROSEN
Grand Rabbin Dr. A. SAFRAN
Grand Rabbin H. SCHILLI
Chief Rabbi A. SCHUSTER
Chief Rabbi Dr. E. TOAFF

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LONDON, WC1H 9HN

Telephone:
01-387 1066 (4 lines)
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CHIRABINAT, LONDON WC1

March 1974

DECLARATION BY THE

CONFERENCE OF EUROPEAN RABBIS

The Jewish method of slaughtering animals for food, known by the Hebrew word "Shechita", is divinely ordained in the Holy Scriptures. Since time immemorial, Jewish communities throughout the world have observed this essential practice of our religion.

Shechita is carried out by highly-skilled men who have undergone several years of religious training and study, and who scrupulously apply the rules and rites governing this sacred ordinance. This humane method ensures the swift and painless death of the animal, as confirmed by overwhelming and authoritative scientific evidence. This is, of course, in harmony with basic Jewish teaching which strictly forbids any form cruelty to animals.

Any method other than Shechita (including any means of stunning before the act of slaughter) renders the meat ritually unfit for Jewish consumption.

The Conference of European Rabbis, representing communities counting well over one million Jews, is confident that there will be no interference with this hallowed institution. Such interference would not only be a denial of human rights and religious freedom but would also inflict severe hardship by debarring Jews from the consumption of meat except under conditions which would violate their religious conscience.

III

science

PHYSIOLOGICAL AND GENERAL MEDICAL ASPECTS OF SHECHITA

by

Dr. I.M. Levinger

Department of Life Sciences, Bar-Ilan University, Ramat-Gan

with a preface

by

Prof. Dr. H. Spörri

Head of the Institute of Veterinary Physiology
University of Zürich

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PREFACE

As splendid and wonderful as Nature appears to be, it can also be hard, cruel and pitiless. The preservation of the multitudinous form of animal and plant life, as well as their further differentiation and development is, due to limitations of space, only made possible by the reality of death through old age, sickness, hunger, thirst or destruction by other living things. Plants provide food for many animals and these, in turn, provide food for other animals and man. A world in which all existing animal-forms could live together in harmony is a vain wish. How could a tiger, with his ripping, dagger-like teeth, or a poisonous snake, or a squid with his grasping tentacles otherwise nourish themselves?

As long as mankind is not permitted to survive without involving the death of other living things, we are at least obliged to kill meat-producing animals in such a way that they suffer the least amount of pain and fear. In an attempt to meet this ethical premise, or on the basis of judgments which have usually not been critically prepared, the slaughter of cattle according to Jewish ritual has been forbidden in certain countries.

In 1958, the Swiss-Israelite Association of Communities requested that the Veterinary-Physiology Institute of Zurich University study the question of the compatibility of kosher slaughter and present animal-protection laws. In experiments which lasted several years, and in which Dr. I.M. Levinger participated, this problem was investigated. The results were published in his inaugural dissertation of 1961 entitled "Untersuchungen zum Schächtproblem". Dr. Levinger then continued these studies in Israel, the results of which, together with earlier Zurich experiments, provide the contents of the book at hand, "Medical Aspects of Shechita".

Many judgments have previously been drawn regarding ritual slaughter, in which contradictory opinions have often appeared and re-appeared. The monograph at hand is, in my opinion, a worthy contribution toward the clarification of this often-contested problem.

H. Spörri
(Head of the Institute of Veterinary Physiology University of Zürich)

FOREWORD

The problem of humane slaughtering of animals for food by various methods currently used in slaughterhouses, including also the Jewish method known as Shechita has been discussed in many countries for more than a hundred years. It has several aspects: physiology, psychology, hygiene, and technology.

During the last fifty years, attempts were made to study these questions systematically. Most of the research concentrated on the physiological aspect. The present investigation covers both a critical review of the available information and additional research into physiological or Shechita problems hitherto unresolved. The latter was begun in the Veterinaer-Physiologische Institut of the University of Zürich, under the direction of Prof. Dr. H. Spörri. Results were summarized in a booklet named "Untersuchungen zum Schaechtproblem", which was accepted by the University of Zürich as a thesis for a doctorate in Veterinary Medicine in 1961. Further research was carried out at the Department of Life Sciences of the Bar Ilan University in Israel. It is felt that the results may provide an answer to the major problems.

I extend my sincere thanks to Dr. S. Angel for his very important help in the field of Histology, and to Rabbi E. Greenfield, Dr. J. Kedem, and Prof. Dr. K. Stern for their assistance in editing and summarizing. I am obliged to Prof. Spörri, The Schweizerische Israelitische Gemeindebund, Prof. H. Dukes, and Prof. Dr. L. L. Nangeroni of Corneill University and the "Research Institute for Post-War Problems of Religious Jewry" for giving permission to print unpublished results of their research from their archives. At this point I want to express my thanks to PANCOMEX LTD for preparing a set of photographs on shechita, and to all others who helped me in preparing this work.

I.M.L.

Chapter I

HUMANE SLAUGHTER

The terms *humane* and *slaughter* represent a conflict. Slaughter cannot be humane by any method, for slaughter is cruel. And yet, the slaughter of animals being a necessity, it must be performed as humanely as possible.

Cruelty to animals in Jewish literature

Is Jewish law concerned about cruelty to animals? If so, what regulations are there about the subject?

Jewish law deals with the question of cruelty to animals as attested by Scripture: "If you meet your enemy's ox or his ass going astray, you shall return it to him." "If you see the ass of him that hates you lying under his burden... you must surely help him!" (Exodus 23, 4—5). These are only two of the numerous examples in Jewish law that express the attitude of Jewish law towards animals. Many more can be cited (16, 66, 106, 161).

Jewish law forbids hunting (86), but permits slaughter under strict regulations (73a) According to various Jewish sources, it would be preferable to do away with the consumption of meat altogether (7). However, since eating meat is generally considered a human necessity, Jewish law permits slaughter provided it is performed under strict regulations (1, 156).

According to some authorities the regulations of *shechita* — the Jewish method of slaughtering animals for food — are based on the principle of preventing cruelty to animals (23). The knife to be used must be very sharp and very smooth. It must be tested on a man's skin and fingernails, on the assumption that whatever a man does not feel an animal will not feel either (73c).

The care and protection of animals is an important principle in Jewish law, as may be seen, for example, from the regulation that one must always feed one's animals before having one's own meal (145a).

Jewish law permits using one's animal for the benefit of human beings (73j). Thus, utilizing animals for work and the use of their eggs and milk, slaughtering for food, and even using them for experimentation, is not forbidden (47). But all procedures must be done under conditions of maximal respect for the animal. For example, an animal should not be slaughtered in the sight of another living animal (73f), the casting of animals should be done as carefully as possible (73g), and an animal should not be touched after *shechita* as long as it shows signs of life or even reflex movements (73e).

General motives of shechita

Jewish law permits the slaughter of animals in accordance with strict regulations and restrictions which are based on a number of principles:

1) *Life is sacred*

The preservation and protection of human life is a cardinal point in Jewish law (145b). Whenever a man's life is in danger, all commandments are set aside. There are only three exceptions to this principle — idolatry, murder, and adultery (145b). Even the taking of an animals' life carries a great responsibility (70); it may be done only by a highly qualified person (53), the moral qualifications of the *Shochet* — the slaughterer — must be of a high level, and *shechita* must be performed by man and not by machine (73b). If the man does it incorrectly, he is liable to damages.

2) *Psychology of the slaughterer*

As a rule those who are engaged in killing, even of animals, have little respect for life. The Talmud states: "The best of the butchers are the associates of *Amalek*" (145c). In order to counteract this attitude, the *shochet* is required to have the highest moral qualifications (53).

3) *Quality of meat*

Inasmuch as slaughter is permitted only for the purpose of providing meat for human consumption, that meat must be of the highest quality. And since it is a fact that blood is the first element destroyed in meat, the method of slaughter must be such that most of the blood is removed from the animal. It is unquestionable that to date *shechita* is one of the best methods for bleeding the animal. Details of this are discussed in Chapter XIII.

Shechita and cruelty to animals

For the past one hundred years there has been controversy about *shechita* and cruelty to animals. Some argue that bleeding a conscious animal is cruelty to that animal (i.a. 112). However, most physiologists are of the opposite opinion (11, 25, 34, 36, 62, 131, 143). The SPCA — Society for the Prevention of Cruelty to Animals — and the Tierschutzverein argued (i.a. 148, 149, 150) against the opinion of these physiologists, and succeeded in passing legislation against *shechita* in some European countries. These laws were repealed later. A detailed report on the legal problem has been published (16, 105, 130) and will not be discussed here.

The following treatise presents a critical review of the problems of *shechita* and cruelty to animals. Some physiological investigations were necessary to clarify unsolved problems. Generally accepted physiological methods were applied and therefore are not described in detail. The casting problem was raised by some (8, 128), and that question will therefore be dealt with in chapter III.

Although the main points of the present work are of a purely physiological nature, aspects of meat hygiene and animal psychology will also be discussed.

Chapter II

ANIMALS PERMITTED BY JEWISH LAW FOR HUMAN CONSUMPTION

Consumption of meat is restricted by Jewish Law. Only the meat of certain animals in good health may be eaten. The meat must be prepared in accordance with a stated system including *shechita* — the ritual slaughtering method—; *bedika* — the method of inspection —; and *nikkur* — purging, i.e. the removing of blood, various blood vessels, and *chelev,* certain pieces of fat. Only meat thus processed may be used. And even then a special system of preparation in the kitchen is required.

Species of animals that may be used

The species of animals permitted by Jewish Law include mammals, birds, fish, and some insects (73i, 113a):

Mammals

Of the mammalian class only some artiodactyla (split-hoofed animals) may be eaten. The order of the artiodactyla is divided into three suborders (115): the nonruminantia, including the pig and related species; the tylopoda, including the camel and related species; and the ruminantia. Only the last are regarded as fit for consumption. In practice there are two families, the bovides and cervides, that are eaten by Jews. Inasmuch as the animal must be absolutely healthy, and since hunting would almost certainly injure a wild animal, only domestic animals such as cattle, sheep, and goats are used for consumption in most Jewish communities.

Birds

Some species of birds may be eaten. The *Tora* specifies only those species that may not be eaten, though it does not exactly define them. The *Mishna* (119) presents some morphologic and

physiologic definitions, but rabbinical authorities have decided that for practical reasons only those species may be eaten for which tradition exists.

In other publications an attempt was made to define all permitted species of birds (95). In the present work, however, it will suffice to mention that the permitted species of birds include pheasants (including chickens), pigeons, ducks, and some song birds. For most other species no tradition exists, and therefore they may not be eaten.

Fish

Only those fish that have fins and scales that are visible to the naked eye are permitted (141). Practically, most bone fish are permitted for consumption.

Insects

Of animals without backbones only a few species of grasshoppers are permitted and only few Jews know the exact definitions and signs by which to recognize these species (72, 146).

Shechita

Shechita is the method by which animals and birds are slaughtered in accordance with Jewish ritual (145f). *Shechita* is not necessary for fish or grasshopers (145f). *Shechita* must be performed on a living healthy animal (104, 121, 155). Whenever, in case of necessity, *shechita* is performed on a sick animal, the *shochet* must make sure that the animal was fully alive immediately before *shechita* (145f). No method of stunning, therefore, can be applied prior to *shechita* (121, 155).

Shechita is the process of cutting through the soft parts of the neck carried out with a specially prepared knife and by observing five cardinal points: (145f)

1) *Shehiya* שהייה:
There must not be the least break in the process of *shechita.*

2) *Derassa* דרסה:
The process of slaughtering must be done by moving the knife

back and/or forth and not through downward pressure. The knife, therefore, must be long enough to allow slaughtering without too much pressure. Moreover, the animal must be in such a position that the knife will cut downward and not upward, since an upward cutting process would put undue pressure on the knife.

3) *Chalada* חלדה :

The *shechita* knife must be uncovered during the entire process of *shechita*. For this reason the knife used for *shechita* has a long and broad blade without a thin sharp end front or back (See Fig. 1).

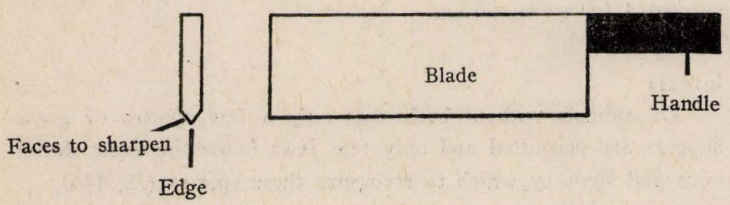


Fig. 1. *Shechita knife.*
On the right the knife is shown and on the left the angles of the blade are presented.

4) *Hagrama* הגרמה :

The cut must be performed on the throat, between the level of the larynx, and the lower part of the trachea and oesophagus, normally located in the thoracic cavity. The cut for a bird should be made not lower than at the upper end of the crop.

5) *Ikkur* עיקור :

The trachea and oesophagus must be cut through and not ripped out. The knife, therefore, must be very sharp and very smooth. The least notch in the blade will cause tearing. For this reason the knife is checked for smoothness and sharpness before each *shechita*.

Following *shechita* the animal must bleed undisturbed. The backbone and spinal cord must remain intact to allow better bleeding (145e).

Manner of shechita

Immediately after casting the animal, the *shochet* makes one or two long cuts through the soft parts of the throat, the trachea, and the oesophagus, as well as through the carotid arteries, jugular veins, the sympathetic and vagal nerves until they are severed (See Fig. 2). The wound splits open and the stream of blood flows undisturbed.

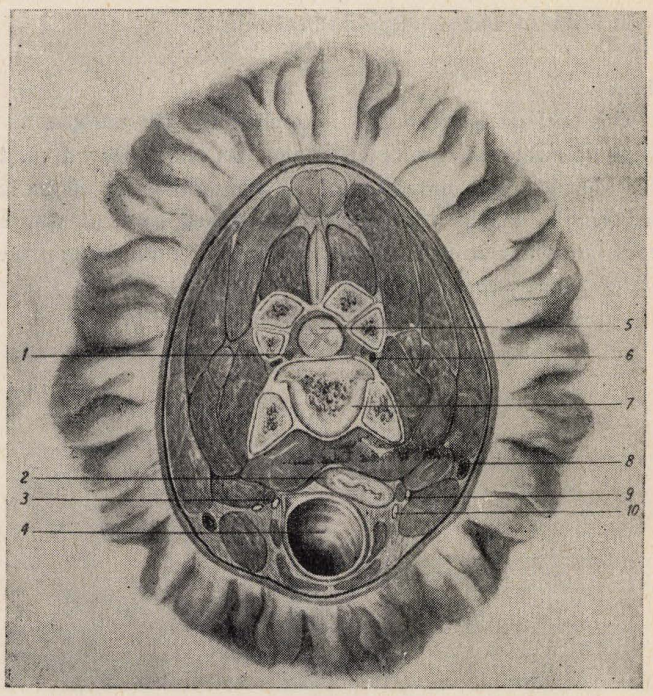


Fig. 2. *A cross section through the neck at the region where shechita is performed (Levinger 91).*
1. vertebral artery, 2. oesophagus, 3. sympathetic chain, 4. trachea 5. spinal cord, 6. vertebral vein, 7. vertebra, 8. jugular vein, 9. carotid artery, 10. vagal nerve.

Bedika (87, 98)

After *shechita* and after the animal has come to rest, the *shochet* makes an inspection of the meat. Two inspections are performed. In the first inspection certain anatomic changes may be regarded as caused by illness and the animal is considered *trefa,* i.e. unfit for Jewish consumption (113b). The second inspection — which, incidentally, may be performed by a veterinarian or a meat inspector (153) — is to ensure that the meat is fit for human consumption. In case the meat is found unfit for human consumption, even though it may not be *trefa,* it is forbidden because of *Sakanat Nefashot* — danger to health (73h). The first inspection is based upon unchangeable ritual regulations, while the second is based upon modern medical science.

Nikkur

The purging process (93) is applied for the purpose of removing elements of the meat that are forbidden. Blood residues of all animals are removed by salting and cutting out of the main blood vessels. In all mammals the sciatic and some of the small nerves must be removed, while in sheep and cattle certain pieces of tallow must also be removed.

Chapter III

CASTING OF THE ANIMAL

Inasmuch as *shechita* is performed on the conscious animal, it is necessary to immobilize the animal prior to slaughter. Some (8, 17) ascribe inhumanity to *shechita* because of the casting process involved. Rohner (128) wrote: "Even the preparations of the animal before *shechita* is a sufficient reason to forbid *shechita.*" In order to examine this problem, the various methods of casting animals for *shechita* will be discussed in this chapter. There are no regulations, in the Jewish law, by which system casting has to be carried out, except that it should be done without causing any cruelty to the animal.

Shechita on the prostrate animal

In olden times the animal was thrown down by tying its feet. In order to avoid hurting the animal it was suggested to tie only two feet. Jewish law permits tying as many as three feet, but not all four, when in standing position (73f).

With the passage of time new procedures were developed for laying the animal down (99). One of these involved tying a rope to the horns of the animal, holding it along the back by three turns around its body, the first being in the neck region, the second behind the forelegs, and the third in front of the hind legs (See Fig. 3). By pulling the end of the rope the animal is made to lie down voluntarily after which all four legs are tied and the animal is ready for *shechita.*

Another modification of the casting system is effected by connecting ropes from all four legs to a set of pulleys. When the pulleys are set in motion the animal is suspended with all four legs in the air. The purpose of this system is to make casting so

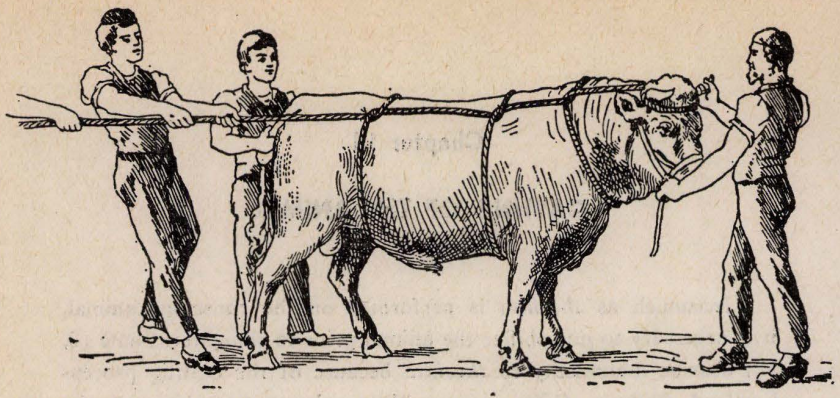


Fig. 3. *Laying down an animal according to the method described by Hess (59).*

quick that by the time the animal turns over, its legs are high enough to prevent a possible blow to the back while the animal is turning. In most cases, however, this process is not fast enough, and therefore no longer in use.

Shechita on the reclining animal after casting with special machines

The rotating pen

In 1927 the "Weinberg Casting Pen" was developed (55, 63). By using this apparatus both the throwing and tying the animal's legs are eliminated. The apparatus consists of a pen whose side walls and roof may be adjusted to the size of the animal (See Fig. 4). After adjusting the pen it is turned 180°. The animal now is with its back down, its legs up and it is ready for *shechita*. The system is so fast that the entire process including *shechita* can be performed in 30 seconds (55).

In some countries the apparatus was somewhat improved by changing the procedure of adjusting the walls and roof of the pen to the size of the animal, as well as by applying electric or hydraulic systems instead of manpower. The rotating pen is available in German, French, or New Zealand models.

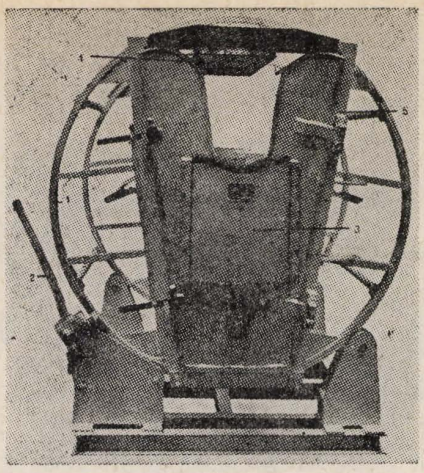


Fig. 4. *The Weinberg casting pen (Levinger 91).*
1. rotating wheel, 2. handle, 3. front door, 4. roof, 5, side walls.

The knocking pen

The knocking pen is a modification of the shooting pen which is in use in many non-Jewish abattoirs. Using this modification the pen goes down in two stages. During stage one, the pen opens on one side and the animal slips down until its feet are outside the pen, which is too narrow to let the animal slip out of it. At that stage the animal is suspended on a line. During the second stage the opening is widened and the animal gently slips out of the pen. While the animal is slipping, the line is pulled and the hind legs of the animal are pulled up. At that stage the *shechita* is performed.

Using this process, *shechita* is performed within 15 to 20 seconds after the animal reaches the pen (101), (see Fig. 5). In some places this pen has been modified to smoothen the slipping out of the animal, and then *shechita* may be performed even in a shorter period (101). The advantage of this will be discussed later.

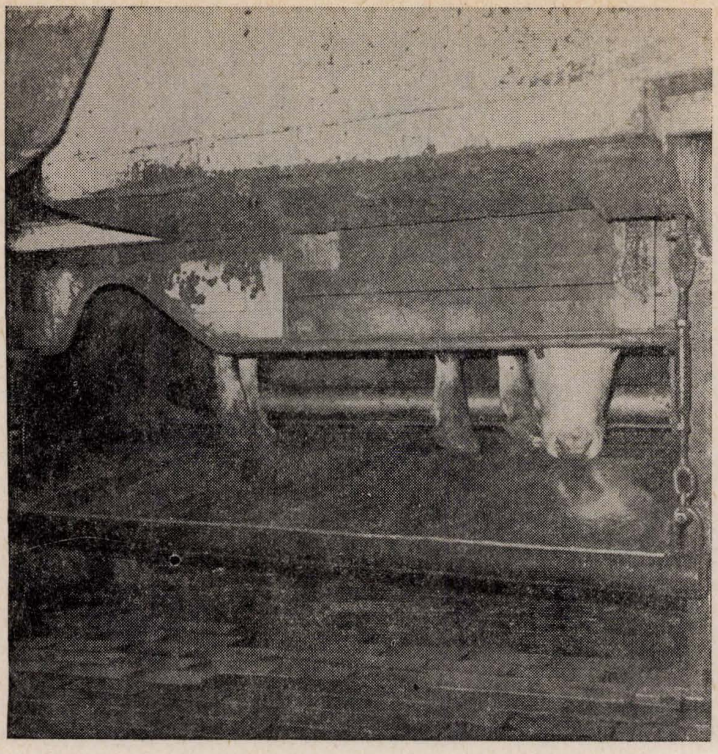


Fig. 5. *The knocking pen.*

Shechita on the suspended animal

The fundamental reason for laying down the animal prior to *shechita* is to prevent any pressure on the knife during the act of slaughtering, since such pressure would disqualify the *shechita* according to the *"Derassa"* principle. Because of that principle and because of the pressure of the laws protecting animals (99), it was suggested in some states in America, to permit *shechita* on the suspended animal (147). Two systems were suggested:

1) The animal is attached to a rotating platform by its legs. When the platform reaches the turning point it collapses; the animal drops and remains suspended with its four legs in the air.

The height of the animal is so adjusted that the *shochet* can perform the *shechita* easily and quickly while the animal's head hangs freely in the air (see Fig. 6). Because of technical difficulties involved, this method is practicable only in large slaughter houses and under special conditions.

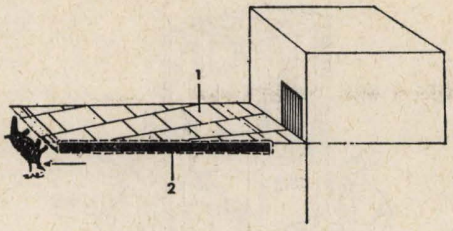


Fig. 6. *The rotating platform.*
1. the level of the second flood, 2. the rotating platform. The arrow indicates the point to perform shechita.

2) In many places a different method of suspending the animal is used. One hind leg of the animal is connected to a set of pulleys by which the animal is lifted until the entire animal is suspended. The *shechita* then is performed from the side (see Fig. 7).

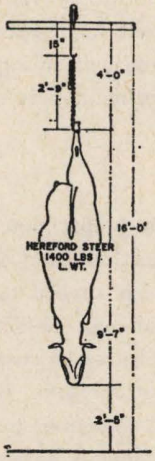


Fig. 7. *Shechita in the suspended animal.*

Shechita on the standing animal

Recently a special apparatus has been constructed which permits *shechita* on the standing animal. The best model is the "Kill Pen", manufactured by Schmidt & Co. (see Fig. 8). It is also known

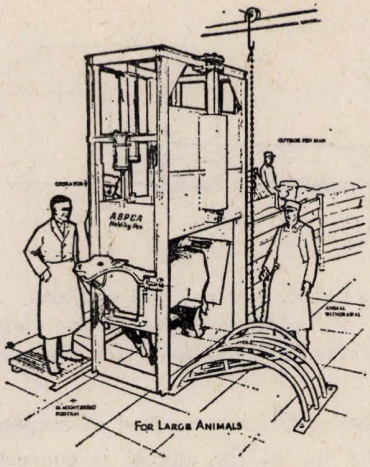


Fig. 8. *The kill pen.*

as "Elizabeth Pen" or "A.S.P.C.A. Pen", since it was invented and approved by the American Society for Prevention of Cruelty to Animals. The most important improvement in this method is the fact that *shechita* is performed at an angle of 45 degrees upward. The halachic status of this method is still under discussion (38, 43, 141a).

Conclusion

In order to improve the preparation for *shechita* and in order to comply with the various laws for the protection of animals, modern techniques have been applied to develop various apparatuses for the casting of animals before *shechita*. These include systems in which the animal may be suspended, laid down, or held in standing position during *shechita*. By applying any of these methods it is hoped that all objections to casting (41) and *shechita* on the basis of cruelty to animals have been eliminated.

Chapter IV

GENERAL OBSERVATIONS DURING SHECHITA

The general observations before, during, and after *shechita* were divided by Levy (102, 103) into four stages: the preparatory, the operation, the stillness of the animal after *shechita,* and the reflex stage.

The preparatory process and the slaughtering have been discussed in the previous chapters. The other stages will be discussed here.

Immediately after the cut the animal stops moving, there is a temporary respiratory arrest followed by strong movements of the body muscles, and heavy breathing. In order to determine the exact process, a series of measurements were carried out during the different stages.

Rapidity of blood loss

Immediately after the cut, a large stream of blood issues from the carotids, while a smaller stream of blood originates from the peripheral end of the carotid and from the jugular veins. To describe the force of the blood flow coming from the central stump of the carotids, the figures given by Sahlstedt (132) are very helpful. These are presented in table 1. The mean values for the first 30 seconds are about 1 or 2 percent of the total amount per second, i.e. 10 to 20 liters per minute. Dukes (33) found similar results. Most of the animals, according to Dukes, were almost completely bled within 2½ to 3 minutes, though small amounts kept dripping for 6 to 7 minutes.

Table 1

Blood flow after shechita (according to Sahlstedt 132)

Cumulative time (seconds)	Percent of total blood flow
30	33
60	50
120	70
180	83
240	90
300	95

Table 2

Length of resting phase after shechita (Levinger 92)

Observation number	Time (sec.) up to first movement	Observation number	Time (sec.) up to first movement
1	60	17	15
2	20	18	17
3	40	19	25
4	150	20	10
5	25	21	18
6	15	22	8
7	100	23	45
8	40	24	23
9	15	25	13
10	40	26	20
11	8	27	15
12	45	28	8
13	15	29	25
14	100	30	100
15	10	31	40
16	20	32	23

Mean 35. S.D. 33

Duration of motor resting phase

With the great majority of animals a resting phase may be observed immediately after the cut. Table 2 shows the amount of

time between the cut and the first muscle movement. One may see individual variations in the length of the resting period. During this period the animal lies on the floor and, apart from heavy bleeding, nothing unusual can be observed.

A number of scholars have observed and confirmed the existence of the motor resting phase (33, 65, 91, 102). Dukes (33) measured the phase in five animals and found the average time between the cut and the first movement to be 20.5 seconds ranging from 15.2 to 35.5 seconds. Levinger (91) measured 10 animals and found a variation of 15 to 120 seconds with a mean of 47.5 seconds. Because of the great variation, Levinger (92) extended the measurements to 32 animals and found a range from 8 to 150 seconds and an average of 35 seconds.

Even in the few cases where the resting phase was shorter than 10 seconds, it is extremely unlikely that the muscle reaction was a reaction to pain caused by the cut. An animal reacts normally to pain within 1 to 2 seconds. Whether the pain stimulus can reach the brain after 8 seconds will be discussed in connection with the central nervous system.

To what extent the resting phase affects the vital functions is a matter of controversy. Hoffman (65) contends that the corneal reflex cannot be elicited during the resting phase, while Basel (9) observed the corneal reflex for a longer period.

In this connection one may mention that the resting phase after the cut is a typical phenomenon and has been confirmed for all body muscles including the respiratory muscles.

Strained respiration

Following the resting phase a slowing and deepening of respiration may be observed. Although as a result of the cut all air passes now through the tracheal opening, one can observe accentuated reflex movements of the nares. The time of the onset of this form of respiration is given in table 3, and its meaning has been discussed in literature (i.a. 22, 74). This pattern of respiration has also been observed in animals after *shechita.* Mangold (114) speaks of it as a "hunger for air" and maintains that the animal suffers from air deficiency caused by *shechita.*

Table 3

Beginning and end of strained respiration, after shechita (Levinger 91)

Observation number	Strained respiration Beginning (sec.)	End (sec.)	length (sec.)
7	25	75	50
8	17	100	83
4	12	55	43
5	55	150	95
6	18	140	122
2	30	85	55
3	20	100	80
9	14	80	66
1	40	75	35
10	18	90	72
Mean and S.D.	24.9±13.4	95.0±29.5	70.1±26.2

Others believe this to be wrong and a result of the impression caused by the air stream flowing through the trachea instead of through the nares, as is the case before *shechita*. Such gasping was also observed in isolated heads (154).

Attempts to get up

Observations made on 150 animals showed that six animals attempted to correct the head position, the others remained with the head on the side and made no such attempts. Three of the six animals actually raised their heads and brought them into normal positions. One sheep tried getting up and, with some help, succeeded in standing on its legs in a wobbling position for a few seconds. The cut in this animal was examined and it was found that one carotid artery was intact, and while the animal was standing, slight pressure was administered to the intact blood vessel; and the animal immediately collapsed. An intact blood vessel was detected in another one of the six animals. The other four, unfortunately, could not be examined because of the work in the abattoir.

The following reactions were noted in three of the four unexamined animals: One raised its head to a normal position but remained with one limb in the air. Two of the four animals extended and flexed their necks several times and raised their heads in the air for a few seconds.

The rest of the 150 animals either remained completely quiet, or they showed two or three movements of the neck and head, and then remained lying quietly on the floor till the onset of terminal muscle spasms.

Muscle spasms

Following the resting phase the animal goes into a stage of strong muscle contractions. Some describe these contractions as

Table 4

Length of period of muscle contraction

Animal No.	Begin after *shechita* (sec.)	length (minutes)	Remarks
1	15	2.5	
2	25	3.0	
3	17	3.0	only tail movements for about 1 min.
4	30	4.0	
5	35	3.0	
6	30	5.0	beginning with neck contraction
7	60	6.0	
8	20	6.0	
9	16	5.0	
10	35	4.5	
Mean	28.3±13.5	4.2±1.3	

conscious reactions (17). Careful observation of the spasms show that they are uncoordinated and represent neither reactions to given stimuli nor attempts at straightening out. Similar reactions may be observed in decerebrated animals.

Stimulation of the motor centers in the cortex is impossible immediately after *shechita* (54, 64, 108). The spasms are probably the result of hypoxia in the centers of the spinal cord. Now, if an animal without a brain reacts in exactly the same way as the animal after *shechita,* it cannot be argued that the spasms are the results of brain stimuli. Literature refers to these spasms as uncoordinated muscle movements (102).

Some observers have described cases in which the animals stood up after the cut (65, 78, 80, 88). There may be three reasons for such a phenomenon: 1) Incomplete severance of the blood vessels. 2) The collapse of the blood vessels and the resultant prevention of bleeding (6). 3) The cut was done by untrained persons resulting in an incomplete or incorrect cut. That incomplete severance of the blood vessels may happen, has been shown above. Hoffman (65) also stated that in one case bleeding was not normal. The second possibility is only theoretical, since under normal circumstances bleeding is very rapid and will not permit the collapse of the blood vessels. The third possibility is the most realistic, since in most experiments no regular *shechita* was performed, but processes imitating *shechita* which favored the experimentors.

Dukes (33) found that the first movement after the resting phase was a leg motion followed by a long series of anoxic convulsions ending in the death of the animal.

Reflex behavior

Corneal reflex was selected for the examination of reflex activity. The advantages are that, firstly, this reflex activity may be easily observed during *shechita* work. Secondly, the reflex center is located in the brain. Thirdly, it is the reflex which remains active during anaesthesia and can therefore be used as a control. Results of testing the corneal reflex of various ruminants are given in Tables 5 and 6.

Extinction of reflex activity was tested in cattle, goats, and sheep. In cattle and goats it was studied repeatedly until it disappeared, whereas in sheep the presence of reflex activity was tested after ten seconds, and only 1 out of 10 sheep showed reflex

Table 5

Time of disappearance of the corneal reflex in cattle after shechita (Levinger 91)

Observation number	Time of disappearance (in seconds)
1	20
2	70
3	20
4	60
5	90
6	23
7	25
8	15
9	30
10	35
Mean	38.8±25.5

Table 6

Time of disappearance of the corneal reflex in the goat, after shechita (Levinger 91)

Observation number	Time of disappearance (in seconds)
1	4
2	5
3	3
4	4
5	immediately
6	4
7	4
8	immediately
9	?
10	7
Mean	3.4±2.2

activity. The test showed that reflex activity persists in cattle longer than in the smaller animals. (See also chapter IX).

Conclusions

When *shechita* is performed properly, it is followed immediately by a resting phase, during which no attempts at rising occur and all defensive movements are absent. Later, however, respiration begins and becomes deeper and slower. During this period the corneal reflex gradually disappears.

Chapter V

ANATOMY OF ARTERIAL BLOOD VESSELS SUPPLYING THE BRAIN IN RUMINANTS

During *shechita* all soft parts of the neck, including carotid arteries and jugular veins, are severed, while the vertebrae and the spinal cord as well as the vertebral arteries and veins are not affected (52, 91, 130). To ascertain whether the brain could be supplied with a blood flow after *shechita,* it is necessary to study the anatomical condition of the blood supply to the brain.

In all mammals the arterial blood supply to the body flows through the aorta which originates at the left ventricle of the heart. The venous blood is drained from the tissues through the superior and inferior venae cavae which return the blood to the right atrium of the heart. This blood entering the right atrium flows through the right ventricle into the pulmonary artery, where the venous blood (low O_2 content) is reoxygenized in the lungs and pushed back into the left ventricle through the pulmonary veins and the left artium. Accordingly, the blood supply to the brain is from the aorta, and its return to the heart is through the superior vena cava.

The aorta leaves the heart at its dorsal surface and is directed cephalad and dorsally. This part of the aorta is called the ascending aorta. Immediately after leaving the heart it gives off the left and right coronary arteries. The next vessel emerging from the aorta in ruminants is the common brachiocephalic trunk, which supplies blood to the fore legs, throat and head in all hoofed animals (31). In most other animals, the brachial arteries leave the aorta separately, and thus no typical brachiocephalic trunk exists. In carnivora and swines, the left brachial artery is not a part of the trunk, whereas the right one originates from the trunk.

[In these animals the anatomist speaks of a partial brachiocephalic trunk].

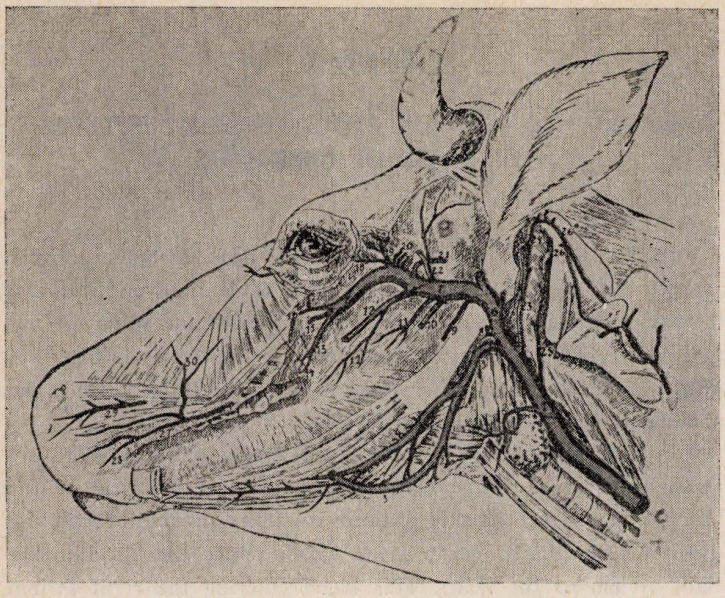


Fig. 9. *The arteries in the head of the cow. (Modified after Dobberstein and Koch, 31).*
1. Common carotid artery, 2. Cranial thyroid artery, 3. external maxillary artery, 4. lingual artery, 5. sublingual artery, 6. external carotid artery, 7. internal maxillary artery, 8. ascending palatinal artery, 9. pteroideal artery, 10. alveolaris mandibulae artery, 11. pteroidal artery, 12. buccinatorial artery, 13—14. palatinal arteries, 15. sphonepalatinal artery, 16. infraorbital artery, 17—19. orbital arteries, 20—21. branches supplying the epidural rete, 22. deep temporal artery, 23. occipital artery, 24. condyloidal artery, anastomoses through 25 with the 26 vertebral artery, 27—30. end branches of the facial artery.
T. trachea, C. carotid artery at the point where shechita is performed, B. brain region.

After giving off the brachiocephalic trunk, the aorta turns dorso-caudally and is called descending aorta, or thoracic aorta. This vessel gives off branches for the thoracic muscles and the thoracic organs and flows through the diaphragm into the ab-

domen. There it is called the abdominal aorta, which supplies the abdominal organs and muscles as well as the hind legs.

The blood supply to the brain is therefore effected only through branches derived from the brachiocephalic trunk.

As mentioned above, the brachiocephalic trunk is a large vessel which leaves the aorta at the aortic arch. Ten to fifteen cm distally, the left subclavian artery leaves the trunk. From this vessel the following arteries arise: costocervical artery, profound cervical artery, vertebral artery, inner thoracic artery, the omocervical trunk, and the external thoracic artery. The subclavian artery terminates as the axillary artery. The right costocervical, profound cervical, and vertebral arteries directly branch from the brachiocephalic trunk. The rest of the brachiocephalic trunk is the brachiocephalic artery.

The right subclavian artery arises from the brachiocephalic artery, giving off as branches the right inner thoracic artery, the omocervical trunk and the external thoracic artery. The terminal portion of the subclavian artery is the right axillary artery. After dividing, the vessels forming the arteria brachiocephalica are called the bicarotid trunk. The bicarotid trunk divides into the left and right common carotid arteries (35).

Directions of flow of branches of brachiocephalic trunk

Although the branching of the different parts of the left and right arteries is not at the same point, the branch arteries continue symmetrically.

The costocervical artery supplies arterial blood to the lower part of the trachea, the pleura and the intercostal muscles (31, 35).

The profound cervical artery supplies blood to the muscles of the neck (31).

The vertebral artery gives off the transversa artery of the neck which perfuses the cervical muscles (31). The artery itself continues into the vertebrae in the direction of the head, giving off branches supplying the cervical muscles. At the end of the artery a communication with the occipital artery can be seen (2, 35, 56, 107, 116, 136, 137, 160), as well as some branches, more or less developed, to the brain. We will discuss this point later.

The internal thoracic artery goes along the thoracic wall supplying the muscles of this region, and gives off branches to the mediastinum, diaphragm and organs of the thoracic cavity.

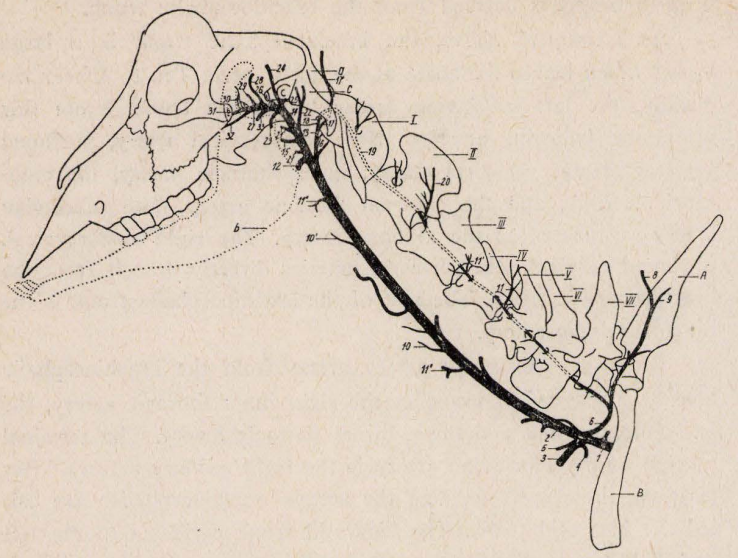


Fig. 10. *Semi-diagramatic illustration of the arteries in the region of the neck and head of the goat. (After Levinger and Spörri). 1. end of the brachiocephalic trunk, 2. common carotid artery, 3. left subclavian artery, 4. internal thoracic artery, 5. omocervical artery, and 9. transversar artery of the neck, 10—10'. branches for trachea and oesophagus, 11—11'. muscle branches of the common carotid artery, 12. lingual artery, 13. occipital artery, 14. external carotid artery, 15. masseteric artery, 16. medial meningeal artery, 17—17'. caudal meningeal artery, 18. condylic artery, 19. medial part of the vertebral artery, which anastomoses with the condylic artery, 20. lateral part of the vertebral artery, 21—21'. rami parotidici, 22. auricular artery, 23. alveolar mandibulae artery, 24. superficial temporal artery, 25. nasal auricular artery, 26. proximal branch to the rete, 27. internal maxillary artery, 28. deep temporal artery, 29. external ophthalmic artery, 30. distal branches to the rete, 31. dorsal branch of the internal maxillary artery, 32. ventral branch of the internal maxillary artery, 33. buccinatorial artery, a. condylus occipitalis, b. outlines of the removed mandibula, c. jugular processus, I—VII. cervical vertebrae, A. first thoracic vertebra, B. first rib.*

The omocervical trunk supplies arterial blood to the cranial thoracic muscles as well as the shoulder girdle muscles (35).

The external thoracic artery travels caudally on the ventral side of the thorax and abdomen. It terminates at the udder, and therefore it is also called the external mammary artery (35).

The axillary artery flows into the foreleg and divides into a dorsal part, the subscapular artery entering the scapular muscles, and a ventral part extending distally as brachial artery. This vessel supplies arterial blood to the foreleg.

The common carotid artery travels along the neck and supplies the neck and the head. The branches of this artery will be discussed later.

From this entire description it may be seen that only two vessels contribute the arterial blood supply to the head, namely the carotid artery and the vertebral artery. During the *shechita* the carotid arteries are severed, but not the vertebral ones.

It seems of interest to study the exact flow of each of these vessels in order to determine the contribution of each of the vessels toward arterial blood supply to the brain.

Common carotid artery

The common carotid artery divides into the left and right carotids, which travel along the neck dorsolateral to the trachea (35). Each of these vessels gives off a few small branches to the muscles as well as to the trachea and the oesophagus (91).

After some branching to the muscles, the carotid artery reaches the region of the head.

The common carotid artery terminates by dividing into three vessels: (31, 33) the occipital artery, the external maxillary artery, and the external carotid artery. The internal carotid artery, which in other animals is the major vessel supplying arterial blood to the brain, atrophies in all ruminants before, or immediately after, birth (35, 56). Although Zhedenov (160) described its total obliteration at the age of about one, or one and a half, years, most other investigators could not find a functional internal artery in any of the ruminants studied (19, 33, 35).

Occipital artery

The occipital artery is one of the terminations of the common carotid artery (33). In most cases it arises from the common carotid artery before its bifurcation into the external carotid artery and the external maxillary artery (91).

At this point, in many cases, a fibrous strand, which is a rudiment of the obliterated internal carotid artery, can be seen (35).

In cattle the occipital artery is a relatively small vessel in comparison with that of other animals (33). The muscle groups which in the horse are supplied by this vessel, obtain their blood supply in ruminants from the lateral branch of the vertebral artery.

The occipital artery gives off during its course the following branches: (31)

1. ascending palatinal artery; 2. medial meningeal artery; 3. caudal meningeal artery.

The main branch of the occipital artery then enters the foramen hypoglossi as condylic artery, gives off some small branches to the meninges, and finally anastomoses with the medial branch of the vertebral artery (35).

According to Heeschen (56), the whole occipital artery is larger in sheep than in cattle, and it gives off larger and more muscular branches. Nevertheless, the main branch of the occipital artery is the condylic artery.

In goat: according to Schwartz (137), the occipital artery divides after giving off the medial meningeal artery, into two nearly equally large branches, the caudal meningeal artery and the condylic artery.

The further course of the condylic artery will be described in connection with the vertebral artery.

External maxillary artery

This vessel, which derives in some cases from the external carotid artery, supplies blood to the region of the maxilla and its muscles (35).

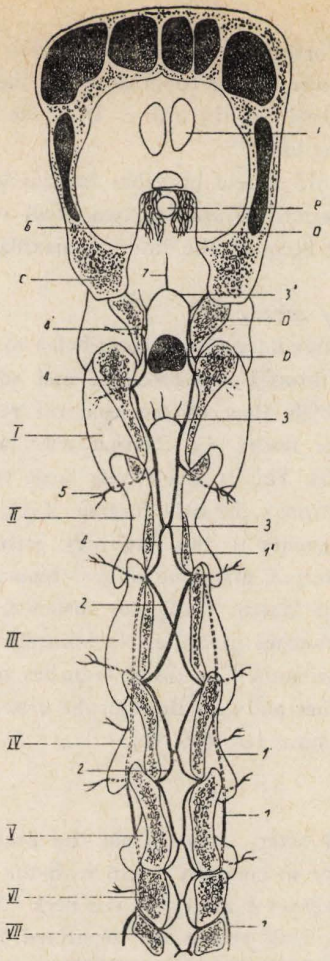


Fig. 11. *Semidiagramatic illustration of the epidural arteries of the spinal cord and the brain. Dorsal view (after Levinger and Spörri). 1. vertebral artery, 1'. its ramus medialis after entering the vertebral canal, 2. communicating branches to the rami spinales of the vertebral arteries, 3—3'. anastomoses between the branches of the vertebral artery, 4. medial branch of the vertebral arteries. 4'. anastomoses with the condylic artery, 5. muscle branches of the lateral part of the vertebral artery, 6. epidural rete, 7. small communication branch to the epidural rete (here not injected through its length). I—VII. cervical vertebrae, a. occipital bone, b. atlanto-occipital foramen, c. temporal bone, d. hypophyseal fossa, e. hypophysis, f. ethmoidal fossa.*

External carotid artery

The main branch of the termination of the common carotid artery is the external carotid artery. It is the main supplier of arterial blood to the brain.

After giving off a few branches to muscles and vessels to the neighboring organs, as well as two small vessels to the meninges, this vessel becomes the internal maxillary artery (31).

Internal maxillary artery

The internal maxillary artery contributes to the vascular supply of the brain through one proximal and several distal branches (33, 35), which flow to the epidural rete. The proximal branch to the rete leaves the internal maxillary artery shortly after its origin (33). This is a relatively large vessel which enters the rete directly through the oval foramen (91).

The distal branches to the rete vary greatly in their number (33), and, therefore, different authors report various numbers. Schmidt (136) and Martin (116), for instance, mention the presence of 2 to 8 branches in cattle. No accurate figures are available for other ruminants. The distal branches to the rete anastomose with each other and pass through the orbitorotundal foramen directly to the epidural rete (33, 91).

Vertebral artery

The vertebral artery arises from the brachiocephalic trunk either separately or in common origin with the profound cervical artery and the transverse artery of the neck (33). When a common vessel exists, both vessels are separated from the vertebral artery and run as previously described. The vertebral artery passes in a dorso-convex arch to the sixth cervical vertebra where it enters the transverse foramen, and runs along the transverse processes via a canal until the border of the 3rd and 2nd cervical vertebrae. In its course, at the level of the intervertebral foramina, it presents, on the one hand, lateral branches to the muscles, and on the other, smaller branches which enter the vertebral canal through the intervertebral foramina, and anastomose extradurally with the corresponding branches from the other side (35); in this

manner they form a segmentally arranged rhomboid or H-shaped vascular network (33, 91). At the posterior end of the epistropheus (according to Ellenberger and Baum (35), in rare cases also between the 4th and 3rd cervical vertebrae) the vertebral artery divides into a medial and lateral branch.

The lateral branch (ramus lateralis) subdivides chiefly into the suppliers of neighbouring muscles (91). A smaller branch, however, passes through the transverse canal up to the atlas, where it emerges and anastomoses with the occipital artery (19, 33, 35, 56, 91).

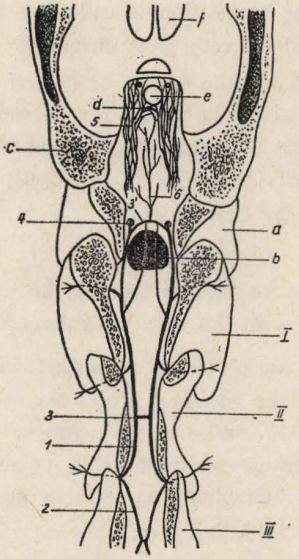


Fig. 12. *Semi-diagramatic illustration of the arteries in the region of the anterior neck and the base of the skull in the sheep. Dorsal view (after Levinger and Spörri).*
1. Ramus medialis of the vertebral artery (after its entry into the vertebral canal), 2. anastomose between the rami mediales of both sides, 3. anastomose between the rami mediales at the level of the epistropheus, 4. condylic artery after leaving the hypoglosseal canal, 5. epidural rete, 6. communication between the vertebral artery and the epidural rete, I—III. cervical vertebrae, a. occipital bone, b. atlanto occipital foramen, c. temporal bone, d. hypophyseal fossa, e. hypophysis, f. ethmoidal fossa.

The medial branch (ramus medialis) of the vertebral artery reaches the vertebral canal and passes headwards in the epidural space, where it forms various anastomoses with the corresponding branch of the other side (35, 91). Through the foramen vertebrale laterale of the atlas, bilateral communications are effected with the occipital artery (33), and, through the hypoglossal canal, anastomoses are made with the condylic artery (33, 35, 91).

According to Martin (116), one branch is given off directly from the vertebral artery, and several smaller branches from the anastomoses of the ramus medialis of the vertebral artery with the occipital artery (the connection is called by him arteria cerebrospinalis) to the epidural rete (rete mirabile).

The anastomosis of the medial branch of the vertebral artery with the condyloid artery is typical for all ruminants, as was confirmed by all authors who studied the blood supply to the brain in this family of animals (2, 3, 4, 5, 33, 35, 56, 91, 116, 136, 137), but it was not mentioned by Canova (19).

Connection of the common trunk of the condyloid and vertebral arteries with the rete mirabile epidurale

One of the main problems concerned with the questions of *shechita* is whether the vertebral artery may supply the brain with arterial blood after severance of the carotids.

The communications between this vessel and the epidural rete vary between individuals as well as according to different species of ruminants (6, 91).

Generally, in cattle some branches are easy to inject (35) Schmidt (136) described a large variation in these vessels, and in one cow there were completely absent. Similar results were found by others (94).

In sheep a weak connection (5, 56, 91) may be found leading to the posterior part of the rete.

Schwartz (137) writes concerning the goat: "Only relatively few or very weak twigs of these united arteries take part in the formation of the caudal or spinal area of the rete mirabile at the base of the skull". Levinger (91) could not find in his studies even

one vessel which was injected, although the vertebral arteries and the condyloid arteries were well injected. Similar results were described by Baldwin and Bell (5).

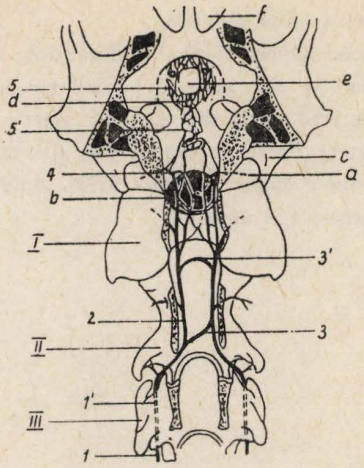


Fig. 13. *Semi-diagramatic illustration of the arteries in the region of the anterior neck and the base of the skull in cattle. (After Levinger and Spörri)*
1. vertebral artery, 1'. in the transversar canal, 2. ramus medialis of the vertebral artery, 3. anastomoses between the rami of both sides, 4. anastomosis between the ramus medialis of the vertebral artery and the condylic artery, 5. epidural rete, 5'. posterior part of the rete, which communicates with the vertebral and condylic arteries, I—III. cervical vertebrae, a. occipital condylus, b. altanto-occipital foramen, c. occipital bone, d. hypophyseal fossa, e. hypophysis, f. ethmoidal fossa.

Vascularization of the brain

The vascularization of the brain in ruminants is derived, as mentioned before, from the epidural rete.

In cattle the epidural rete is situated at the base of the skull and is relatively extensive. In small ruminants it is restricted to the immediate neighborhood of the hypophysis and dips into the sella turcica (33, 91).

Conclusions

The arterial blood supply to the brain comes from vessels which arise from the epidural rete (rete mirabile epidurale). This rete is developed in ruminants to take the place of the circle of Willis found in most other animals.

The main blood supply to the epidural rete is derived from the rete branches of the internal maxillary artery. However, smaller vessels derived from the condylic artery and the medial branch of the vertebral artery, respectively, also take a small part. Participation of these latter vessels varies individually and according to the species of ruminants.

Chapter VI

BLOOD FLOW TO THE BRAIN DURING CLAMPING OF VESSELS AND SEVERING OF CAROTIDS

In chapter V, it was mentioned, that the brain in the ruminants receives practically its whole blood supply via the internal maxillary artery. The latter vessel receives its blood supply either directly from the external maxillary artery, or indirectly by the vertebral-occipital arteries.

The questions to be answered in this chapter are:

1) Are the vertebral arteries able to supply the entire brain, after ligation of the carotids?
2) Does blood reach the brain after carotids and occipital arteries have been ligated?
3) Does blood reach the brain after the carotids are severed?

Effect of ligation of the carotid arteries on body equilibrium in ruminants

During this century many people have dealt with the effect of ligation of the carotids on the blood supply to the brain. The first experiments on occlusion of the carotid arteries were described by Cooper (27).

Hoffman (65) and Baum (10) among others (79) contend that the large vertebral artery is capable of taking over the blood supply to the brain.

It is known that occlusion of the carotid arteries in man results in unconsciousness (129). According to Rossen et al (129), nystagmus can be observed after 5 to 6 seconds and complete unconsciousness supervenes after 7 to 8 seconds. In our experi-

ments (91) the animal began to sway and recovered after a short time (Table 7).

Table 7

Behavior of the animal after clamping of the carotids (Levinger 91)

1st Experiment

Time			Procedure, Symptoms
Hrs.	Min.	Sec.	
15	56	55	Clamping of left carotid
15	57	40	Clamping of right carotid
15	58	30	Slight drowsiness, slight swaying, micturition
15	59	30	Defaecation, drowsiness and equilibrium begins to be recovered.
16	00	25	Opening of clamp on the left carotid
16	00	35	Opening of clamp of the right carotid

Following this experiment the animal showed completely normal behavior and ate some offered fodder (oats).

2nd Experiment

Time			Procedure, Symptoms
Hrs.	Min.	Sec.	
16	03	00	Clamping of right carotid
16	03	15	Clamping of left carotid
16	03	45	Slight drowsiness, defaecation
16	04	30	Slight swaying, uncertain gait
16	04	35	Micturition, complete recovery of equilibrium
16	05	55	Opening of clamp on the right carotid
16	07	00	Opening of clamp on the left carotid

Completely normal behavior of the animal after the experiment.

In a careful experiment Dukes (33) tied the carotids of four sheep and five calves and repeated the procedure several times in each animal. His general findings agree with those described above.

Dukes describes the following symptoms in detail. The animal gained in tolerance with each repetition of the procedure. Only one of the sheep fell to the floor and lost consciousness, and that only during the first occlusion. In all the other animals only little effect on equilibrium was noted, and in most cases no abnormal behavior could be noted. Other experimenters reported similar results. It may therefore be assumed that the brain recovers after a short period of time.

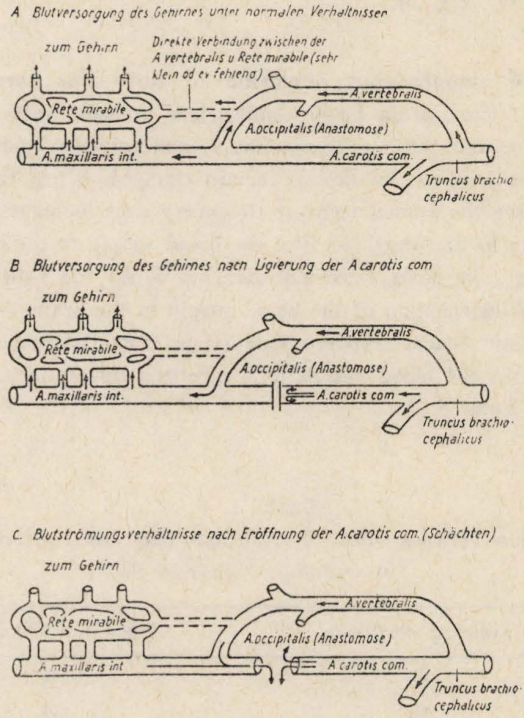


Fig. 14. *Blood flow through the carotid and vertberal arteries under different circumstances. (From Spörri 142).*
A. normal conditions. Both routes are open to the brain.
B. during clamping of carotids, blood flows through the vertebral into the internal maxillary artery.
C. during severance of carotids, both carotid and vertebral blood flow out through the wound.

This may be explained in one of two ways. Either that the circulation adjusts itself to the new circumstances, or that the brain adjusts itself to function with a reduced supply of blood. In view of the fact that the blood supply of the brain is almost entirely delivered by the internal maxillary artery, a regulatory mechanism must exist which supplies the blood to the maxillary artery even after the carotid arteries have been ligated. It could supply the blood via the condylic artery which receives its blood supply from the ramus medialis of the vertebral artery. For these relations see Fig. 14.

Effect of simultaneous occlusion of both the carotid and occipital arteries on body equilibrium in ruminants

Ten seconds after occlusion the animal collapses and does not recover so long as the vessels remain clamped. When the clamps are released the animal recovers. Recovery time increases in direct proportion to the length of time the blood supply to the brain was interrupted. In goats (Protocol Nr. Zg. 5/60) the ratio between length of interruption of the blood supply to the brain — duration of occlusion — and recovery time (time from the release of the occlusion of the blood vessels to the getting up of the animal) is given in Table 8.

Table 8

Relation between time of occlusion and time of recovery (in seconds). (Levinger 91)

Time of occlusion	*Time for recovery*
10	35
15	35
25	80
41	119
42	78
70	195
80	140

Recovery time in the above experiment is not absolutely proportionate to the duration of occlusion. The reason might be the fact that the animal did not get up immediately when it was capable of doing so. Dukes (33) reported similar results in his experiment. He writes: "Complete recovery was fairly rapid after the removal of the clamps."

Reactions of the standing animal with its neck cut

Some experimenters attempted testing the function of the brain following *shechita* on the standing animal. Results of the experiments vary. Hoffman (65) describes the results of two experiments:

a) A 12 year old cow lay on the floor 20 seconds after *shechita*. 90 seconds after *shechita* it lifted the head for about 20 seconds.

b) A 3 year old bull. This animal remained standing after *shechita* for 2½ minutes, afterwards it lay down and looked around. Bleeding in this animal was abnormally slow.

Klein (79) describes results of his observations, which are similar to those of Hoffmann. He carried out his experiments on animals slaughtered in standing position as well as recumbent animals.

In our experiments (91) both carotids were exposed under local anaesthesia. They were then opened with a single cut. The animal reacted as follows: after opening of the carotids the animal remained standing for 8 seconds, afterwards it began to sway and collapsed 10 seconds after the opening of the vessels. There were absolutely no defence movements or any other indications of painful sensations. Thirty seconds after the cutting of the carotid arteries the animal took several deep breaths followed by a number of muscle spasms which stopped after 3½ minutes.

The results described above are in line with the results obtained following the simultaneous ligation of the occipital and the carotid arteries. One may therefore conclude that after *shechita* the brain ceases to receive a sufficient blood supply to retain its ability to function (11).

It must be mentioned here that *shechita* on the standing animal does not provide the same conditions for bleeding the animal as does *shechita* on the recumbent animal. The reason is that in the standing animal the weight of the head presses on the wound and causes obstruction of the flow of blood at the peripheral end of the common carotid artery, and therefore more blood reaches the brain. Such obstruction delays the drop in blood pressure, which is another reason why more blood flows from the vertebral artery to the epidural rete via the occipital artery.

The experiments and results of Hoffmann and Klein may be explained as follows:

a) Examination whether both carotids had been completely severed may have been incomplete, since even Hoffmann reports that the animal was not bleeding normally.

b) It is also possible that the "margins" of the cut stuck together and interfered with the free flow of blood from the carotid arteries. This enabled more blood to reach the brain from the rete mirabile via the occipital and the internal maxillary arteries.

Blood flow in the internal maxillary artery during ligation of the carotids and during *shechita*

As mentioned above, following the occlusion of the carotids the blood flow in the internal maxillary artery must increase, whereas following the severance of the vessel it must decrease and eventually stop. This theory was tested by two methods:

1) A manometer was placed on the internal maxillary artery while the carotid was clamped and when the carotids were severed.

2) India ink was introduced into the right ventricle while both the carotids and occipital arteries were clamped. In other experiments the ink was introduced into the right ventricle five seconds before *shechita*. In still other experiments the ink was introduced into the left ventricle immediately before *shechita*. (Because of technical difficulties, the last injections were done under anaesthesia permitting the insertion of the cannula directly into the left heart ventricle.) Results of the two processes are given in figures 15—16.

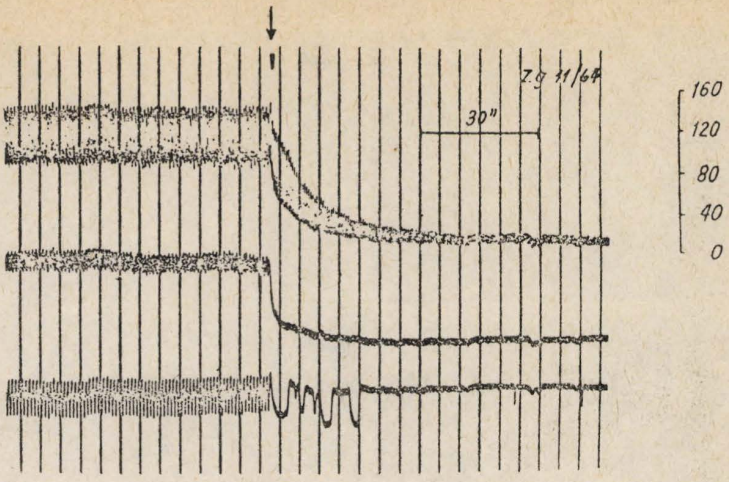


Fig. 15. *The effect of severing the carotids on the blood pressure in the femoral artery (upper curve), in the internal maxillary artery (middle curve) and on respiration (lower curve). (From Spörri, 142). Note that the blood pressure in the internal maxillary artery falls immediately after severing the vessels.*

Method number one shows that the flow of blood in the maxillary artery decreases and drops to zero within 5 seconds after *shechita* (see Fig. 17). Although Dukes (33) reported a flow of blood in the vertebral artery in calves and sheep as much as 27.5 seconds and 20.9 seconds after *shechita* respectively, that blood must have flown through the proximal stump of the carotids.

As for the second process, the injection of india ink enabled the experimenter to determine whether following ligation of the carotid and occipital arteries blood would still reach the brain. Results show that some ink could be detected in the epidural rete, which means that a small amount of blood can reach the rete without passing through the internal maxillary artery.

Five seconds before opening the carotid arteries india ink was injected into the right ventricle of the heart, and it was possible to detect microscopically some ink in the main ventral vessels of the brain. Similar observations were found when the ink

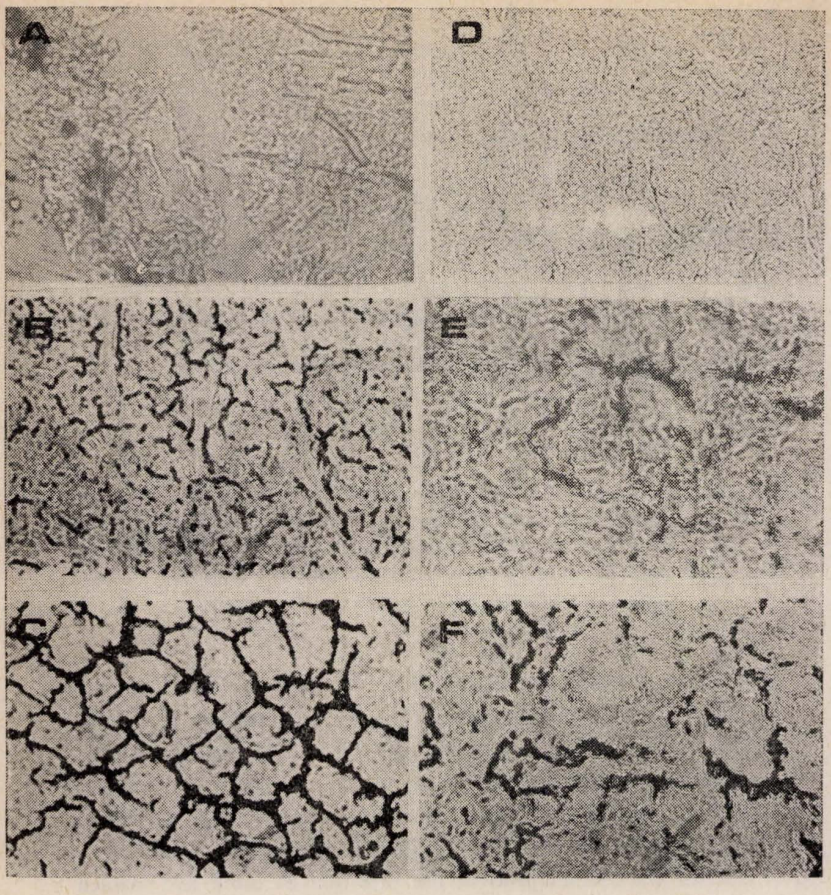


Fig. 16. *Frozen sections from different organs in an experiment where india ink was injected into the left heart ventricle immediately before* shechita *(×200).*
A. lower surface of the brain; B. spleen; C. liver; D. dorsal brain cortex; E. kidney; F. lung.
(Note that in sections B, C, E and F large amounts of ink impregnation are seen, whereas in section A small amounts of color are seen in the outer surface and no color is seen in deeper substance and in the dorsal parts of the brain — section D).

was introduced, during *shechita,* into the left ventricle of the heart, in the anaesthetized animal.

Histological examination of the brain and other vital organs showed that the liver and the kidneys contained considerable amounts of ink, while in the brain only small traces of the ink could be found and only in the ventral marginal areas. Lieben (110) injected carbon into the vertebral artery immediately after *shechita* and he could not detect any carbon in the brain. On the basis of this it may be stated that, while small amounts of blood may reach the rete mirabile and even some blood vessels leading to the brain, there is not enough pressure to supply substantial amounts of blood to the brain.

Conclusions

Blood to the brain must be supplied via the internal maxillary arteries. After ligation of the carotid arteries the internal maxillary arteries may obtain some blood from the vertebral arteries via the occipital arteries. When that supply is interrupted the brain receives an insufficient supply of blood.

These conditions apply only when the carotids are occluded. However, if they are severed, the blood pressure drops immediately and only a small amount of blood may flow through to the brain via the vertebral arteries. Parts of this small amount of blood are lost through the wound, and the amount of blood reaching the brain is certainly insufficient to maintain its functioning.

Chapter VII

BLOOD PRESSURE AFTER SHECHITA AND BLOOD FLOW THROUGH THE VERTEBRAL ARTERY

The perfusion of an organ with blood depends on the effective perfusion pressure and the vascular resistance (15). Effective perfusion pressure of the brain is the gradient between arterial blood pressure and internal jugular venous pressure (15).

Within certain limits, the cerebral perfusion can regulate itself. Kleinerman et al (81), showed that lowering the arterial blood pressure in man to a level of 60 to 70 mmHg by means of high spinal anaesthesia (paralyzing most of the sympathetic vasoconstrictor nerves) had no effect on cerebral blood flow, which indicates that the brain can compensate for low blood pressure by lowering cerebral resistance. When the changes exceed certain limits, the autoregulation becomes ineffective. In such cases signs of ischemia appear (40). Another possible compensation is the increased oxygen extraction from the blood, which can be done only under conditions of normal pressure in the cerebral circulation. If pressure drops in the cerebral circulation, resistance in the CNS and the blood brain barrier decreases the contact between the blood and cerebral tissue.

In the light of the above statements, the study of the circulatory system in general, the blood pressure in the vessels supplying blood to the head and the brain, as well as the effective pressure in the brain, during and after *shechita,* is very interesting.

Blood pressure in the body during bleeding

Blood pressure measurements were carried out, during the bleeding period, in the femoral artery (91), the brachial artery (143), the carotid, the vertebral artery (107), the ineternal

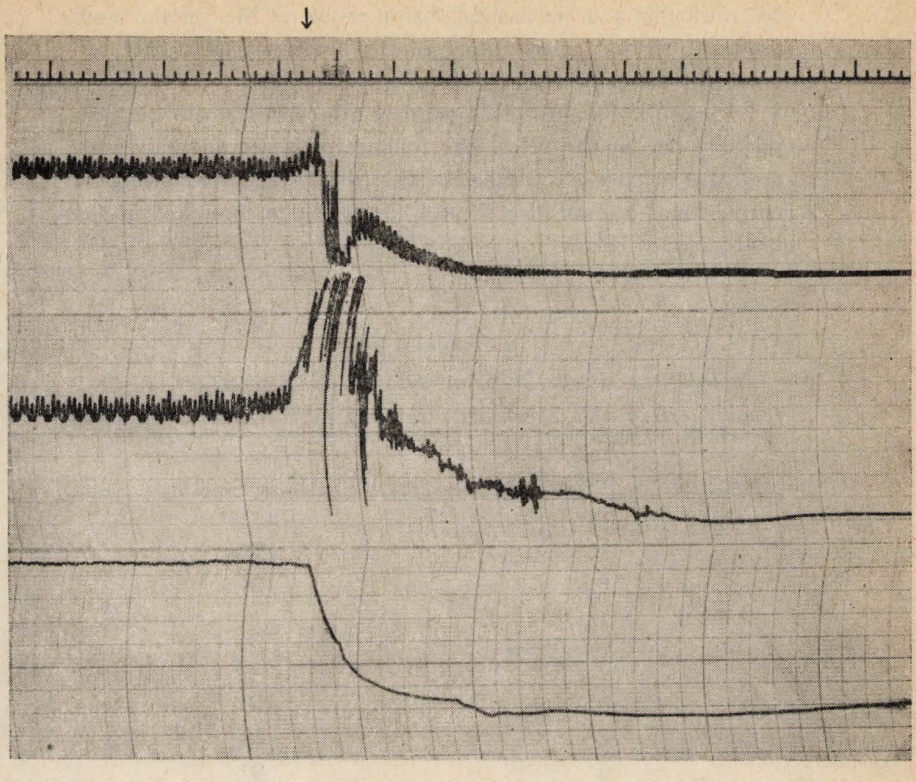


Fig. 17. *Effect of shechita on the blood pressure, in the sheep, in the femoral artery (second curve), on the cerebrospinal fluid pressure (third curve) and on the blood flow in the internal maxillary artery (lower curve). Upper indicates time (in seconds). During holding of the neck the cerebrospinal fluid pressure increases, but at the same time the fall in the flow in the maxillary artery may already be seen.*
(The arrow indicates time of severance of carotids).

maxillary artery (142), the basilar artery (107), as well as in the brachiocephalic trunk (101).

The results are presented in tables 9—10 and in Figures 17—19, and they show a general pattern that a large gap in the circulation leads to a rapid collapse of the entire circulatory system as a result of the drop in blood pressure. Lieben (107)

described this and emphasized that pressure in the vertebral and profound cervical arteries dropped rapidly immediately after severance of the carotids (Fig. 19).

Dukes (33) studied blood pressure after cutting both the carotids and the jugular veins. His findings on sheep and calves are presented in table 11. During the first three seconds following the cut he found a mean drop of 46.8 mmHg/sec in sheep and of 50.2 mmHg/sec in calves.

Table 9

Typical experiment showing systolic blood pressure in the femoral artery of a sheep after shechita cut (After Levinger 91)

Time (Sec.)	Pressure (mmHg)
Before the cut	
10	132
1	138
0.5	128
After the cut	
1	110
2	88
3	80
4	60
5	48
6	35
7	32
8	29
9	24
10	20
12	17
14	16
16	16
20	16
30	12
40	5

Table 10

Typical experiment showing the fall in blood pressure in the brachial and femoral arteries of the dog after dissecting both carotids

	Brachial			Femoral		
	systolic	diastolic	amplitude	systolic	diastolic	amplitude
Pressure before dissecting of vessels	170	130	40	155	125	30
After dissection						
1 sec.	125	85	40	110	85	25
2	105	75	30	100	75	25
3	100	75	25	95	75	20
4	85	60	25	85	60	25
5	70	55	15	70	55	15
7	60	50	10	55	40	10
10	45	40	5	40	25	15

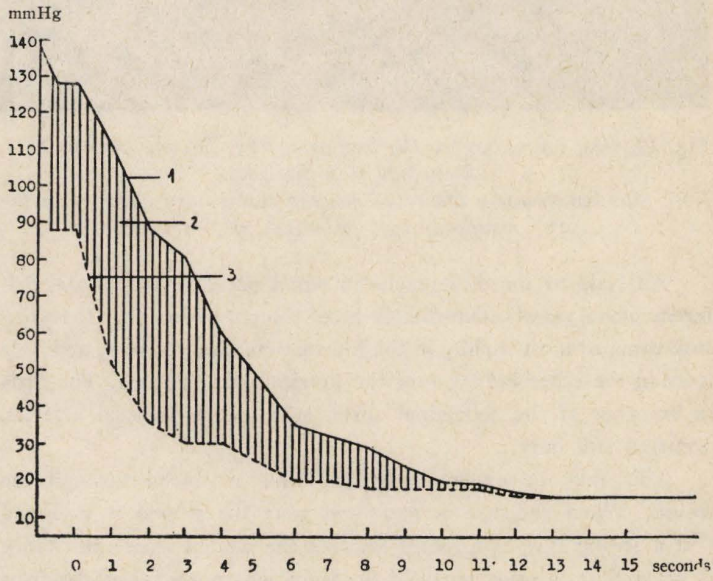


Fig. 18. *Graphical evaluation of the pressure in the femoral artery after shechita (Levinger 91).*
1. systolic pressure, 2. diastolic pressure, 3. pulse pressure.



Fig. 19. *Blood pressure in the basilar artery, (From Lieben, 107). Star indicates shechita.*
Note that immediately after the cut the respiratory changes in the curve disappear and pressure falls rapidly.

Analysis of the differences in blood pressure within the different blood vessels immediately after the cut shows that the pressure dropped most rapidly in the internal maxillary artery, and only later in the other branches of the brachiocephalic trunk. The drop in branches of the abdominal aorta, such as the femoral arteries, occurred still later.

This may be explained by the flow of blood through the wound. When pressure is measured near the wound it is found that a strong flow is directed towards the wound where resistance is lower than in other parts of the body, where special mechanisms such as peripheral vasoconstriction try to maintain a minimal pressure.

Table 11

Blood pressure in the vertebral arteries before and after severance of the carotids and jugular veins (from Dukes 33)

Animal No.	Drop in pressure from (mmHg)	to	Time (Sec.)
A. Sheep			
×84	85.0	0.0	0.6
×100	135.0	35.0	1.0
×25	125.0	50.0	0.8
×65	150.0	75.0	3.0
×77	115.0	70.0	3.0
230	145.0	50.0	1.8
×24	90.0	35.0	1.2
098	125.0	50.0	2.0
095	125.0	25.0	2.4
×145	135.0	50.0	1.6
×101	125.0	50.0	0.8
094	115.0	75.0	1.2
×240	135.0	65.0	1.4
B. Calf			
031	135.0	0.0	2.4
083	150.0	50.0	2.0
048	135.0	70.0	0.36
044	140.0	50.0	2.4
032	160.0	60.0	2.2
045	150.0	90.0	1.6

Influence of the drop in blood pressure on brain vascularization

As already mentioned, the perfusion of an organ depends on the difference between arterial inflow and venous withdrawal. As the pressure decreases, so does perfusion, the degree of decrease depending on the resistance in the blood vessels. If there is no change in resistance, the degree of the drop in pressure will be the same as that of perfusion.

Theoretically then, there could be a collateral flow of blood to the brain via the vertebral and occipital arteries. With the drop in blood pressure the flow in the vertebral arteries also decreases, and therefore, even the blood which would normally flow through the vertebral artery and reach the maxillary artery, will now flow out through the wound, as illustrated in Fig. 14C.

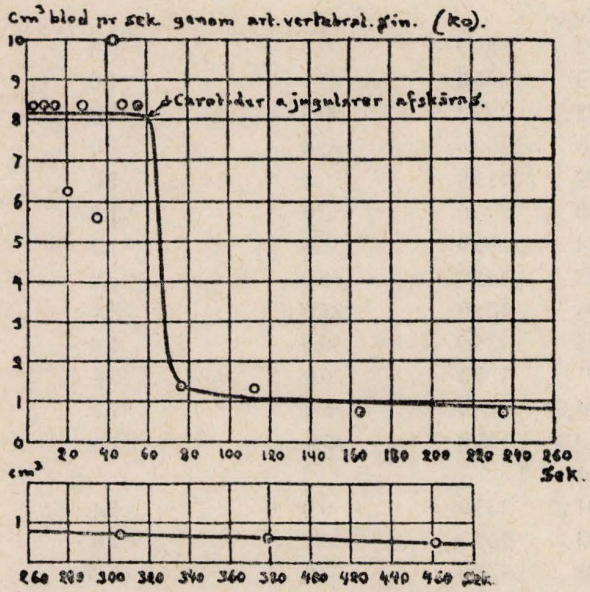


Fig. 20. *Blood flow in the vertebral artery (From Sahlstedt, 131). Arrow indicates severing of carotids and jugulars.*

With the aid of a "Strolmuhr", Sahlstedt (131) measured the actual flow through the vertebral artery. The results are shown in Fig. 20. He calculated that under normal physiological conditions the vertebral artery supplies approximately 20 percent of the cerebral flow. After *shechita* the vertebral flow drops to approximately 1/25 to 1/30 of the normal physiological amount of blood needed for brain function. This amount of blood, even if it does reach the brain, is insufficient to maintain brain function. If the jugular veins have also been severed, the brain is unable to main-

tain pressure in its tissues (64) and cerebrospinal fluid pressure drops immediately. This point will be discussed later.

Dukes (33), measuring the pressure in the peripheral end of the carotids, stated that "The pressure in this artery dropped to the zero point in less than 0.2 sec., a period of time so short as to be almost immeasurable with our type of equipment". In recent experiments the author measured the blood flow in the internal maxillary artery following *shechita* and found that it dropped very rapidly.

Conclusions

Blood pressure drops very rapidly after severance of the carotids.

The degree of the drop is not the same throughout the circulatory system. The most pronounced drop is found in the brachiocephalic trunk and its branches, while the drop is more gradual in the abdominal aorta and its branches.

In the internal maxillary artery as well as in the peripheral carotid arteries it drops to zero within the first second after *shechita*. In the brachial as well as in the vertebral artery the pressure is approximately 45—50 mmHg/sec for the first three seconds, while in the femoral artery the drop is only 15—20 mmHg/sec during the first three seconds.

The degree of the drop in blood flow within the vertebral artery appears to be similar to that of the drop in blood pressure.

Considering the rapid changes in blood pressure and blood flow, it is very unlikely that blood could reach the brain even during the first second after the carotids had been severed.

Chapter VIII

EFFECTS OF SHECHITA ON THE HEART

The function of the heart is based on an internal pace maker which functions automatically. The heart may continue to function "in vitro" if conditions are preserved for it (15). Function of the heart is regulated by the sympathetic and parasympathetic nervous system which receives its orders from the brain (15). Damage to the central nervous system may, though not inevitably, cause the disfunction of the heart. Normally the cessation of heart function is caused by metabolic factors such as anoxia. The arterial blood supply to the heart comes through the coronary arteries which leave the aorta immediately after leaving the heart.

Shechita severs the carotid arteries and the jugular veins as well as the vagal nerves. The immediate effect is a drop in the amount of blood flowing into the right section of the heart. Pressure in the aorta drops and therefore less blood is flowing into the coronary arteries which affects the function of the heart. The cut through the nerves may also influence the function of the heart.

Figure 21 shows the influence of *shechita* on the heart when a) only the carotids had been severed, and b) when both the carotids and the nerves were severed. In both cases the ECG shows that impulses in the heart are present for more than five minutes after *shechita* (77).

Spörri (142) measured the blood pressure in the right heart ventricle and found that it remained normal during the first minute after *shechita,* which means that blood is being pushed through the heart and reaches the opening at the carotids. This may explain the fact that bleeding by the *shechita* process is nearly maximal.

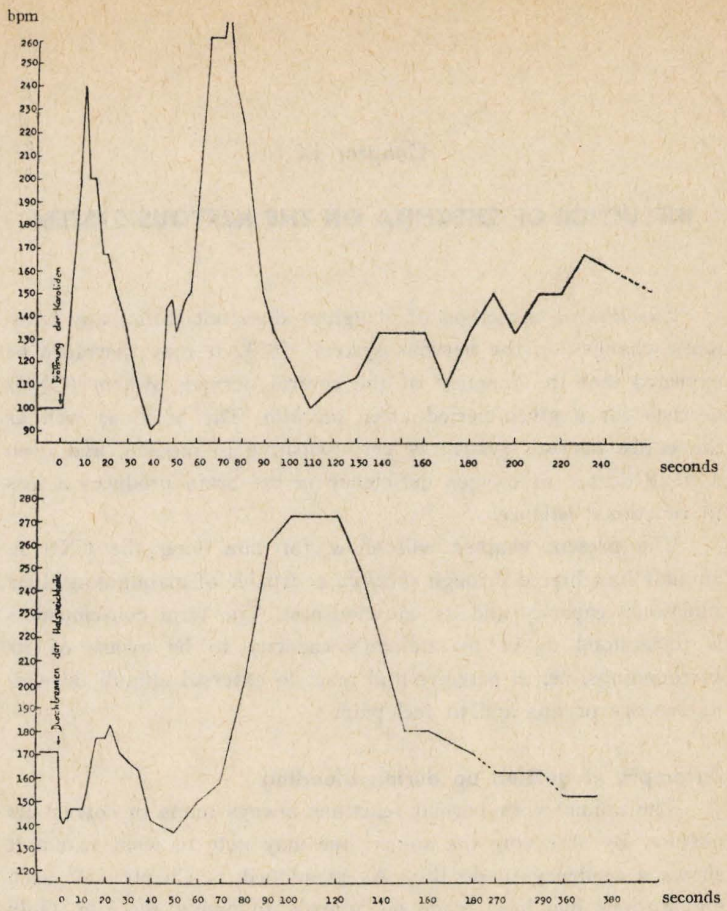


Fig. 21. *Heart rate after severing of carotids (upper) and shechita (lower) (Levinger 91).*

Conclusion

The heart forces blood through its chambers for more than one minute after *shechita*. After that, the mechanical function of the heart is disturbed since much less blood is available. The previously undisturbed function of the heart helps the bleeding process and is therefore very important in the *shechita* process from the aspect of shelf life of the meat (see chapter XIII).

Chapter IX

INFLUENCE OF SHECHITA ON THE NERVOUS SYSTEM

Shechita as a method of slaughter does not inflict any traumatic changes on the nervous system (100). It may therefore be expected that the function of the central nervous system (CNS) persists for a given period after *shechita*. The brain as well as the entire nervous system is very sensitive to oxygen, and even a small degree of oxygen deficiency in the brain produces a loss in functional balance.

The present chapter will show for how long the CNS in animals slaughtered through *shechita* is capable of maintaining their functional capacity and its consciousness. The term consciousness is understood to be the animal's capacity to be aware of its surroundings, i.e. to perceive and react to external stimuli through its sensory organs and to feel pain.

Attempts at getting up during bleeding

The animal with normal reactions always tends to correct its posture. By observing the animal one may note to what extent it shows a tendency to do this. As mentioned in Chapter IV such observations had been made on animals following *shechita*. Only in rare cases were such attempts at getting up observed, and those occurred in animals with their carotids not completely severed. In every case where the carotids had been completely cut no such incidents were observed.

When *shechita* was performed in the standing animal, the animal collapsed 10 seconds after the cut. In the light of the above it may be assumed that the animal is not completely paralyzed during the resting period after the cut, since the standing animal does not lose its balance. On the other hand, the animal does not

attempt to correct its position, and that suggests unconsciousness. This could be the result of hypoxia caused by an insufficient supply of arterial blood to the brain (83). At any rate one may assume that the function of the brain should remain intact for a while. The immediate loss of reaction must therefore be explained differently, i.e. it may be the result of a shock reaction caused by loss of pressure in the brain and in the cerebrospinal fluid.

Corneal reflex

The corneal reflex which should give information on the function of the brain was examined in animals after *shechita*. Experiments showed that corneal reflex disappeared much faster in small ruminants than in cattle. In small ruminants it ceased 10 seconds after *shechita* while in cattle it took at least 20 seconds before the reflex disappeared (see Tables 5—6). Our experiments could not be confirmed to agree with the description of this phase by Hoffman (65), but they did agree with the findings of Basel (9).

Nangeroni and Kennett (122) studied various reflexes after *shechita* and found that of all the reflexes that had been studied, the tail, the palpebral, the corneal, and the pedal reflexes remained functioning longer than described in the present study. Disappearance of reflexes occurred in the following order: the palpebral, the corneal, and last the pedal reflex. The tail reflex in sheep vanished before all the others, while in calves it disappeared at the same time that the corneal or the pedal reflexes ceased functioning, and at times even later. Nangeroni and Kennett also mention that the reflexes remained functioning after the cessation or cortical function.

The corneal reflex could be elicited even after *shechita* in decerebrated animals (60). This fact shows that the reflex is controlled by lower brain centers.

Cerebrospinal fluid pressure

The primary function of the cerebrospinal fluid is to maintain pressure in the brain (28). Changes in the cerebrospinal fluid pressure lead to significant changes in behavior. Levinger (97) described an experiment where the withdrawal of 3 ml of cerebro-

spinal fluid caused significant changes in the behavior of a cat. Its pupils widened as in death, it stood still and did not react to the surroundings, and became apathetic.

CFS is produced by the choroid plexuses (14, 28, 29) of the ventricles and by filtration through the ventricular wall (125). Its production depends on the arterial blood supply. The CSF flows into the spinal subarachnoid space through the foramina of Lushka, and is absorbed into the venous blood through the arachnoid willi (157).

It has been shown that the venous influence of CSFP is greater than the arterial one (24). Clamping of the jugular veins is followed by an increase in CSFP, known as the Queckenstedt effect (32), and is shown in Fig. 22.

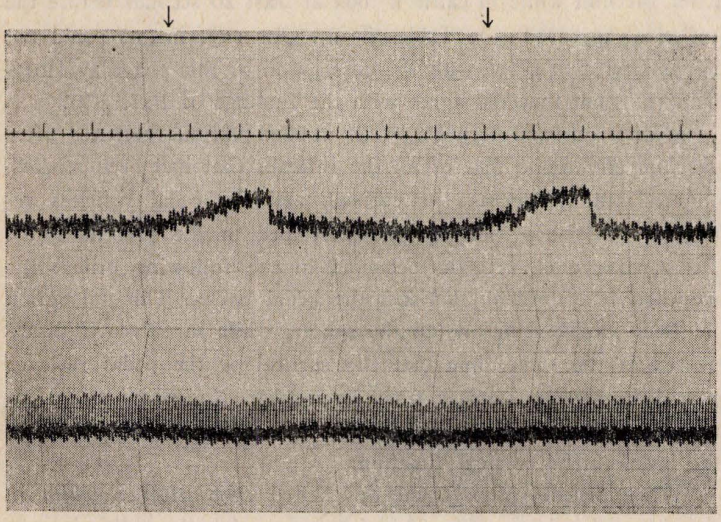


Fig. 22. *The Queckenstedt effect.*
Arrows indicating time of pressure on the jugular veins. The change is significant in the cerebrospinal fluid pressure (upper curve) but no change is seen in blood pressure (lower curve).

Shechita severs the jugular veins: its effect on CSFP was investigated. A Feldberg canula (39) was implanted into the lateral ventricle of the brain of sheep, goats, dogs, and cats, according

to the procedure described by Pappenheimer (123). Simultaneous recordings were made of the CSFP and the blood pressure in the brachial and femoral arteries. A typical recording is presented in Fig. 23 showing a greater relative drop in CSFP than in blood pressure. This may explain the shock that occurs immediately after the cut of the arteries and veins of the neck in *shechita.*

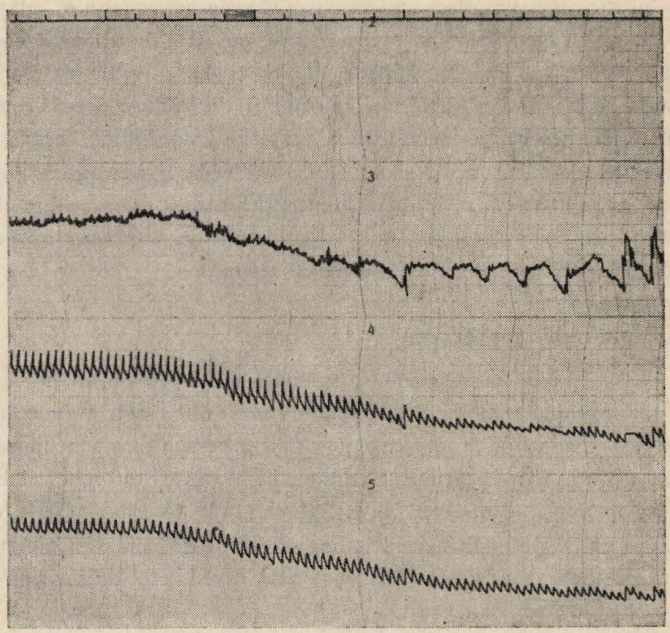


Fig. 23. *The effect of shechita on the cerebrospinal fluid pressure (second curve), on the blood pressure of the brachial (third curve) and femoral artery (lower curve), in the dog. The upper curve indicates time (seconds) and the black point gives time at bleeding. Note that pressure falls most rapidly in the brain, then in the brachial, whereas the change in the femoral artery is the most delayed.*

The immediate effect of *shechita* appears to be a shock, and the animal loses consciousness within 3 to 5 seconds as a result of anoxia. Both effects, the shock and the anoxia, are more extreme in the cortex than in the other parts of the brain.

The distraction of the animal

A sudden change of posture can produce in man a disturbance of the function of the brain (48). This is known as an orthostatic collapse. It may also play a part when the animal is laid down during casting. Every phenomenon of shock can be divided into two phases, according to Frei (44). The first phase is a feeling of insecurity when standing, and this is followed by a phase of adaptation of the circulation to the new position. The duration of each phase depends on circumstances, the first phase is longer if the change in position is rapid, and shorter if the change occurs more slowly. If the change in posture is very slow, adaptation occurs so fast that the first phase cannot be observed. If casting is done very rapidly, *shechita,* if done immediately, may come within the first phase. According to Hall (55), already in 1927 casting and *shechita* could be completed within 30 seconds.

Pain caused by shechita

Even if it is assumed that an animal can feel pain at the time of *shechita* and that the pain impulses may still reach a functioning pain center, one must remember that a person may cut himself with a very sharp instrument without being aware of it, until his attention has been directed to it. Spörri (142) described a case of a man cutting his throat including the trachea and oesophagus, but not the carotids, and therefore was saved. He later reported that the pain was not great.

According to Pinetesau (124) and Schneunert-Trautman (135) ruminants belong to the least sensitive animals. They are probably much less sensitive than man. It should also be mentioned that pain receptors are chemoreceptors sensitive to chemical substances released or formed when cells are damaged. There may be a long interval, even of several seconds, between the time of the lesion and the perception of pain. If the brain is capable of functioning only for a brief period after *shechita,* it is possible that the capacity for the perception of pain has ceased before the pain impulses can reach the pain centers. It is therefore reasonable to assume that the animal is not affected by the *shechita.*

Conclusions

After *shechita* the central nervous system undergoes certain changes. Blood pressure as well as CSFP rapidly drop and produce shock reactions in the animal. Within 8—10 seconds the centers for maintaining equilibrium lose their regulatory capacity. Corneal reflex disappears in small animals, though in larger animals it takes 20 to 40 seconds before it disappears. Since it is known that the neo-encephalon is more oxygen sensitive than the phylogenetically older portions of the brain, it may be assumed that the functional ability of the cortex ceases within less than 10 seconds after *shechita.*

Since the animal does not move within 10 seconds, it may be concluded that the animal does not feel pain and that the movements of the animal are the result of reflexes in the spinal cord centers. The muscle contractions are uncoordinated and cannot be considered defense movements by the animal. They are rather reactions due to the firing of different centers in the nervous system and are the result of the anoxia in these centers.

Chapter X

THE EFFECTS OF SHECHITA ON THE ELECTROENCEPHALOGRAPH (EEG)

Brain activity may be measured by the potentials occurring on its surface. These are electric fields produced by ganglionic cells and dentrite firings during cell activity. In man as well as in other mammals, the EEG produces frequencies ranging between 0.5 and 40 Hz. In a resting and relaxed state a man shows frequencies of 8 to 12 Hz (alpha rhythm) (13, 51, 117). Man under high tension shows frequencies of approximately 14 to 55 Hz (beta rhythm), and during sleep or under anaesthesia the frequency drops to approximately 4—6 Hz (gamma rhythm). In pathological conditions such as hypoxia, hypercapnia, hypoglycaemia, etc., the frequency may drop to 0.3—3 Hz (delta rhythm) (13). Often under severe disturbances of brain function no potentials can be recorded. In pathological cases one may find recording of new forms of the potentials, such as spikes, bursts, etc.

The extreme sensitivity of the ganglion cells to oxygen deficiency has been known for a long time. More recently it has been demonstrated that the EEG is one of the most delicate indicators of cerebral hypoxia (26, 71, 82, 84, 117, 152). Based on these observations EEG recordings appeared to be a good source of information for the investigation of the effects of *shechita* on the animal, and experiments were carried out on animals after *shechita* both during the occlusion of the carotids and after severing them.

EEG recordings

The brain potentials were led directly from the cortex. For this purpose the bony skull was exposed, under local anaesthesia, and holes were drilled through the skull bones up to the dura mater.

Two holes were drilled cranial and two caudal to the fronto-parietal suture (21, 51). Brass screws were then inserted into the holes and electrodes attached to them, which in turn were connected to the EEG recorder.

Effect of occlusion on the EEG

The blood flow in the carotid arteries was interrupted by artery clamps. This was repeated six times within an hour with each occlusion lasting three minutes. During the first two occlusions only the behavior of the animal was observed, whereas during the next four occlusions the ECG and the EEG were also made to record simultaneously.

The recordings in a somewhat abbreviated form are presented in Table 7. The EEG showed identical changes during each of the occlusions of the carotids, with a normal frequency in sheep of 7 to 8 Hz interspersed with a recording of 15 Hz (see Fig. 24).

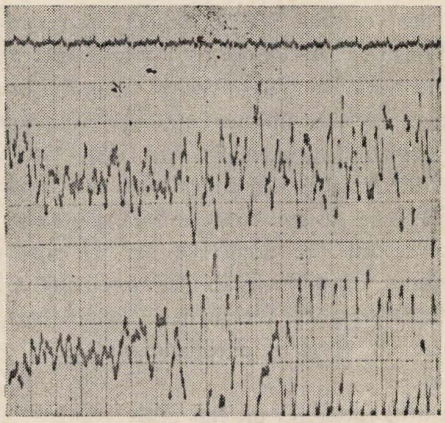


Fig. 24. *The effect of ligation of carotids on the electroencephalogram (Levinger 91).*
(Note the changes in the right part, compared to the normal EEG on the left).

When both carotids were clamped, large waves of frequencies with 4—5 Hz appeared 6 to 8 seconds after the application of the

clamps. These waves were markedly regular and often represented almost a pure sinus curve. When the blood flow in the carotids was restarted, the EEG assumed its original character within 5 to 8 seconds, i.e. it once again became a curve with a mixture of alpha and beta waves. An interesting fact is that during the occlusion phase the gamma rhythm changed into an alpha rhythm with greatly reduced amplitudes.

Similar observations were reported by Nangeroni and Kennett (122): "When the EEGs taken with the implanted rams during carotid clamping were analyzed, it was found that a definite change from the normal pattern appeared in each sheep, regardless whether or not the animal became ataxic". In their table they represent frequencies that are lower and amplitudes that are higher than normal values. Their findings are similar to those of the present study.

Reaction to the occlusion of both carotids in man

Although the blood supply to man's brain has two routes, the carotids and the vertebral arteries which open into the circulus arteriosus (Willisii), occlusion of both carotid arteries causes certain changes in behavior (75a). Within 5 to 7 seconds after occlusion a person becomes unconscious. Extensive tests have been carried on in aviation medicine in this field (12). With the aid of centrifuges the blood is withdrawn from the brain, and in most experiments the onset of unconsciousness is given as 6 to 8 seconds. Rossen (129) reports the occurrence of nystagmus after 5—6 seconds followed by unconsciousness 1.5 seconds later. Forster (42), applying an EEG recorder, found that EEG changes came somewhat later than the onset of unconsciousness.

Effect of carotid bleeding on the EEG

Bleeding through the carotids by severing them showed most marked changes on the EEG. Immediately after opening the carotids the EEG showed waves of high frequency and low amplitude, (a beta rhythm of the EEG) for a duration of 2 seconds. Suddenly the picture changed and very large waves of low frequency of 4—5 Hz appeared, the gamma rhythm. Ten seconds after

opening the carotids the excursion became very small and of high frequency for 2 seconds, which then changed into a wave of 3—4 Hz with medium amplitude. These may be gamma waves with a reduced amplitude. Thirty two seconds after the opening of the carotids all cortical excursions disappeared for the first time for a period of three seconds.

These were followed by some fairly large waves of 2.5 Hz (delta rhythm) (lasting 10 seconds), registered between the left occipital and right parietal electrodes. Excursions also occurred for 6 seconds in the lead registered between the right parietal and right occipital electrodes. The frequency of the waves varied between 2.5 and 4 Hz, i.e. a mixture of gamma and delta waves. Forty one seconds after opening the carotids all excursions disappeared at this lead, and only very slow and flat waves with a frequency of less than 1 Hz could be noted. Of note was the occurrence of small waves of 8 Hz with periodic increases and decreases in amplitude in the occipital (middle curve) registration. Two minutes and 10 seconds after the opening of the carotids the discharges halted and the EEG showed no further excursions (Zero state). The animal gave several muscle spasms at intervals of 15 to 20 seconds during which time the EEG showed abrupt excursions, which, however, were hardly potentials from the cortex, but were rather produced by movements of the head.

Discussion

Clamping the carotid arteries produces characteristic changes in the EEG (75a). The frequency of the waves decreases while the amplitude greatly increases, and the mixed alpha/beta type of waves changes into gamma type of waves. During this period the animal gives an impression of drowsiness, passes urine and faeces, and shows a slight disturbance of equilibrium (swaying). These symptoms may represent a certain lack of oxygen. The occurrence of gamma waves on the EEG indicates the presence of hypoxaemia of the brain. Pain reactions or a state of fear were not observed during these procedures. States of anoxia of the brain are therefore painless states.

Opening the carotid arteries leads at first to an increase in

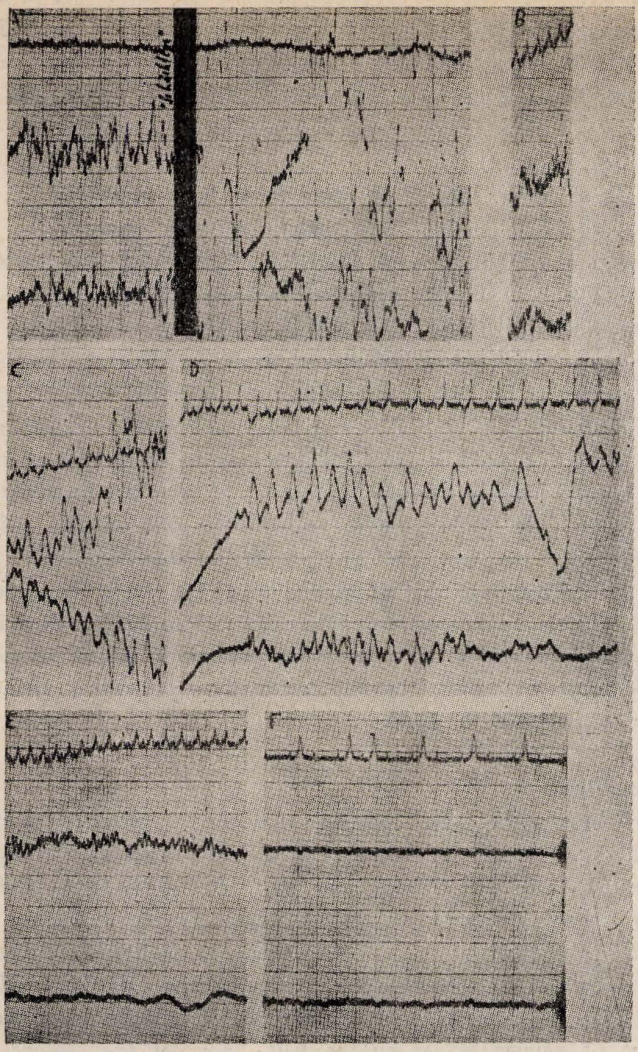


Fig. 25. *The effect of shechita on the electroencephalogram. (Levinger, 91)*

A. control, black mark is the time of shechita, B. 13", C. 22", D. 33", E. 81" and F. 180" after shechita.

frequency and a decrease in amplitude of the waves on the EEG. This may be interpreted as a state of increased irritability and hyperactivity, which, however, last only for 2 or 3 seconds. After that slow gamma waves with large amplitude appear, and that may be regarded as a sign of hypoxaemia. At this moment a clouding of consciousness may have set in already. Ten seconds later the frequency of the waves further decreases and a mixture of gamma and delta waves appears, which is a sign of a most severe hypoxaemia of the brain. As has been noted before, the systolic blood pressure drops 6 seconds after *shechita* to a value of 30—35 mmHg. As a result of such low blood pressure the cerebral circulation comes to a standstill, which must lead to a marked hypoxia or hypercapnia within a few seconds. Ten seconds after opening the carotids the cerebral function is so altered that the animal loses consciousness completely and collapses. Electric discharges of the brain may, however, be observed for 30—40 more seconds in the form of delta waves. Two or 2½ minutes following the opening of the carotids all discharge stops completely. Unlike the brain, the heart continues to produce strong action potentials (Fig. 25 e and f, uppermost curve). These disappear only 3—7 minutes after the start of bleeding.

The subcortical parts of the CNS send out impulses for a longer period, since muscle spasms continue to occur after the EEG ceased to show any potentials. No "convulsion potentials" were noted in the cortical EEG.

The general pattern of the findings of Nangeroni and Kennett is very similar to the findings of the present experiment and they are presented in Tables 12 and 13 and Fig. 26. The evaluation of consciousness by the EEG shows that unconsciousness sets in 3 to 6 seconds after *shechita*.

The EEG in isolated heads of decapitated rats (116a, 144) and mice (76) shows very similar pattern during the first seconds after the decapitation to that described here after *shechita*. During the first 4 to 6 seconds after decapitation a small decrease in amplitude and an increase in frequency is seen. This fact is explained as follows: even in the isolated head a small amount of oxygen is available, but since it is insufficient to keep the action of the brain

Table 12 *Analysis of the EEG in the ram (from Dukes 33)*

Ram Number	Time after cut	Frequency after Shechita Slaughter	Amplitude after Shechita Slaughter	Normal Frequency	Normal Amplitude	Anesthetized Frequency	Anesthetized Amplitude	State of Consciousness
18	2.3 sec.	5—25 cps	45—130 μV	6—35 cps	3—143 μV	4½—11 cps	15—375 μV	Poor, but not unconscious
18	3.3 sec.	2—10 cps	30—335 μV	6—35 cps	3—143 μV	4½—11 cps	15—375 μV	Unconscious
28	2 sec.	3—30 cps	10—200 μV	12—35 cps	3—100 μV	5—18 cps	15—300 μV	Poor, but not unconscious
28	2.8 sec.	5—30 cps	5—180 μV	12—35 cps	3—100 μV	5—18 cps	15—300 μV	Poor, but not unconscious
28	3.8 sec.	3—31 cps	10—225 μV	12—35 cps	3—100 μV	5—18 cps	15—300 μV	Nearly unconscious
28	4.8 sec.	3—7 cps	50—187 μV	12—35 cps	3—100 μV	5—18 cps	15—300 μV	Unconscious
60	15.2 sec.	4—4½ cps	10—105 μV	10—40 cps	2—140 μV	2—16 cps	4—450 μV	Unconscious
64	3.2 sec.	19—31½ cps	10—70 μV	26—45 cps	4—120 μV	3—6 cps	30—360 μV	Good
64	4.2 sec.	5—29 cps	7—120 μV	26—45 cps	4—120 μV	3—6 cps	30—360 μV	Poor, but not unconscious
64	5.2 sec.	4½—40 cps	10—160 μV	26—45 cps	4—120 μV	3—6 cps	30—360 μV	Poor, but not unconscious
64	6.2 sec.	3½—6 cps	15—270 μV	26—45 cps	4—120 μV	3—6 cps	30—360 μV	Unconscious
105	1.7 sec.	3—30 cps	10—100 μV	17—50 cps	5—85 μV	2—25 cps	5—370 μV	Poor
105	2.7 sec.	3—30 cps	10—100 μV	17—50 cps	5—85 μV	2—25 cps	5—370 μV	Poor
105	3.7 sec.	2—26 cps	10—145 μV	17—50 cps	5—85 μV	2—25 cps	5—370 μV	Poor, but not unconscious
105	4.7 sec.	3—13 cps	10—150 μV	17—50 cps	5—85 μV	2—25 cps	5—370 μV	Unconscious

Table 13 *Analysis of the EEG in the calf (from Dukes 33)*

Ram Number	Time after cut	Frequency after Shechita	Amplitude after Shechita	Normal Frequency	Normal Amplitude	Anesthetized Frequency	Anesthetized Amplitude	State of Consciousness
2	3.1 sec.	23—30 cps	10—135 μV	17—36 cps	5—180 μV	6½—12 cps	30—270 μV	Good
2	4.1 sec.	12½—23 cps	15—180 μV	17—36 cps	5—180 μV	6½—12 cps	30—270 μV	Poor
2	5.1 sec.	5½—22 cps	15—120 μV	17—36 cps	5—180 μV	6½—12 cps	30—270 μV	Poor, but not unconscious
2	6.1 sec.	2—5½ cps	15—120 μV	17—36 cps	5—180 μV	6½—12 cps	30—270 μV	Unconscious
3	2.2 sec.	27—34 cps	10—90 μV	21—36 cps	3—105 μV	6½—13½ cps	30—440 μV	Good
3	3.2 sec.	6—30 cps	10—165 μV	21—36 cps	3—105 μV	6½—13½ cps	30—440 μV	Poor
3	4.2 sec.	4—30 cps	10—270 μV	21—36 cps	3—105 μV	6½—13½ cps	30—440 μV	Poor, but not unconscious
3	5.2 sec.	2½—26 cps	10—360 μV	21—36 cps	3—105 μV	6½—13½ cps	30—440 μV	Poor, but not unconscious
3	6.2 sec.	3—6 cps	75—425 μV	21—36 cps	3—105 μV	6½—13½ cps	30—440 μV	Unconscious
5	2.4 sec.	16—22 cps	15—270 μV	19—34 cps	3—100 μV	6—11 cps	30—420 μV	Good
5	3.4 sec.	6—20 cps	15—360 μV	19—34 cps	3—100 μV	6—11 cps	30—420 μV	Poor, but not unconscious
5	4.4 sec.	7—10 cps	90—375 μV	19—34 cps	3—100 μV	6—11 cps	30—420 μV	Unconscious
6	3.9 sec.	2—18 cps	10—210 μV	21—37 cps	5—155 μV	2—17 cps	30—210 μV	Poor, but not unconscious
6	4.9 sec.	1—24 cps	15—225 μV	21—37 cps	5—155 μV	2—17 cps	30—210 μV	Poor, but not unconscious
6	5.9 sec.	1⅓—4½ cps	22—150 μV	21—37 cps	5—155 μV	2—17 cps	30—210 μV	Unconscious
8	2.9 sec.	3½—26 cps	15—180 μV	20—37 cps	7—190 μV	5—9 cps	35—445 μV	Poor
8	3.9 sec.	4½—24 cps	10—180 μV	20—37 cps	7—190 μV	5—9 cps	35—445 μV	Poor
8	4.9 sec.	3½—23 cps	15—225 μV	20—37 cps	7—190 μV	5—9 cps	35—445 μV	Poor, but not unconscious
8	5.9 sec.	3—15 cps	15—150 μV	20—37 cps	7—190 μV	5—9 cps	35—445 μV	Poor, but not unconscious
8	6.9 sec.	1—6 cps	20—165 μV	20—37 cps	7—190 μV	5—9 cps	35—445 μV	Unconscious

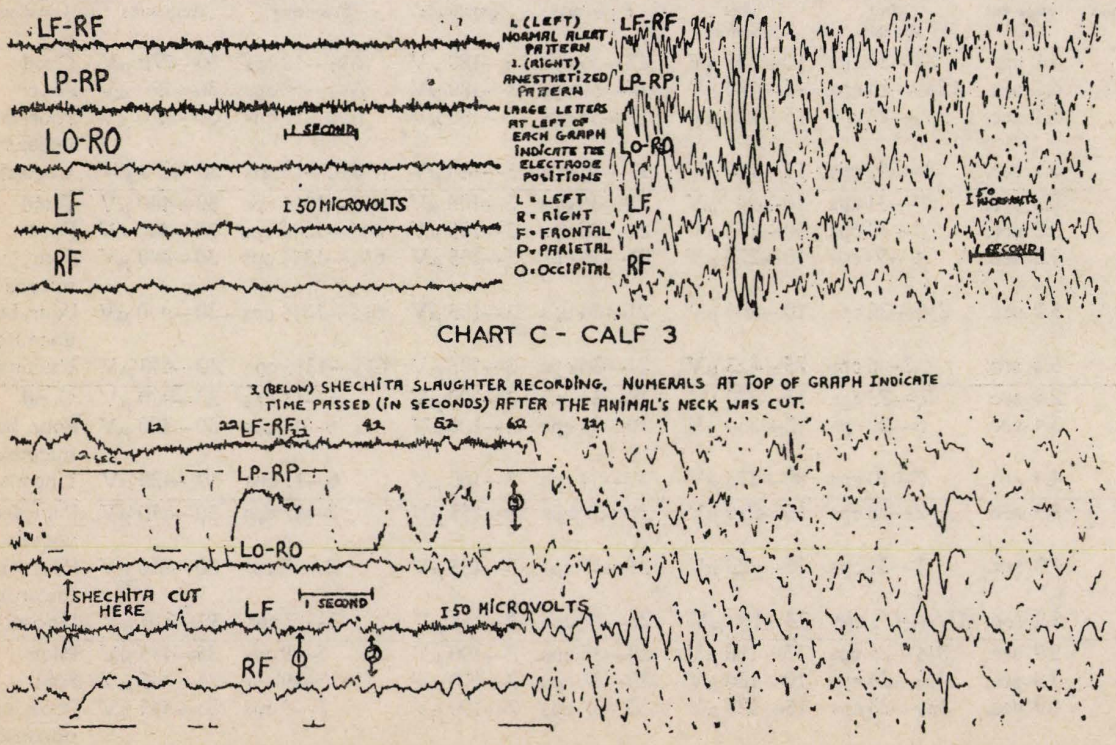


Fig. 26. *Effect of shechita on the electroencephalogram in the calf, taken from Nengeroni and Kennett, (122).*

for a longer period, the EEG looses its character after a few seconds. In recordings taken from the hypothalamus (76) the EEG could be recorded for much longer time.

In both cases, during *shechita* and after decapitation, the effects are very similar to those seen during inducing of anaesthesia. The first effect of anaesthesia is on the inhibitory synapses, which represent a stage of hyperactivity. The blocking effect on the excitatory cells follows later. These facts seem to be reflected in the EEG's described here.

Death and brain potentials

In defining death one must distinguish between clinical and biological death. Some cell complexes maintain their function for some time after clinical death. Clinical death is understood to show: cessation of the function of three important organic systems, viz. the brain, the blood circulation, and respiration. In every other method of slaughtering certain functions of the brain persist for some period of time. Forensic medical reports show (57) that persons committing suicide with a bolt pistol apparatus had lived for several hours afterwards, and that even the destruction of a large portion of the brain did not completely stop brain function.

To get more information on this aspect of slaughtering an experiment was carried out in which an animal was stunned with a bolt pistol and the reactions recorded on the EEG. It was found that although the brain was partially destroyed, brain potentials different from the normal were recorded for one minute. As is known, stunning with a bolt pistol destroys the regulatory centers in the medulla oblongata so that the animal collapses, stops breathing, and the regulatory mechanism of the circulation stops functioning. Whether the animal ceases to feel anything has to be reserved for further investigation. In each case it probably depends on the position of the shot. The probability that sensations of pain cease only after the death of the ganglion cells due to lack of oxygen cannot be excluded.

Considering the above facts, it is clear that the EEG alone does not give a clear picture of the state of consciousness and

death. Other reliable criteria are needed for the establishment of these facts (140, 151).

Conclusions

The electroencephalogram provides information on the activity of the central nervous system. While the carotids are clamped the animal does not lose consciousness, but significant changes may be seen on the EEG. After the carotids are severed significant changes are seen on the EEG even during the first seconds. Alpha waves of wakefulness change into beta and gamma waves which are similar to those found during anaesthesia.

Brain potentials may be registered for some time after *shechita,* but these may be found even after a bolt shot and in isolated heads of decapitated animals. EEG recordings may be used as a sign of death, but these must be evaluated and compared with other criteria.

Chapter XI

REACTIONS OF THE RESPIRATORY SYSTEM TO SHECHITA

In order to evaluate the vital functions, the reaction of the respiratory system must also be considered. As mentioned in Chapter IV, a resting period takes place after *shechita*. During this period respiration stops, but later it is resumed and the respiration is slower and deeper. Some lay persons as well as clinical observers regard this as a sign of "air hunger" (114).

In experiments the carotids of rabbits were severed, and immediately there was a deepening and slowing of respiration. This lasted 30—60 seconds, followed by a resting phase lasting 60—90 seconds. After that only single gasps could be observed (see Fig. 27). The explanation for this type of respiration is that *shechita* causes a large gap in the vascular system. Oxygenated blood flows out through the carotids and the body attempts to compensate for the lack of oxygen and respiration deepens. This is a reflex phenomenon.

On the other hand, when the femoral arteries are cut the gap in circulation is not so large, and therefore the collapse of circulation occurs later. The following was observed during experiments. Immediately after cutting the femoral arteries respiration was intensified and then gradually decreased in depth and frequency. After 2 or 3 minutes there was a pause (arrest) of the same duration as that noticed in the experiments with the carotids severed. Other phenomena were similar to those in the experiments with the severed carotids. Exact data are presented in Fig. 27.

Control of respiration in the body is a complicated process (159), which is controlled by the central nervous system and is influenced by both voluntary and reflex actions (135, 158) regulated by different parts of the brain, such as the medulla

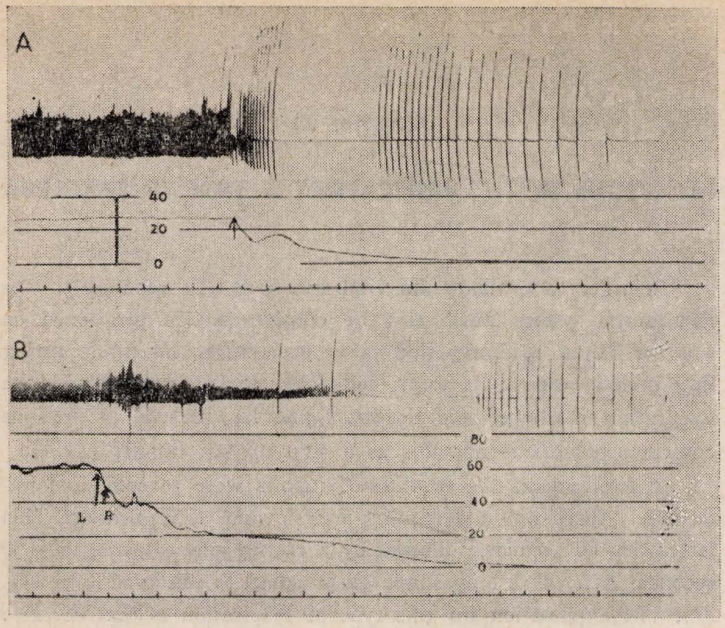


Fig. 27. *Effect of bleeding on respiration, in the rabbit (Levinger 91).*
A. severance of carotids, B. severance of femoral arteries. In each experiment the changes in blood pressure were also registered. Note that all the changes were delayed during bleeding through the femoral arteries.

oblongata and other centers of the brain stem. One of the reflexes which control respiration depth is the Hering-Breuer reflex (58). The normal effect of this reflex is through the vagal nerve, the cutting of which results in a deepening of respiration (154). But bleeding has a further effect on respiration. In the process of *shechita,* both actions have their influence, i.e. severing the vagal nerves and also bleeding. But while the cutting of vagal nerves has an immediate effect, the effect of bleeding may be noticed only after the resting phase.

Whichever is the correct explanation, it is clear that both mechanisms — decrease of vagal tone and hypoxic stimulation —

are entirely reflex actions and are completely independent of conscious feeling. Investigations in ruminants indicate that conditions in these animals are similar to those in rabbits. Table 3

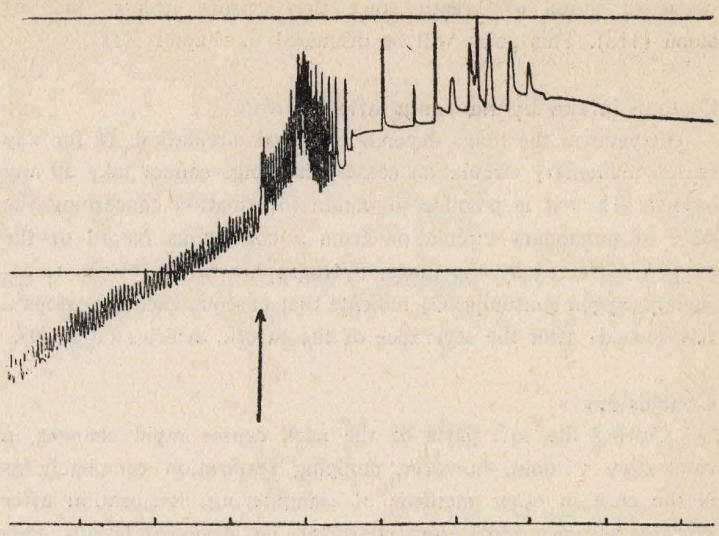


Fig. 28. *Spirogram of sheep (Prot. No. 5/60) immediately before and after shechita (Levinger 91)*

The interval between the two horizontal lines corresponds to an oxygen intake of 1 liter. Immediately following section of the neck or the opening of the carotids, the respiratory movements increase and for about 1 minute the spirogram is still rising. This does not, however, imply that during the whole of this time oxygen is being used effectively, because even after the cessation of the gaseous exchange in the lung there is still some gas in the spirograph which has not yet passed the CO_2 absorption vessel and thus still contains CO_2. It takes about one minute for the complete absorption of this gas. During this time the spirogram still rises. We assume on the basis of the obtained spirograms that already a few seconds after the opening of the carotid arteries the gaseous exchange in the lung also ceases. This assumption cannot, however, be proved because of the inertia of the apparatus used. In order to elucidate this question definitely a recording apparatus would be required which could determine the O_2 or CO_2 content of the respiratory air without latent period. Unfortunately we did not have such an apparatus at our disposal.

gives the data on the onset and cessation of deepened respiration in cattle.

It may be noted here that meat hygienists highly value the deepened gasps of breath since they ensure greater loss of blood (118). This point will be discussed in chapter XIII.

Oxygen intake by the lungs after *shechita*

Oxygen in the lungs depends on blood circulation. If for any reason pulmonary circulation ceases, the lungs cannot take up any oxygen. Thus it is possible to obtain information concerning the state of pulmonary circulation from a continuous record of the oxygen extracted by the lungs. Spirographic investigations (measuring oxygen consumption) indicate that gaseous exchange stops a few seconds after the severance of the carotid arteries (Fig. 28).

Conclusions

Cutting the soft parts of the neck causes rapid changes in respiration without, however, stopping respiration completely as is the case in other methods of slaughtering. Respiration after *shechita* assumes a different character, i.e. gasps of breath. Persistence of respiration during bleeding increases the loss of blood which appears to have advantages from the point of view of meat hygiene.

Chapter XII

SHECHITA AND ANIMAL PSYCHOLOGY

According to some authorities the animal suffers more from fear than from physical pain (139). It is therefore necessary to study the possibilities of frightening the animal during the process of slaughtering and especially during *shechita.*

The question of psychological pain is a complicated one, for even in man there are wide individual differences and reactions may vary. In animals it becomes more difficult, since there is no possibility of communication to get precise information. Generally it may be said that the animal does fear and does suffer (139), since reactions are different under different circumstances. However, not every situation that arouses fear in man causes fear in the animal, nor is the animal frightened by situations that would frighten man. In the present chapter some answers will be sought to the most important questions of frightening the animal during the *shechita* process, keeping in mind the following pertinent questions:

1) Do animals — in this case ruminants — realize what death or slaughter is?
2) Do animals understand or sense the danger of approaching death?
3) Do animals suffer mentally or physically during or after *shechita?*

Behavior of animals in the presence of slaughtered animals

Some authors contend that the animal suffers during preparations for *shechita* because it realizes that death is near (75), while others report that the animal is indifferent to death (61). It is a known fact that leading horses into the slaughter yard is often

difficult, but such incidents are hardly known to happen with cattle. Four situations will be described to illustrate the behavior of animals during *shechita.*

1) Eight sheep were driven into the slaughter yard. Although Jewish law provides that animals must not be slaughtered in the presence of another live animal (73f), the sheep were driven directly to the slaughterer. One after another the animals were slaughtered in the presence of the living ones, but no attempt to escape was noted in any of the animals standing by (91).

2) Some calves were being slaughtered. One calf which did not belong to the group was included by mistake. It was left to run around free in the slaughter yard. The surroundings at first appeared somewhat strange to the calf, but it quickly got used to the environment and ran around unconcernedly without making any attempt to escape, although the gate was open (91).

3) When animals were left alone in the slaughter-house they lay down and began to ruminate, even though slaughtered animals were being skinned in front of them. Since it is a known fact that frightened animals do not ruminate, it may be concluded that these animals did not suffer from fright.

4) A bull was driven into the abattoir with slaughtered animals about. The bull made an attempt to copulate with a cow already slaughtered (101). It is a known fact that bulls that are separated from the flock will attempt to copulate with any other cattle and even with models, whereas under normal conditions they copulate only with cows during oestrus.

From the above mentioned cases it may be concluded that sheep and cattle do not realize the approach of death and do not suffer from the "idea" that death is near.

Is the animal "aware" of the shechita knife as such?

The *shechita* knife according to Jewish law must be twice as long as the width of the neck of the animal to be slaughtered: accordingly, the blade of the knife for cattle reaches a length of 40 cm (45, 91). In contrast to other methods of slaughter such as the bolt, electrical stunning, or stunning by gas, the instrument of

kosher slaughter cannot be hidden. The question is, does the animal realize the use of such an instrument?

The following experiment may answer the question. A blood stained slaughtering knife was shown to a number of animals. Most of them paid no attention at all, while one animal drew close and licked the blood from the knife. It may therefore be assumed that animals do not fear the knife. A man, realizing the danger such a knife poses, fears it, but animals do not realize the purpose of such an instrument (91).

Does the animal suffer from casting?

The casting problem has been discussed in Chapter III. Here it should be mentioned that animals may suffer from being placed into an abnormal position (139). Immediately after being placed into such position the animal tries to correct its position. On the other hand, it was found that animals react to pain stimulus in an abnormal position to a lesser degree than they do in the normal position (92).

Casting itself must be seen as an unnatural situation which can even be painful (8). In veterinary practice animals are casted for medical purposes and are brought into unnatural positions. The casting of horses for castration or the casting of cattle for the amputation of their hooves are common practice in veterinary medicine. These castings are not always carried out under ideal conditions. In the case of *shechita* it is possible to control the casting method and do it in the best possible way.

Moreover, when the animal is put into an abnormal position it receives a shock-like effect. Frei (44) showed that the shock may be divided into two stages: the stage of the shock and the stage of recovery or adaptation. The first stage lasts some seconds and the animal has to be slaughtered during that period. The quicker the casting, the longer the first stage of the shock reaction lasts.

It has been demonstrated that with the new casting techniques *shechita* can be performed within 10 to 15 seconds after casting. In no other surgical operation in veterinary medicine can such an ideal situation be achieved.

Does the animal feel pain during shechita?

Regarding pain perception one must rely on analogies. Pienetesau (124) writes: "Cattle are generally little sensitive to pain, they demonstrate their reaction to pain only weakly and indistinctly". It is therefore difficult to determine pain by the symptoms caused by pain. On the other hand, each animal reacts to stimuli causing pain. Every animal makes defensive movements when pain or a frightening stimulus is applied. Such observations necessitate the definition of pain-causing stimuli.

In practice it may be observed that when a bovine animal suffers pain it will try to defend itself. But observations in *shechita* do not show any defensive reaction. In any other injury immediate defensive movements follow, while in *shechita* a resting phase follows the cut. The possibility that the animal becomes paralyzed and therefore does not react may be ruled out, since the standing animal remains standing for a few seconds after *shechita.*

From the observation of human beings it is known that a person may cut himself with a very sharp instrument without being aware of it, until his attention is turned to the cut. He begins to feel pain only after a latent period or when the edges of the wound start to irritate the nerve endings.

It is very likely that similar conditions are present in the animal (69, 89). The *shechita* wound is wide open in the recumbent animal so that the wound edges cannot rub on each other (91, 144). Friction of the wound edges begins only with the movements after the resting phase. By that time the brain has lost its capacity to function.

This theory is based on an analogy with observations upon human beings. However, if one considers that animals are probably less sensitive to pain than man, this deduction is even more valid (88, 135).

Does the animal suffer after shechita?

It may be stated without a doubt that the animal does not suffer after *shechita.* By the time it might become "consciously" aware of the situation, the activity of the brain is so very limited that the animal is incapable of appreciating the situation.

Conclusion

An animal is incapable of sensing approaching death and therefore it is unable to fear or suffer from the danger of death. It is likewise unable to recognize the instrument of slaughter as such. It may be stated with the utmost probability that an animal does not suffer physically or psychologically before, during, or after *shechita*. The process of pain perception requires a given amount of time, but by that time the activity of the brain has been greatly impaired if not completely paralysed.

Chapter XIII

SHECHITA AND MEAT HYGIENE

In evaluating *shechita* as a method of slaughtering, meat hygiene cannot be neglected. As mentioned before, the protection of animals is logically inconsistent with slaughter, for it is impossible to protect the animal and at the same time shoot it down for the purpose of eating it. However, since man is in need of food, the principle of animal protection has been set aside. But there should be no unnecessary cruelty to animals. Providing a good quality meat for human consumption is an important principle in protecting the animal, since poor quality meat may necessitate further slaughter to replace the meat that is thrown away.

The fact that blood tends to disintegrate quickly is important in meat hygiene. The quality of meat depends on the amount of blood that was extracted from it. The present chapter deals with the blood flow after *shechita* in comparison with other methods of slaughtering.

Various experiments were carried out during the years 1890—1910 to determine the degree of exsanguination by different methods of slaughtering. Some of the results are presented in Table 14 and explained. Goltz (50) measured the yield of blood in relation to live weight. His experiments (Table 14A) show that in practice *shechita* may be equated with the cut in the neck. These methods are preferable in slaughtering grown cattle and less advantageous than the pole axe method in slaughtering calves.

Dembo (30) experimented with rabbits, killing three of them each by a different method. The results are shown in table 14B.

He evaluated his findings as follows: The amount of blood lost is markedly higher through the *shechita* method. The experiments are of little significance since the results obtained from

Table 14

Blood amounts, in percent of live body weight, obtained by different methods of slaughter

A. Goltz's experiments

Animal species	Shechita	Neck cut with shot mask	Hit on head with pole axe and knife stab in breast
calves	4.91	4.90	5.07
cattle	3.24	3.20	2.80

B. Dembo's experiments

Animal species	Shechita	Pole axe	Bolt shot
rabbit	4.0	2.5	1.7

C. V. Falk's experiments

Animal species	Shechita	Pole axe plus cut in neck	Pole axe plus stab in breast
oxen, bulls	3.7	3.4	4.1
heifers, cows	4.5	4.5	5.5

D. Hoth's experiments (in cattle)

Animal species	Shechita	Pole axe	Bolt plus stab in medulla oblongata	Bolt
oxen	3.60	3.61	3.55	3.24
cows	4.07	4.18	3.59	3.39
bulls	3.56	3.85	3.28	3.24

E. Hoth's experiments (in sheep)

Animal species	Shechita	Cut through the neck without previous stunning	Pole axe and cut of the neck
sheep	4.45	4.50	4.43

rabbits cannot be applied to other animals, and also because no conclusive results can be obtained from an experiment on a single animal. However, it should be mentioned that at the time it was of great importance, for as a result of these experiments, many butchers insisted on the *shechita* method. But since it was performed by unqualified persons, it not only resulted in a smaller yield of blood but caused unnecessary cruelty to the animals (120).

In v. Falk's (37) experiments (Table 14C) *shechita* seemed somewhat more advantageous than cutting the neck after stunning, but less advantageous than stunning and a stab in the breast.

Hoth (68) reported that he found larger quantities of blood in methods of slaughtering without prior stunning than in methods requiring prior stunning (Table 14D—E).

It may be stated that Goltz and v. Falk when comparing the cutting of the neck with *shechita,* find approximately the same results, with *shechita* being somewhat better.

Hoth prefers the method of slaughtering in which the brain is not destroyed. Accordingly, the use of the pole axe plus a stab in the breast of cattle is more advantageous than *shechita,* while *shechita* produces better exsanguination results than the pole axe method in calves. Goltz agrees with Hoth regarding cattle, while v. Falk prefers the breast stab for all animals.

Differences in the results found by Goltz, Dembo, v. Falk, and Hoth must be ascribed either to different techniques of slaughter or different conditions of the animals or both. One must remember that blood volume varies with age, state of nutrition, fat content of the organs, pregnancy, and lactation. Distribution of blood in the body and blood pressure are also factors in the amount of bleeding. The time interval between stunning and bleeding is an important factor in these experiments. It is possible that all of these factors play a part in these investigations.

Levinger (91) took the above factors in consideration in his experiments on eight rabbits. The rabbits were anaesthetized and then bled to death in various ways. The results are presented in table 15. From these experiments the following conclusions may be drawn:

Table 15

Bleeding and exsanguination (in percent of bodyweight) in rabbits stunned and bled in different methods (Levinger 91)

Animal No.	Method of stunning	Method of bleeding	75% of blood amount were obtained after (in seconds)	Degree of exsanguination
1	Bolt	*Shechita*	60	2.48%
2	Aether narcosis	*Shechita*	40	3.24%
3	Aether narcosis	*Shechita* (not correctly performed)	30	2.04%
4	Local anaesthesia	*Shechita*	15	2.67%
5	Thiogenal narcosis	Section of carotids	55	3.14%
6	Thiogenal narcosis	Section of carotids	120	2.10%
7	Thiogenal narcosis	Puncture of carotids	60% in 8 min.	2.13%
8	Bolt	*Shechita* after 5 min.		worse

1) The more quickly exsanguination follows stunning, the better the bleeding results.

2) The more rapid the flow, the better the exsanguination.

3) There are always individual differences and variations.

Radan (126) used a different approach to determine exsanguination. He does not rely on measuring the yield of blood, but on the blood content of the meat as determined by chemical analysis (127). The method has great advantages, since it need not interfere with work of the slaughterers, nor need it be done in the slaughter area. Radan experimented with 80 animals in pairs which were equated for age, health condition, transportation to the abattoir, etc. One of each pair was slaughtered by the *shechita* method in a Weinberg casting pen, while the other was killed by the bolt pistol stunning method. The chemical analysis of the blood content was done on scrapings from the musculus extensor carpi radialis. These tests were applied in a more and a less sensitive methods. The animals were classified according to grade of exsanguination, and the results are shown in table 16.

Table 16

Quality of exsanguination, according to Radan's findings. The values represent percent of animals tested.

1. The more sensitive method

Method of slaughter	Very good	Less satisfactory bleeding
Shechita	75.0	25.0
Bolt	10.0	90.0

2. The less sensitive method

Method of slaughter	Very good	Less satisfactory bleeding
Shechita	87.5	12.5
Bolt	27.5	72.5

Radan explains the results he obtained as follows:

1) There is a certain interval between stunning and bleeding of the bolt shot animals.

2) According to Miller (118), the gasping movements some time after *shechita* make for better exsanguination, because the muscle contractions occur towards the end of bleeding, forcing the remaining blood out of the vessels.

Conclusions

1) Testing the quality of meat should be done objectively and without interfering with the slaughtering process.

2) Quantitative estimation of the blood content in the meat is a more reliable measure than weighing of the blood and comparing it with live weight.

3) Size of the wound in the circulatory system and the velocity of the blood flow are of importance in exsanguination.

4) Deep respiratory movements and muscle contractions occurring after *shechita* improve exsanguination.

5) Bleeding should follow stunning as quickly as possible. Since in *shechita* bleeding and stunning coincide, therefore *shechita* from the point of view of exsanguination is the ideal method of slaughtering.

Chapter XIV

COMPARING SHECHITA WITH OTHER METHODS OF SLAUGHTERING

The various methods of slaughtering currently in use may be divided into two groups: a) Methods in which the brain tissue is destroyed, and b) methods in which the brain function is stopped by other means, while the brain tissue is not directly destroyed. Generally, the methods of slaughtering may be divided into systems where the animal is stunned before slaughter and bleeding, and methods where the animal is killed before bleeding without stunning. The methods presently in use are as follows:

STUNNING BEFORE BLEEDING (90)

Electrical shock (20)

Administering an electrical shock is the most common method of slaughtering pigs and poultry (138). The possible use of electro-shock before *shechita* has been discussed, but there are a number of reasons for not using this type of preparation for *shechita* (121, 155).

Electro-shock has been widely used in human therapy in order to produce loss of consciousness. But there are differences of opinion as to the question of pain during therapy. According to some the process is a very painful one, while others report that it is absolutely painless. The same clinic may report both results. The reason for the variation may be explained by the fact that electro-shock is painful, and therefore in wide use for applying pain both in medical and laboratory experimentation. But in most cases the patient loses his consciousness, before he feels the pain.

To use electro-shock in *shechita* is not practical for a number of reasons. To begin with, conditions in the slaughterhouse are not

like those in a clinic. There are many animals that have to be slaughtered and therefore there cannot be good individual control. According to Jewish law the animal must be alive before slaughtering, whereas electro-shock may kill the animal before *shechita.* Another difficulty is the fact that in the process of slaughtering much water is used and the use of high voltage could be dangerous to the workers at the abattoir.

Moreover, since, as has been shown, *shechita* does not cause pain to the animal, it is questionable whether any preparation, which may be painful, should be applied before *shechita.*

Anaesthesia by drugs

Theoretically the use of chemical agents for anaesthesia either through a mask or by injection, may be used prior to *shechita.* But practically this must be excluded, because the meat for consumption by human beings must be prepared without the aid of chemicals. It was found, for instance, that animals — especially poultry — that were injected with hormone products caused severe complications in people who ate the meat of such animals. In many countries such additives are forbidden by law.

To use drugs shortly before bleeding is even more dangerous, since the drugs are absorbed in the meat and are unmetabolized and not excreted. No drug is known to affect the animal and guaranteed not to affect man. Since the aim of slaughtering is to produce the best quality of meat, the use of drugs before slaughter must be excluded.

Stunning by gas

Gases such as CO_2 have been used recently to stun animals before slaughter (49). The method is to force the animal into an atmosphere containing an abnormal concentration of gas. The animal breathes in the gas and loses consciousness. The procedure takes 10 to 20 seconds. Physiological observation during anaesthesia by CO_2 gas shows greater muscular activity, therefore the possibility that the animal suffers during that time is not excluded. Workers who accidentally fell into the tunnel and were stunned, reported that they felt no pain. However, the method has

to be studied further, before it can be fully evaluated. Particularly it is important that the animal be alive before *shechita,* and that must also be proved in each case, which is impossible.

METHODS OF SLAUGHTERING THE ANIMAL

The Bolt

The most common method of slaughtering animals is the bolt shot into the brain which destroys the medulla oblongata. This shot destroys the centers of respiration, blood pressure, and the main connections of the brain with the periphery. The animal drops to the floor immediately. Whether the animal feels pain is not clearly established. In many cases the animal does not die immediately after the shot. Hegglin (57) reports cases of suicide by bolt shot, where people remained alive for many hours after the shot. In one case a man remained alive for 17 hours after the shot.

EEG recordings (91) in animals after a bolt shot persisted for a few minutes after the shot. It is questionable whether the centers of pain remain intact after the shot. It may depend on the exact location of the shot in the cortex of the brain.

The Pole Axe

In principle, the same criticism given the bolt shot may be applied to the pole axe method of stunning before slaughter. In practice this method is less effective than the bolt shot and should therefore be avoided. Certainly, it cannot be applied to animals that are to be slaughtered by *shechita.*

Pithing of the Medulla Oblongata

In earlier times pithing the medulla oblongata was performed on the animal for slaughter. This was done by a prick in the atlanto-occipital foramen (between the head and the neck). By this method the connection between the brain and the rest of the body was destroyed. In this operation the animal immediately drops to the floor and respiration stops. Its influence on blood pressure depends on the point at which the intervention is made. Since it is very difficult to find the exact point for intervention,

and it has to be repeated two or three times in many cases before it is effective, this method is no longer used.

Failure in slaughtering

In nearly every method of stunning and slaughtering a number of failures occur. An animal may receive too low an amount of electricity, or some animals may prove to be stronger than others, and thus are not stunned. The animal may move and the bolt shot fails to hit the right spot. In the other methods of stunning even more accidents occur.

Kunkel (85) wrote that *shechita* must be regarded as an inhumane method of slaughtering, because cuts occur in which the carotids are not severed. That argument is hardly convincing, since it has been proven that such failures are less than 1 per cent of *shechita* cases. This percentage is far lower than failures in other methods of slaughtering.

Chapter XV

SYNOPSIS AND EVALUATION OF SHECHITA AS A METHOD OF SLAUGHTER

Synopsis

1. *Shechita* is the method of slaughter by which animals should be slaughtered according to the Jewish law.
2. *Shechita* must be carried out on a living and healthy animal.
3. In *shechita* the central nervous system is not directly destroyed.
4. During *shechita* the soft parts of the neck, including trachea, oesophagus, carotid arteries and jugular veins, are severed; the spinal cord and the vertebral arteries and veins remain intact.
5. The main arterial blood supply to the brain comes from the internal maxillary artery, which gets its blood supply mainly from the carotids, and partly through an anastomosis between the vertebral and occipital artery. This latter connection is normally maintained to supply blood to the vertebral artery, but during occlusion of the carotids it serves to supply the brain with arterial blood.
6. During ligation of the carotids, the brain receives blood through the occipital-vertebral anastomosis.
7. During ligation of the carotids and the occipital arteries, the brain gets no arterial supply and thus the animal dies.
8. After *shechita* blood pressure falls rapidly. The fall in blood pressure is more rapid in the internal maxillary artery than in other parts of the brachiocephalic trunk, and more gradual in other parts of the circulatory system.
9. Within 5 to 6 seconds, the blood pressure in the whole body drops steeply und thus cannot supply the body tissues.

10. Immediately after *shechita* no flow of blood can be measured in the internal maxillar artery.
11. Accordingly, no arterial blood supply reaches the brain immediately after *shechita.*
12. The pressure measured in the brain ventricles drops even more rapidly than in the maxillary artery. This is caused by outflow through the jugular veins, without replacement by arterial blood.
13. The drop in pressure in the brain causes an immediate shock in the slaughtered animal.
14. Immediately after *shechita,* the electrical brain potentials lose their normal character, but continue for some time.
15. In every method of slaughter, even by destruction of the brain, electrical brain potentials continue to be recorded.
16. The capacity of the brain to function is very rapidly reduced, especially in cortical areas.
17. The perception of pain is greatly reduced by the clean cut and by the distraction of the animal.
18. By the time a painful impulse reaches the brain, it is hardly capable of functioning any more.
19. It is very difficult to determine exactly the pain perceptibility of animals, especially in abnormal positions.
20. Within 8 to 10 seconds after *shechita* the equilibrium center in the brain loses its regulatory function in the standing animal.
21. In the recumbent animal and in standing animals in which the neck is stretched, bleeding is undisturbed. Thus anoxia of the brain might occurs even earlier.
22. Pain perception is in the cerebral cortex loses its function before the centers of equilibrium which are in the cerebellum.
23. The corneal reflex shows individual variations. It disappears in small ruminants earlier than in cattle.
24. Immediately after *shechita,* there is a motor resting phase. Motor movements resume in all cases 10 seconds or more after the cut.
25. Activity of the heart and ECG potentials can be recorded for a longer period after the cut.

26. Immediately after *shechita* deep breathing is observed. Then follows a resting phase followed by another period of single deep breaths. At the period of deep breaths no oxygen intake by the animal could be recorded.
27. The degree of exsanguination is optimal in *shechita.* Heart activity and deep respiratory movements assist in the expulsion of blood from the animal body.
28. The animal is not aware of death and the killing instrument as such.
29. Psychologically the animal does not suffer pain before, during, or after *shechita.*
30. Any method of slaughter is cruelty to animals.
31. In comparison with other methods of slaughter, *shechita* is at least as humane as any other method of slaughter.

Evaluation of shechita as a method of slaughter

Today a method of slaughter is being sought which will, with certainty, eliminate pain perception in the animal and. at the same time, ensure good exsanguination.

Shechita, if it is correctly carried out without previous stunning, represents a method which complies with these postulates.

Brain function is eliminated, and ceases very rapidly, whereas heart function ceases only later, thus ensuring a high degree of exsanguination.

For *shechita* to be carried out properly and to conform with the postulates of animal defense, the following points must be observed:

1. *Shechita* may only be performed by a trained person (18) who must carry out the following procedures conscientiously:
   a) The cut must be made immediately after casting.
   b) The person must have suitable, sharp and sufficiently long instruments, so that there will be no difficulties in performing the cut.

c) He must be acquainted with the anatomical relationships in the neck region, to assure that all blood vessels will really be severed.

d) He should perform his first acts of slaughter, experimentally, on dead or stunned animals.

2. The casting of the animal should be carried out with the aid of suitable apparatuses. The quicker the casting process and the sooner the cut will follow, the better for the animal.

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IV

historic and legal documents

A. Documents concerning the permissibility of shechita in Germany.

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THE FOODPIPE CLAMP

During World War I, animal blood was used extensively in Germany in the production of food for human consumption. Blood from animals slaughtered by the throat-cut method was unsuitable for such purposes, because it would become contaminated by food spurting from the animal's foodpipe into the blood. The Germans, therefore, prohibited throat-cut slaughtering, but made an exception in the case of *shechita* in view of the religious principle involved. The government's reasoning was explained by the Reichs Chancellor:

"There is no intention to prohibit Jewish *shechita* as well. Preserving for human use that blood which is now lost as a result of the Jewish ritual *shechita*-cut is not of such vital importance as to justify ignoring the religious oppression of orthodox Jewish fellow citizens and invading the statutes of a recognized religious community in Germany with penal laws."(1)

In anticipation that the worsening food situation would lead the Germans to abrogate a special exemption for *shechita* and thus endanger the practice of *shechita* altogether, the "Central Office for *Shechita* Affairs" had undertaken to investigate methods whereby the blood outflow resulting from *shechita* would not be lost to those wanting to utilize it. Under the direction of the "Central Office" a special clamp was designed which could be applied to the foodpipe immediately after the *shechita*-cut so that the blood would remain free of contamination. The German government approved of this method and ordered its implementation (see below), thereby once again, by implication, demonstrating the Government's acceptance of the *shechita* method of slaughtering.

1. Reichstags Drucksachen der 13 Legislatur Periode, II. Session 1914/1917, No. 1039.

Berlin W.9, May 2, 1916
Leipziger Platz 10.

General Regulation No. 1.40 1916.
Ministry of Agriculture, Estates,
and Forests

Journal No. I A. III e 910 M. f. L
M. 5923 M. d. J.

Detail of the Law of Meat Inspection
(home slaughter)

To all Regierung-Presidents and Police-Presidents

In partial change of par. 3 of the regulation of May 17, 1911 (L. M. Bl. S. 143) we order hereby, with the consent of the Reichskanzler, that the *blood of animals killed by cutting the throat (Shechita),* if there is no other objection, is to be considered as fit for consumption, if the foodpipe-clamp is put on in time at the bleeding and the proper application is suitably supervised. Blood to be used for human consumption may be taken only after the foodpipe-clamp is secured in position. The persons authorized as to inspection (veterinarians, meat inspectors, foremen, etc.) have to give special attention to this.

We request that the above be put into action.
for The Minister of Agriculture,
Estates, and Forests
Graf von Keyserlingk

for The Home Secretary
Finger

Translation

Unter Bezugnahme auf unser letztes Rundschreiben bringen wir die inzwischen veröffentlichte Ministerialverfügung betreffend Verwendbarkeit des Blutes geschächteter Tiere zur Kenntnis.

Geeignete Schlundzangen können bei sofortiger Bestellung durch uns bezogen werden (M. 3.— pro Stück).

Berlin, Anfang Juni 1916.

BÜRO FÜR SCHÄCHTSCHUTZ.
Dr. E. MUNK. *F. STRUCK.*

Allgemeine Verfügung Nr. 1.40/1916.

MINISTERIUM
für
LANDWIRTSCHAFT, DOMAENEN u. FORSTEN

Berlin W. 9, den 2. Mai 1916.
Leipziger Platz 10.

Journal Nr. I A. III e 910 M. f. L
M. 5923 M. d. J.

Ausführung des Fleischbeschaugesetzes
(inländische Schlachtungen).

An
die sämtlichen Herren Regierungspräsidenten und den Herrn Polizeipräsidenten
hierselbst.

In teilweiser Abänderung der Ziffer 3 des Runderlasses vom 17. Mai 1911 (L. M. Bl. S. 143) bestimmen wir hierdurch im Einvernehmen mit dem Herrn Reichskanzler, daß das Blut, der durch Halsschnitt (Schächtschnitt) getöteten Tiere, sofern ein anderer Beanstandungsgrund nicht vorliegt, bis auf weiteres als genußtauglich zu behandeln ist, wenn die Schlundzange bei der Blutentziehung rechtzeitig angelegt und die ordnungsmässige Anwendung der Schlundzange in geeigneter Weise beaufsichtigt wird. Das zum Genuß für Menschen bestimmte Blut darf erst aufgefangen werden nachdem die Schlundzange sicher angelegt ist. Hierauf wird von den mit der Beaufsichtigung betrauten Stellen (Tierärzten, Fleischbeschauern, Hallenmeistern usw.) besonders zu achten sein.

Wir ersuchen hiernach das Erforderliche gefälligst zu veranlassen.

Der Minister für Landwirtschaft,
Domänen und Forsten.
Im Auftrage:
Graf von Keyserlingk.

Der Minister des Innern.
Im Auftrage:
Finger.

PROMULGATION CONCERNING SHECHITA 1917

Subsequent to the approval of the Foodpipe Clamp by the German Government (see previous chapter), a Bundesrat decree of June 2, 1917 made allowance for the unhampered practice of *shechita* during the war by issuing the following

Promulgation (No. 5872) Concerning The Slaughtering of Animals

The Bundesrat on the basis of Par. 3 of the Law of Aug. 4, 1914, empowering the Bundesrat to regulate the economy etc. (Reichsgesetzblatt p. 327) has issued the following order:

Article I

In the slaughtering of cattle, including calves, sheep and goats, the throat-cut (*Shechita*-cut) may be employed only at ritual slaughtering by the ritual slaughterers designated for the purpose. In any other case the throat cut is prohibited. In emergency slaughtering, at which the employment of a slaughterer is not possible, the prohibition of Par. 1 is not applicable.

Article II

Violations of this order are punishable by imprisonment up to six months and by a fine up to 1500 Marks, or by either of these punishments.

Article III

This Order goes into force on the day of its promulgation. The Reich Chancellor shall set the date of its expiration.

Berlin, June 2, 1917.
The Deputy Reich Chancellor

Dr. Helfferich.

On April 11, 1922 the President of the Reich Department of Health confirmed, in response to an enquiry by Rabbi Ezriel Munk, that the regulations of the Prussian Ministry of Culture and Interior are still operative. Accordingly, blood from animals slaughtered by *shechita* is considered fit for consumption provided that a food-pipe clamp is properly affixed. In effect, this letter thus confirms official sanction of *shechita* at that time.

RGA a)

Abschrift.

Der Präsident des Reichsgesundheitsamts.

Berlin N.W.23, den 11. April 1922, Klopstockstr. 18.

Geschäftsnummer III 755/22.

Auf Ihre gefällige Anfrage vom 7. d. Mts. J.N.736/22 beehre ich mich mitzuteilen, daß die Verfügung des Preußischen Ministers für Landwirtschaft usw. und des Innern, betreffend Ausführung des Fleischbeschaugesetzes (inländische Schlachtungen) vom 2. Mai 1918 (Ministerialblatt für Landwirtschaft usw. S. 143) noch zu Recht besteht.

Hiernach darf das Blut der durch Halsschnitt (Schlachtschnitt) getöteten Tiere, sofern ein Beanstandungsgrund nicht vorliegt, als genußtauglich behandelt werden, wenn die Schlundzange bei der Blutentziehung rechtzeitig angelegt und die ordnungsmäßige Anwendung der Schlundzange in geeigneter Weise beaufsichtigt wird.

gez. Dunz.

Das vorstehende Abschrift mit der Urschrift wörtlich übereinstimmt wird hierdurch beglaubigt.

Berlin, den 11. April 22

Der Polizeipräsident. Polizei-Hauptwachtmeister.

Polizei-Präsidium Berlin 2. Polizei Revier

An

Herrn Rabbiner Dr. E. Munk

Berlin.

STATEMENT OF THE REICH HEALTH DEPARTMENT ON SHECHITA LEGISLATION, 1926 *

Berlin, 19th February 1926

President of the Reich Department of Health.
Reference Number: III 26/26.
To the Reich Minister of the Interior
Re: Decree of 4th January 1926
— II 11562/25 A —
Subject: Ritual Slaughter.

With four enclosures.
Report by Regierungsrat Dr. Mayer.

In a Note dated 18th December 1925 the Royal Norwegian Embassy in Berlin requests information as to whether ritual slaughter is forbidden in Germany and whether there exist in Germany special stipulations with regard to the practice of ritual slaughter.

In reply to this enquiry the Reich Department of Health has to report as follows:

Shechita, i.e. slaughter according to Jewish ritual, is *not* forbidden in Germany. An Order enacted for the German Reich by proclamation of the Reich Chancellor dated 2nd June 1917 (Reich Law Journal p. 471) on the slaughter of animals states (in par. 1) that in slaughtering cattle, including calves, sheep and goats, the method of cutting the throat (the *shechita* incision) may be employed only in ritual slaughter and by persons duly appointed for this purpose. Apart from this exception, slaughter by cutting the throat is forbidden. The admissibility in Germany of *shechita* as a ritual act performed upon the appropriate animals is hereby expressly confirmed.

Proposals to introduce a measure forbidding ritual slaughter have repeatedly occupied the time of the German Reichstag in past years. In particular, the question of *shechita* was discussed in detail in the year 1899, when a motion in the names of Liebermann, von Sonnenberg and others concerning the stunning of animals

* Translated from German.

before slaughter was proposed and discussed (Reichstag Papers no. 70 — Appendix to vol. 1 of Reichstag Proceedings 1908/90 p. 283 and Reichstag Proceedings of 9th May 1899, shorthand report pp. 2095ff). This question was further mentioned in 1911, when a debate took place on the drafting of an additional clause in the Penal Code (Reichstag Proceedings of 23rd April 1909, shorthand report pp. 8130 and 8144, and 12th January 1911, shorthand report pp. 3807—3831). In neither case was any definite conclusion reached, but from the course of the discussion it is evident that the overwhelming majority of the Reichstag were not disposed to prohibit *shechita* on account of considerations of toleration towards the Mosaic religion.

The main reason formerly alleged for the proposed ban on ritual slaughter was that it involved cruelty to animals. The number of expert opinions adduced in support of both a positive and a negative answer to this question is extraordinarily large. In particular, the Committee for Rebutting Antisemitic Attacks published in 1894 a collection of relevant expert opinions available in print ("Expert Opinions on Jewish Ritual Slaughter," Berlin, pub. Emil Apolant, 1894). Furthermore, the executive of the Independent Union for promoting the Interests of Orthodox Jewry has, in November 1910, addressed to the legislative bodies of the German Reich a printed memorial with a comprehensive memorandum on the *shechita* question and on 11th January 1911 distributed a printed supplement to it. The latter contains also a collection of views on Jewish ritual slaughter *(shechita),* including an expert opinion of the former Royal Prussian Scientific Delegation for Medicine, which describes the prohibition of *shechita* as unnecessary. In this publication there is also a reprint of the official announcement by the Government of Saxony giving the reasons why the ban on *shechita,* proclaimed in the Kingdom of Saxony in 1892, had been rescinded in December 1910.

There are no uniform rules in the German Reich concerning the practice of *shechita;* such regulations are entrusted to the individual states. Directives on this subject, mainly for the preven-

tion of cruelty to animals, have been promulgated by a few Land governments. In Prussia, for example, the ministerial decree of 14th Jan. 1889, a copy of which is included in the appendix below, was addressed to and adopted by the government; it recommends the general introduction of measures to avoid unnecessary cruelty to animals involved in the Jewish method of slaughter *(shechita)* (Publications of the Reich Department of Health 1889, p. 114).

(Signed): *Bumm.*

STATEMENTS OF THE REICHS HEALTH DEPARTMENT ON THE HUMANENESS OF SHECHITA — 1930 AND 1932 *

The following report appeared in "Deutscher Reichsanzeiger" No. 39 of 15th February 1930 (Report on the Proceedings in the Criminal Law Committee of the Reichstag; Meeting of 2.14.1930):

"A representative of the Reichs Health Department explained in detail that, up to the present time, the Department still holds the view that Jewish ritual slaughter does not involve any cruelty to animals."

The following is an extract from the "Official Minutes of the Meeting of the Thuringian District Legislature" held on 2.18.1930 (printed in its records, Vorlage 1930, No. 98):

"In reply to an enquiry as to whether — as Deputy Landsberg had stated — there existed an expert opinion of the Reichs Health Department to the effect that ritual slaughter could not be described as cruel, Dr. Wehrle (director of the Reichs Health Department) replied that the Department had no particularly new opinion on this question. On the other hand, the Department has in the course of decades, repeatedly rendered expert testimony on this question to its superior authority, the Ministry of the Interior, which, taking into account scientific research following objective consideration of the statements in its possession and using its own judgment, has arrived at the conclusion that slaughtering according to the Jewish ritual, if carried out in the prescribed manner, cannot be considered cruel to animals. This statement applied solely to the slaughterer's incision and to the outpour of blood. The preparations for ritual slaughter might indeed incur cruelty and all possible measures should be taken to obviate this."

The last sentence led to the mistaken inference that the Reichs Health Department had declared only the actual slaughter-incision and the subsequent bleeding of the animal as being free from cruelty, but not the preliminary casting.

* Translated from a memorandum of the "Reichszentrale" of December 14, 1932.

The Reichs Department of Health was requested by the "Bureau for the Affairs of *Shechita*" at the time to advise whether this interpretation of the statement made by its representative in the Criminal Law Committee was correct. The President of the Reichs Health Department acceded to this request in the following written statement (III 1654/30 of 17th June 1930):

> "As was explained to Rabbi Dr. Munk in his interview with Director Dr. Wehrle at the Reich Department of Health, the Department, in its letter addressed to the Berlin Society for the Protection of Animals and dated 1st March 1930 — rel. III 499/30 — had communicated to the Society only the statements presented by Director Dr. Wehrle at the 123rd and 124th meetings of the Criminal Law Committee of the Reichstag on the 14th and 18th February respectively (cf. Reichstag Publications, 21st Committee, 123rd and 124th meetings, issued on 22nd and 27th February 1930). From these statement the opinion of the Reich's Health Department is unequivocally evident. If, in recent literature on the ritual slaughter question, conclusions have been drawn from this communication of the Reich Health Department to the Berlin Society for the Protection of Animals which do not accord with the wording and sense of these statements, such conclusions must be described as erroneous. This being the case, I would not like to go further into the three questions which were put to us by the Bureau for the Affairs of *Shechita* and all of which can be answered by a simple "No".

In reply to an oral request, the wording of the three questions, which was not expressly quoted in the above written statement, was repeated in the following supplementary statement (III 2681) of 8th November 1932:

> "With reference to the conversation held on 7th November 1932 and by way of supplement to the written reply of the Reich Health Department dated 17th June 1930 (III 1654/30) to the Bureau for the Affairs of *Shechita* regarding their inquiry of June 6, 1930, we confirm, in response

to your request, that the three questions referred to at the end of the above-mentioned statement were worded as follows:

1. With regard to the casting procedure, is the stunning (or anaesthesia) of animals prior to the incision in the neck considered to be a pre-condition, failing which ritual slaughter can be described as cruel?

2. With regard to occurrences which may accompany the casting of an animal, is it recommended that stunning or anaesthesia be introduced?

3. Can it be correctly inferred from the statement of the Reich Health Department that irregularities causing pain to animals have been observed only in the case of ritual slaughter and not also in the case of other methods of killing currently employed in abattoirs, such as poleaxing and shooting?

To each of these questions our Department returned a negative reply.

(Signed): *Hamel.*"

The Reich Health Department, the veterinary section of which is conducted by men of great experience in slaughterhouse procedure, has accordingly, as the highest competent authority in the State, expressly declared that

> *both the actual* shechita *incision with the blood outpouring and also the casting of the animal, i.e. the entire process of* shechita *in all its phases does not involve any cruelty to the animal.*

Regarding the procedure to be observed in casting animals for slaughter, regulations have been issued throughout Germany by the District Police or local authorities.

MEMORANDUM ON A RESOLUTION OF THE CRIMINAL LAW COMMITTEE OF THE GERMAN REICHSTAG CONCERNING THE PROTECTION OF SHECHITA IN ITS CRIMINAL LAW DRAFT, 1932 *

The Criminal Law Committee of the German Reichstag has recently been engaged once again in determining penalties for cruelty to animals and has resolved upon the insertion into Par. 412 of the Criminal Law Draft of a subsection 2 to run as follows:

"Actions carried out on animals may not be threatened with punishment so long as they are required for the pursuit of serious scientific purposes or for performing the rites of a religious society recognized by the civil law".

It is known that the Criminal Law Committee of the last Reichstag had already decided upon this additional subsection, upon the suggestion of Dr. Bell. It has now been adopted without change.

We hasten to inform you of the above.

Central Committee for Shechita Affairs
(signed) *Munk*

* Translated from a memorandum of the 'Reichszentrale' of 22nd March 1932.

Reichszentrale für Schächtangelegenheiten

Postscheckkonto: Berlin Nr. 160308
Felix Strick Sonderkonto Schechita

BERLIN N. 24
Artilleriestr. 31

Fernsprecher: Norden 9415

Berlin, den 22. März 1932
Purim 5692.

Der Strafrechtsausschuß des Deutschen Reichstags hat sich neuerdings wieder mit den Strafbestimmungen gegen die Tierquälerei befaßt und zu § 412 des Strafrechtsentwurfs die Einfügung eines Absatzes 2 mit folgendem Wortlaut beschlossen:

> „Handlungen an Tieren dürfen nicht mit Strafe bedroht werden, soweit sie zur Verfolgung ernster wissenschaftlicher Zwecke oder zur Erfüllung der Gebräuche einer Religionsgesellschaft des öffentlichen Rechts geboten sind."

Bekanntlich hat bereits der Strafrechtsausschuß des vorigen Reichstags diesen Zusatz auf Antrag Dr. Bells beschlossen. Er ist unverändert übernommen worden.

Wir beeilen uns, Sie von Obigem in Kenntnis zu setzen.

REICHSZENTRALE FÜR SCHÄCHTANGELEGENHEITEN

B. Some Documents Concerning the Import of Kosher Meat in Germany after the Prohibition of Shechita.

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"Reichszentrale" notification to a recipient of a gift of meat . 237

Letter from a Danish Ministry 238

A PERMIT FOR IMPORT OF KOSHER MEAT

The document represents a certificate of Approval, issued by the Supervisory Division of the Reich's Ministry of Agriculture, for the importation of a specified amount of kosher meat from Denmark. The Certificate is dated Dec. 15, 1937, is valid until Jan. 1, 1938, and declares that it must be returned upon expiration, without the Authority having to ask for it.

Überwachungs(Reichs)stelle

Reichsstelle
für Tiere und tierische Erzeugnisse als Überwachungsstelle
Berlin N 4, Johannis-Str. 20/21

Berlin, den 15. Dezember 193 7

Unbedenklichkeitsbescheinigung Nr. V/3- 290

Gegen die Einfuhr der nachstehend bezeichneten Waren durch die Firma Reichszentrale für Schächtangelegenheiten in Berlin NW. 87, Siegmundshof 15 bestehen keine Bedenken.

Nr. des Stat. Warenverzeichnisses	Handelsübliche Bezeichnung	Mengenangabe nach dem Maßstab des Zolltarifs (in Buchstaben)	Wert	Herkunftsland	Bemerkungen
108a	frisches Rindfleisch	sechzigtausend Kilo	ca. 42000.-	Dänemark	Geschenk
"	frisches Kalbfleisch	achttausend Kilo	zweiundvierzigtausend Reichsmark		

Diese Unbedenklichkeitsbescheinigung wird am 31. Januar 1938 unwirksam und ist nach Ablauf ihrer Gültigkeit ohne besondere Aufforderung an die Reichsstelle für Tiere und tierische Erzeugnisse als Überwachungsstelle, Berlin, zurückzureichen.
Für Schreibspesen usw. ersuche ich, RM. 0,50 auf das Postscheckkonto Berlin Nr. 181606 zu überweisen.

Durch die Erteilung dieser Bescheinigung werden etwaige veterinärpolizeiliche Einfuhrverbote oder Einfuhrbeschränkungen nicht berührt. Nach Ausnutzung ist die Bescheinigung der Reichsstelle sofort zurückzugeben.

Der Reichsbeauftragte

(Unterschrift)

Raum für Vermerke der Zollstellen

Bezeichnung und Nr. des Zollabfertigungspapiers:

....., den ..... 193 ...

(Amtssiegel) (Unterschrift)

E 26 (3. 36) Reichsdruckerei, Berlin

DIN 476 A 4

A LETTER OF THE URUGUAY DELEGATION IN GERMANY TO THE 'CENTRAL OFFICE'

advising that, by decision of the German Government, import of kosher meat will be permitted as an additional contingent to normal import only when paid for by donations from abroad.

LEGACIÓN DEL URUGUAY

Berlin, den 22. Oktober 1936

Nota No. 278
Carpeta 27/1936

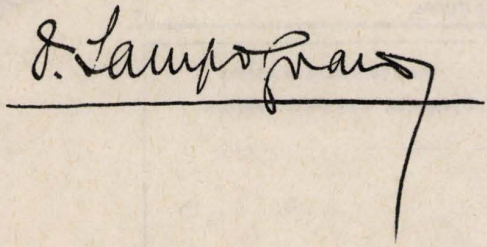
Eingegangen:
22 OKT 1936

Herrn Dr. M u n k
Reichszentrale für Schächteangelegenheiten.
B e r l i n N.W. 87
Siegmundshof 15

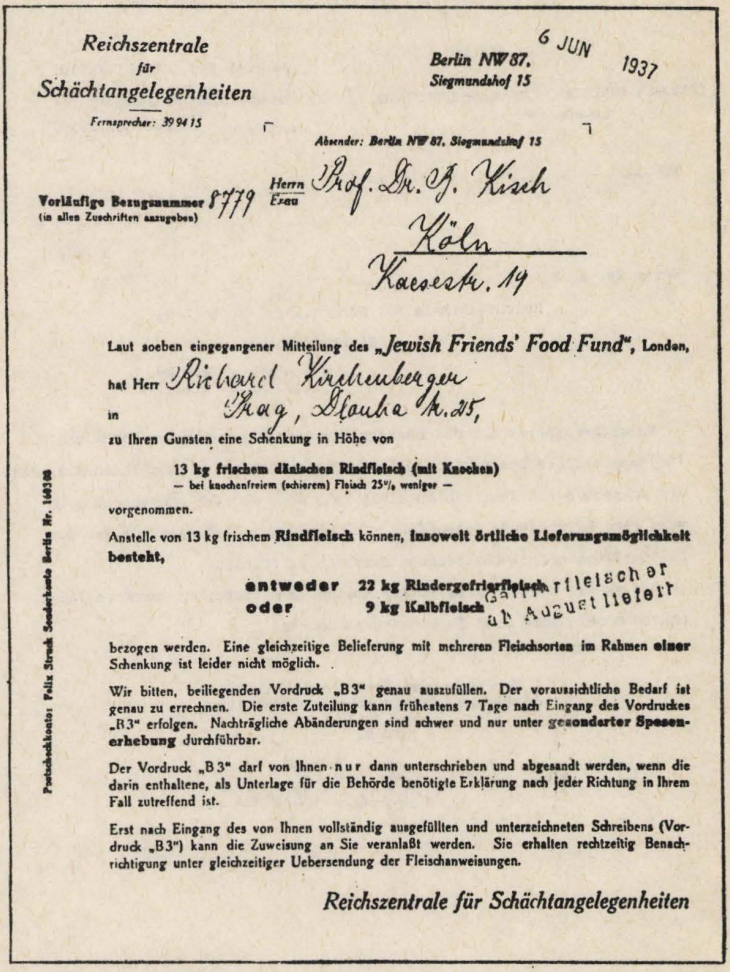
Sehr geehrter Herr!

Ich bestätige Ihnen hiermit, was ich Ihnen schon mündlich und telefonisch gesagt habe und bedauere Ihnen mitteilen zu müssen, dass es unmöglich ist Fleisch von rituell geschlachteten Rindern von Uruguay nach Deutschland auszuführen, da mir das hiesige Auswärtige Amt, auf Grund meiner Besprechungen, mitgeteilt hat "dass einer Einfuhr von rituell geschlachtetem Rindfleisch aus Uruguay nur dann zugestimmt werden kann, wenn dieses Fleisch ausserhalb des vertraglichen Kontingents nachweislich geschenkweise nach Deutschland eingeführt wird."

Genehmigen Sie die Versicherung meiner Hochachtung.



A sample of a "Reichszentrale" notification to a recipient in Germany of a gift of meat, indicating the amount and type of meat ordered by a sponsor abroad through the "Jewish Friends' Food Fund".



Reichszentrale
für
Schächtangelegenheiten

Fernsprecher: 39 94 15

Berlin NW 87.
Siegmundshof 15

6 JUN 1937

Absender: Berlin NW 87, Siegmundshof 15

Vorläufige Bezugsnummer 8779 (in allen Zuschriften anzugeben)

Herrn / Frau *Prof. Dr. J. Kisch*
Köln
Kaiserstr. 14

Laut soeben eingegangener Mitteilung des „*Jewish Friends' Food Fund*", London, hat Herr *Richard Kirchenbergen*
in *Prag, Slawka K. 25,*
zu Ihren Gunsten eine Schenkung in Höhe von

13 kg frischem dänischen Rindfleisch (mit Knochen)
— bei knochenfreiem (schierem) Fleisch 25% weniger —

vorgenommen.

Anstelle von 13 kg frischem **Rindfleisch** können, **insoweit örtliche Lieferungsmöglichkeit besteht,**

entweder 22 kg Rindergefrierfleisch
oder 9 kg Kalbfleisch

Gefrierfleischer ab August liefert

bezogen werden. Eine gleichzeitige Belieferung mit mehreren Fleischsorten im Rahmen einer Schenkung ist leider nicht möglich.

Wir bitten, beiliegenden Vordruck „B3" genau auszufüllen. Der voraussichtliche Bedarf ist genau zu errechnen. Die erste Zuteilung kann frühestens 7 Tage nach Eingang des Vordruckes „B3" erfolgen. Nachträgliche Abänderungen sind schwer und nur unter **gesonderter Spesenerhebung** durchführbar.

Der Vordruck „B 3" darf von Ihnen nur dann unterschrieben und abgesandt werden, wenn die darin enthaltene, als Unterlage für die Behörde benötigte Erklärung nach jeder Richtung in Ihrem Fall zutreffend ist.

Erst nach Eingang des von Ihnen vollständig ausgefüllten und unterzeichneten Schreibens (Vordruck „B3") kann die Zuweisung an Sie veranlaßt werden. Sie erhalten rechtzeitig Benachrichtigung unter gleichzeitiger Uebersendung der Fleischanweisungen.

Reichszentrale für Schächtangelegenheiten

Postscheckkonten: Felix Streck Sonderkonto Berlin Nr. 140288

AN OFFICIAL LETTTER OF INVITATION FROM A DANISH MINISTRY TO THE EXECUTIVE DIRECTOR OF THE "REICHS-ZENTRALE" TO GET AN EXIT VISA TO VISIT COPENHAGEN CONCERNING A PROSPECTIVE SHIPMENT OF MEAT

Such a specific invitation was required by the Gestapo, before the Executive Director was permitted to leave Germany.

Journal 5.B.4.Tyskl./5359.

LANDBRUGSMINISTERIETS KVÆG- og KØDUDVALG
Telefon Central 5672 Stat 51

LANDBRUGSRAADET, AXELBORG
KØBENHAVN V., 28.Februar 1938.

EW/AAL

Herrn Dr. Munk,
Reichszentrale für Schächtangelegenheiten,
Siegmundshof 15,
B e r l i n N.W.87.

Unter Bezugnehme auf das heutige Ferngespräch teilt der Vieh- und Fleischausschuss des dänischen Landwirtschaftsministeriums Ihnen mit, dass der Ausschuss mit Ihnen daran einig ist, dass es sehr angebracht sein wird eine Besprechung betreffend eine Lieferung ab 1.April ds.Js. von Koscherfleisch nach Deutschland zustande zu bringen.

Sie werden deshalb gebeten dem Ausschuss mitzuteilen, wann es Ihnen angenehm sein wird nach Kopenhagen zu kommen.

Der Vieh- und Fleischausschuss des
dänischen Landwirtschaftsministeriums
I. A.

appendices

I. ELECTRO-NARCOSIS

In the course of his efforts as Director of the "Central Committee of Shechita Affairs", Rabbi Ezriel Munk devoted a great deal of his time to the problems of electrical stunning prior to *shechita,* which was demanded by the opponents of *shechita.* First and foremost was the *halachic* aspect of the issue, and this produced mountains of correspondence with the leading Rabbinic authorities of Europe, most of which appears in *Edut Ne'emana, Part I.* In addition, however, Rabbi Munk also had to ascertain and clarify the scientific aspects of the matter in order to present the Rabbinic authorities with pertinent information on the basis of which they could pass judgment. In the Central Committee's archives, the Editors discovered numerous notations outlining the kind of information that would have to be determined if the matter was to be adjudicated intelligently. Several of these notations are reprinted here, together with a note of Dr. Solomon Lieben, who was leading in physiological research on the humaneness of *shechita* and on electro-narcosis. These expositions serve as an illustration for the thoroughness and the conscientious approach of the Religious Authorities, to whom they were submitted, before coming to a decision. Finally, as shown in this book, a decision was made to prohibit all manners of stunning prior to *shechita,* without specifying all reasons. This authoritative decision is binding on all Jewish communities.

a. Rabbi Ezriel Munk

Notes on Anaesthesia and Electro-Narcosis

I. The state of an animal prior to shechita, and how this would affect an application of anaesthesia

1. There must be no anatomic or functional damage to any internal organ, in particular no maiming, constriction or obstruction to the arteries of the heart.
2. The circulation of the blood must remain unaffected.
3. The bleeding resultant upon slaughter must be of the same force, color and consistency as it would have had if the animal had not been anaesthetized.
4. The anaesthesia must not be such as to cause death, either by itself or in conjunction with the *shechita* cut.
5. Anaesthesia must be reversible, i.e. be such that an animal, after being so treated, could regain its normal state of awareness.
6. In the case of electro-narcosis, the dosage must preclude any possibility of mistake. The technique must be such as every *shochet* and abattoir assistant can learn.
7. It must leave the meat in a perfectly wholesome condition.

II. General questions regarding electro-narcosis

1. Is it possible to calculate, in each particular case, the maximum time-lag between the application of the anaesthetic and its effect?
2. The procedure in the abattoir must be suitably regulated.
3. What dosage could, in any particular case, have a lethal effect?
4. What is the cumulative effect of such anaesthesia?
5. How does anaesthesia affect the keeping properties, quality, odor and taste of the meat?
6. The application of the anaesthetic must be painless.

In view of the difference in constitution among animals of one and the same kind, the impossibility of precisely determining the

constitution of any particular animal or of calculating it on the basis of age, weight and other factors, and the fact that this depends upon the kind of food the animal has received and the atmosphere and humidity of the room, it follows that the effect of the electric current cannot be determined in advance with any certainty, and it is impossible to construct an exact scale of dosages to be employed.

Beside the rules prescribed by religious law about the condition of the animal's organs and its viability, we have also the requirement of the civil law, applicable to any kind of anaesthesia, that it (e.g. the bolt-shot) must take effect rapidly and allow no time for the animal to become agitated or excited. The electrocution procedures sanctioned for use on pigs in the German abattoirs work with instantaneous rapidity.

Experiments hitherto made with an electric current on cattle and sheep have shown the need to check particularly

a) the brain and its membranes for any increase in cerebral fluid, loss of consistency in the brain-mass or haemorrhage in the meninges.

b) the lungs for the condition of their surface, where remains of adhesions are observed, the consistency of the tissue, for any admixture of blood to the mucus found in the bronchia as an indication of capillary laceration in the pulmonary vesicles.

c) the heart and
d) the intestines for possible haemorrhage
e) any decrease of the blood pouring from the wound in the throat or any change in its color.

III. Scientific problems affecting the application of electro-narcosis before Shechita

1. Limitations:
   a. voltage b. duration c. overdose of voltage and duration.
2. a. May large and small animals be stunned with the same apparatus? b. limits.

3. a. Importance of humidity and weather.
   b. Importance of age and health on the individual reaction of the animals.
4. If death occurs after electric stunning?
   a. immediately? b. within which time?
   c. Can a layman recognize death, and which symptoms are significant?
5. How can one be sure that death did not occur before *shechita?*
   a. Heartbeats? b. Breathing? c. Reflexes?
   A) Immediately after *shechita* or after bleeding?
   B) Whether movements after *shechita* are not reflexes due to the effect of the electric current.
   C) Does the electric stimulation make reflexes impossible or difficult?
6. Differences between electrical shock and gradually increasing electrical stimulation.
7. Shock of brain and other organs:
   a. How can shock be observed?
   b. What is the nature of the shock?
   c. Examination of brain and other organs in regard to shock: (microscopic control).
8. Do electric sparks cause perforation? (in: meninges, lungs, gut)
   a. if so, can these be seen or not?
   b. may these occur only a while later?
9. Ruptures of blood capillaries and muscles.
10. Influence on post stunning life.
11. Which abnormalities in the brain are caused by the *shechita* cut and the death following it?
12. Whether the basis of the effect of electricity is anatomic or functional, and, if the latter, to define "functional".

IV. Halachic requirements of examination of an animal if to be slaughtered by shechita after electro-narcosis

The electrical current: type, intensity, voltage, and duration used.
Overdose in intensity of current and its duration.
Fall of the animal (tying the head to the winch).
Blood stream, blood color and amount of blood.
Pircus (movements) heartbeats and respiration after cut.

Examination of brain (Meninges, haematoma, blood points, consistence of brain, humidity, injection of arteries and veins).

Lungs (release of *sirchot* (adhesions), consistence of lungs, bleeding, tearing of capillaries).

Medulla spinalis, heart and kidney, gut, oesophagus, bones, muscles.

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Comparing with *shechitot* without stunning.

— — — — —

When current stops before *Shechita:*

Time of recovery, getting up, normal walk the next 24 hours. Control of the above in an animal which recovered more than 24 hours from stunning, up to the *shechita.*

b. Dr. Solomon Lieben

Observations on electro-narcosis [1]

1. *Rissuk Evarim,* the *halachic* term for damage to an animal's parts resulting from a fall, manifests itself in involuntary, uncontrollable muscle contractions and in passive movements which cannot be augmented or depressed by the affected animal. Such damage may occur to a conscious organism (as in the case of *nafla min hagag,* it fell off the roof) or an unconscious organism (an animal at birth).

Hence it is irrelevant for the diagnosis of *rissuk evarim* due to electro-narcosis, whether the animal has become unconscious or not. The general convulsions seen when an animal is felled by an electric current of 60 v, as well as the contractions of the animal's limbs and diaphragm when it has fallen down, are all part of the syndrome.

To place a cloth under the animal would diminish the impact of the fall, but it would not affect the convulsions, those externally visible or those which cannot be seen (since the latter occur in muscles of internal organs), as these are characteristic of electro-narcosis.

2. *Havla'ath Dam b'Evarim,* the *halachic* term for absorption of blood into an animal's organs, does not refer primarily to this condition in the brain alone but also to that of other organs induced by changes in the brain. A knock on the head is mentioned as causing *havla'at dam,* but obviously changes in the fourth ventricle and in the *medulla oblongata* have a pronounced effect on the vascular system of the *entire* body. There are no objective signs of *havla'at dam;* even a diminished outflow of blood from the *shechita* wound does not necessarily indicate *havla'at dam* because we have no information about the animal's total blood volume.

1. Translated from the German manuscript, dated 12th April 1934.

The occurrence of *havla'at dam* must be suspected whenever conditions in the head or brain have undergone sudden changes, be it before, during or after *shechita*. It seems that the prohibition of meat in which *havla'at dam* has taken place is connected with the notion that normal soaking and salting removes *dam evarim* (blood in the organs) but not *dam hanefesh* (life blood), which enters all parts of the body as a result of *havla'at dam;* in which case special methods would have to be applied to make the meat *kosher,* methods which cannot be made the rule under ordinary circumstances.

Since electro-narcosis induces a sudden change in the brain, it is reasonable to assume that *havla'at dam* may have occurred. While it would hardly be possible to prove this by objective data, such proof would probably not be required.

2. LEGISLATION PROTECTING SHECHITA IN VARIOUS COUNTRIES

The following is a listing of humane slaughter legislation in existence in many countries. In these regulations *shechita* is either approved as a humane slaughtering method or permitted for the protection of religious freedom.

Anti-*shechita* — agitation originated in Germany in the 1860's and spread to some neighboring countries. However, in the entire period of the agitation from the 1860's to the rise of Hitler no anti-*shechita* prohibition was imposed with the exception of one country.

Beginning with 1926 the Nazi sponsored revival of the anti-*shechita* movement started. The Jewish slaughtering method was banned in Norway in 1929, in Bavaria in 1930, in Brunswick in 1931, in Oldenburg in 1932, in Saxony, Hesse, Baden and in the German Reich in 1933, in Sweden in 1937, and in Hungary and in Italy in 1938. Legal restrictions were placed upon *shechita* in Poland in 1936. *Shechita* was made illegal with tell-tale haste in every country that fell to Nazi arms in the early years of World War II.

With the fall of Hitler these laws were abrogated and the right to practice *shechita* was re-established.

During the same period of Nazi power various democratic countries passed laws specifically safeguarding the practice of Jewish slaughtering from legal interference. Laws protecting *shechita* were enacted in Scotland in 1928, in Belgium in 1929, in Great Britain in 1933, in Finland and in the Union of South Africa in 1934, and in Eire in 1935.

A prohibition of *shechita* without preliminary stunning is in force in Norway, Sweden and Switzerland.

AUSTRALIA: Exports (Meat) Regulations, promulgated under the Customs Act 1901—1971 and the Commerce (Trade Description) Act 1905—1966, Regulation 12 (amended by 1965, No. 40, and 1967, No. 113) Para. 3 Methods of Killing.

AUSTRIA: April 28, 1905

(Dr. Bloch's "Oesterreichische Wochenschrift" June 2, 1905)

BELGIUM: March 22, 1929

("Recueil des Lois et Arretes Royaux", Bruxelles, 1929, No. 76, p. 548)

BRAZIL: Decree 30,691 of March 29, 1952, 18 Anuario de Legislacao Federal 31 et seq.

CANADA: The Humane Slaughter of Food Animals Act of Canada, Can. Rev. Stat. c. H-10 (1970). Par. 4 (1) (b)

DENMARK: Regulation No. 233 by the Minister of Justice of August 15, 1953, on the Slaughter of Domestic Animals. Amended by Regulation No. 234 of June 24, 1954, on Slaughter in Accordance with the Jewish Rite

EIRE: December 12, 1935

("Slaughter of Animals Act, 1935": No. 45, Part II, Section 15(2a)

ENGLAND: Slaughter of Animals Act, 18th December, 1958, ch. 8. Slaughter of Poultry Act, 1967, Chapter 24. Slaughterhouses Act, 1974, c. 3, Reg. 17

ENGLAND and WALES: December 18, 1958

The Public General Acts of 1958, "Slaughter of Animals Act", 7, Eliz. II, Ch. 8, Section 1

EUROPEAN ECONOMIC COMMUNITY: Directive on the Stunning of Animals Before Slaughter November 18, 1974

FINLAND: April 14, 1934

("No. 163. Statute for the Protection of Domestic Animals", Par. 4, "Suomen Asetuskokoelma", 1934)

GERMANY (prior to Hitler period):

The Reichstag protects the practice of Shechita from interference on the part of individual German states ("Stenographischer Bericht ueber die Verhandlungen des Reichstags", January 12, 1911, p. 3801)

Bundesrat decree of June 2, 1917 confirming the practice of *Shechita* ("Reichsgesetzblatt June 6, 1917, No. 105)

Upper Silesia: 15. August 1934

("Archives of the League of Nations, Geneva, Complaint No. 1382, Mixed Commission for Upper Silesia)

Prussia: Order of the Minister of the Interior annulling anti-*shechita*-ordinance adopted by local authorities in Prussia. (Letter of the Prussian Minister of the Interior. IV a I 48 II/III of April 23, 1932 addressed to the Union of Jewish Communities of Prussia and to the Union of Orthodox Synagogue Communities of Prussia — attention Rabbi Dr. Munk, Complaint No. 1382, enclosure II Mixed Commission of Upper Silesia, Archives of the League of Nations, Geneva)

Saxony: Prohibition of Shechita on March 21, 1892, and repealed in 1910.
("Verhandlungen des Landtags im Koenigreiche Sachsen", Zweite Kammer, 1913—1914, p. 2316. Schaechsisches Gesetz und Verordnungsblatt 1919, p. 748)

Wuerttemberg: ("Regierungsblatt fuer das Koenigreich Wuerttemberg", No. 5, p. 27)

GERMANY (post Hitler period):

Shechita was banned in Germany when Hitler rose to power. (Decree of April 21, 1933. RGB I, 1933, No. 39, p. 203). With the fall of Hitler, the anti-*shechita* laws in Germany were all abrogated, being branded by the German Supreme Court as an arbitrary Nazi-decree which was motivated by antisemitism pure and simple (BGH — IV ZR 305/59 — 1960). The anti-*shechita* decree has no further effect (Giese/Kahler, Decree concerning the slaughtering of animals, Par. 1, Note 6, 156).

The anti-*Shechita* decree of April 1933 was abrogated and the right to practice *Shechita* re-established as e.g. in:

Bavaria: January 14, 1946. Verordnung Nr. 49 ueber das Schlachten von Tieren (Gesetz- und Verordnungsblatt S. 142):

Hamburg: March 7, 1946. Aenderung der Verordnung ueber das Schlachten von Tieren (Verordnungsblatt S. 25)

Hessen: June 20, 1947. Gesetz ueber das Schlachten von Tieren (Gesetz- und Verordnungsblatt S. 37)

Nordrhein-Westfalen (prev. Nord-Rheinprovinz): March 7, 1946. Verdordnung ueber das Schlachten von Tieren nach juedischem Ritus (Mitteilungs- und Verdordnungsblatt des Oberpraesidenten der Nord-Rheinprovinz S. 127)

Nordhein Westfalen (prev. Provinz Westfalen): March 23, 1946. Anordnung ueber das Tierschlachten auf juedische Weise (Mitteilungs- und Verordnungsblatt des Oberpraesidenten der Provinz Westfalen S. 46).

The right to practice *Shechita* was later incorporated for the entire Bundesrepublik in Einfuehrungsgesetz zum Strafgesetzbuch (EGStGB) March 2, 1974 (BGBl. I. S. 469 — Act 216).

HOLLAND: Vleeskeuringswet July 25, 1919

(Law of meat inspection, permitting *shechita,* amendments by Royal Decree of 5th June 1920, 9th February 1948, and 1957.

ITALY: Law protecting *Shechita,* December 20, 1928

("Gazzetta Ufficiale del Regno d'Italia", February 12, 1929, No. 36, p. 693)

LUXEMBOURG: 26 February 1965

Art. 2 par. 1 (contains protection of religious rights).

MEXICO: Identical to statutes of the United States of America.

SCOTLAND: August 3, 1928

("1928: The Public General Acts", London, Chap. 29, p. 210)

UNION OF SOUTH AFRICA: May 16, 1934

("Statutes of the Union of South Africa, 1934. Act No. 26 of 1934, pages 166—172)

UNITED STATES OF AMERICA:

In the United States, Public Law 85—765 (1958) specifically designates *shechita* as a "humane" method of slaughtering. This law also applies to all individual states which do not have laws of their own relating to *shechita.*

In April of 1974, a three-judge Federal Court ruled first that the section in the above-mentioned Public Law, in which Congress defined *shechita* as "humane", is based on uncontradicted scientific evidence, and second, that such a law did not constitute a law in violation of the "Establishment Clause" of the U.S. Constitution[1]. In October of 1974, the United States Supreme Court affirmed the lower court's ruling, in effect confirming the constitutionality of *shechita* in the United States[2].

1. Jones v. Butz 374 F. Supp. 1284 (1974).
2. Jones v. Butz Supreme Court Reporter 22 (1974).

LIVESTOCK—HUMANE METHODS OF SLAUGHTER

For Legislative History of Act, see p. 3932.

PUBLIC LAW 85-765; 72 STAT. 862.

[H. R. 8308]

An Act to establish the use of humane methods of slaughter of livestock as a policy of the United States, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That:

The Congress finds that the use of humane methods in the slaughter of livestock prevents needless suffering; results in safer and better working conditions for persons engaged in the slaughtering industry; brings about improvement of products and economies in slaughtering operations; and produces other benefits for producers, processors, and consumers which tend to expedite an orderly flow of livestock and livestock products in interstate and foreign commerce. It is therefore declared to be the policy of the United States that the slaughtering of livestock and the handling of livestock in connection with slaughter shall be carried out only by humane methods.

Sec. 2. No method of slaughtering or handling in connection with slaughtering shall be deemed to comply with the public policy of the United States unless it is humane. Either of the following two methods of slaughtering and handling are hereby found to be humane:

(a) in the case of cattle, calves, horses, mules, sheep, swine, and other livestock, all animals are rendered insensible to pain by a single blow or gunshot or an electrical, chemical or other means that is rapid and effective, before being shackled, hoisted, thrown, cast, or cut; or

(b) by slaughtering in accordance with the ritual requirements of the Jewish faith or any other religious faith that prescribes a method of slaughter whereby the animal suffers loss of consciousness by anemia of the brain caused by the simultaneous and instantaneous severance of the carotid arteries with a sharp instrument.

Sec. 6. Nothing in this Act shall be construed to prohibit, abridge, or in any way hinder the religious freedom of any person or group. Notwithstanding any other provision of this Act, in order to protect freedom of religion, ritual slaughter and the handling or other preparation of livestock for ritual slaughter are exempted from the terms of this Act. For the purposes of this section the term "ritual slaughter" means slaughter in accordance with section 2(b).

Approved August 27, 1958.

Listed below are individual States of the U.S. which have enacted humane slaughter legislation permitting *shechita* on the grounds that it is humane or for reasons of religious freedom.

Federal: Public Law 85-765 85th Congress, H.R. 8308 (1958)

Arizona: Chapter 4 "Humane Slaughter of Animals and Sale of Meat", Article 3, Methods of Slaughtering which are Humane, Sections 24-661, 24-662, 24-663 (1966)

California: Chapter 6 Section 19501 of the Agricultural Code (1967)

Colorado: Department of Agriculture Regulations (1965) as pursuant to Colorado Humane Slaughter Act of 1965 (Chapter 8, Article 16)

Connecticut: Chapter 432, Section 22-272a "Approved Methods of Slaughter" (1965)

Florida: Chapter 828, Section 828.22-828.26, "Humane Slaughter Requirement". Rules of Department of Agriculture, Chapter 7c.2 "Methods of Humane Slaughter" (1961)

Illinois: "An Act to define and require the use of humane methods...", SB 928 Section 229.54 (1968)

Indiana: "Rules and Regulations concerning Humane Slaughter" Ch. 35-4122—35-4124 (1967)

Iowa: Section 189A.18, Code 1966, "An Act relating to Humane Slaughtering methods..." as amended.

Kansas: Article 14, "Humane Slaughter" Sections 47-1401—47-1405 (1961)

Maine: Department of Agriculture Title 22, Revised Statutes (1964) Section 2531, "Slaughterhouses and Meat Processing Plants".

Maryland: Annotated Code of Maryland, Article 27, "Humane Slaughter of Livestock", Section 333a,b,c (1962)

Massachusetts: Regulation of Trade, Chapter 94 "Ritual Slaughter", Section 139c,d,g (1962)

Michigan: Act 1963; Public Acts of 1962, Humane Slaughter of Livestock Section 12.484 (1—4)

Minnesota: "An Act relating to the Humane Slaughter of Livestock" (1959) Section 31.59 Humane Slaughter of Livestock.

New Hampshire: "Humane Slaughter Law" (1959) Ch. 575A

Ohio: "Humane Slaughter of Livestock Law", Section 945.01 (1965)

Oklahoma: "Humane Slaughter Law", Chapter 24 Section 1054 (1963)

Oregon: Chapter 603, 1965 Replacement Part, "Meat Dealers; Humane Slaughter", Section 603.310

Pennsylvania: Commercial Slaughtering of Livestock (1965). Part 3 "Humane Methods", Sections 451.51-55

Rhode Island: Part 4: Ch. 17 Humane Slaughter of Livestock (1961)

Vermont: Par. 8: Ch. 201 Humane Slaughter of Livestock (1968)

Washington: Department of Agriculture Order 1067, "Regulation Relating to the Humane Slaughter of Livestock" (1967)

Wisconsin: "Humane Slaughtering", Section 95-80 (1971).

3. CONTENTS

OF THE HEBREW DOCUMENTARY

EDUT NE'EMANA (PART I)

Commendations: Rabbi Yitzchak Hutner, New York
Rabbi Yitzchak Yaacov Weiss, Jerusalem
Rabbi Moshe Feinstein, New York

Introduction

Dr. Solomon Lieben: Shechita

Rabbinic Responsa and Declarations of Rabbinic Authorities about Shechita (see next page)

Dr. I.M. Levinger: Medical Aspects of Shechita.

Registers

Jerusalem, 1974

4. LISTING OF RABBINIC AUTHORITIES

This list contains the names of Rabbinic Authorities whose Responsa and Declarations in connection with *shechita* are published in the Hebrew Documentary *Edut Ne'emana* (Part I). It also includes names of Rabbis and others mentioned therein.

All those listed below are Rabbis, unless described otherwise.

Abramski Yecheskel
London-Jerusalem

Ades, Ezra Nissim
Manchester

Ades. Jacob
Jerusalem

Akon, Moses Chayim
Bne Brak

Azulai, Shalom M.
Jerusalem

Babad, Abraham
Sunderland

Bamberger, Simon
Stuttgart-Bne Brak

Beck, Abraham
Paris

Berman, Jeremiah J.
New York

Biberfeld, Eduard, Rabbi and M.D.
Berlin

Bidermann, Jacob Meir
Warsaw

Blau, Moses
Jerusalem

Bloch, Chayim Isaac
Jersey City

Breslauer, Juda
Fürth-New York

Breuer, Joseph
Frankfurt-New York

Brodie, Israel
London

Brot, Samuel
Jerusalem

Cahane, Solomon David
Warsaw

Carlebach, Joseph
Hamburg

Cohn, Asher Michael
Basel

Dembo, I.A., Professor
Leningrad

Ehrmann, Naphtali
Baden, Switzerland

Eigis, Henoch
Vilna

Epstein, Aron
Prag

Finkel, Eleasar Juda
Mir-Jerusalem

Frank, Z'vi Pessach
Jerusalem

Gad, Johannes, Professor
Prag

Gaon, Salomon
London

Greinemann, Samuel
Bne Brak

Grodziensky, Chayim Oser
Vilna

Gutschechter, Chayim Josua
Warsaw

Hildesheimer, Hirsch
Berlin

Hillman, I.S.
Jerusalem

Hirsch, Samson Raphael
Frankfurt

Hadaya, Ovadya
Jerusalem

Halberstadt, Benzion
Bobow

Hertz, Joseph Hirsch
London

Herzog, Isaac
Jerusalem

Hoffmann, Jacob
Frankfurt-Tel-Aviv

Horowitz, Joseph Jona Z'wi
Frankfort-Bne Brak

Heilprin, Elchanan
London

Israeli, Saul
Jerusalem

Jakobovits, Immanuel
London

Jakobovits, Joel
Berlin-London

Jerucham, Chayim Isaac
Vienna

Kamai, Abraham Hirsch
Mir

Kanal, Isaac Meir
Warsaw

Kaniel, Joshua
Haifa

Kanovitz, Joseph
Boyan-New York

Karelitz, Abraham Yeshaya
Bne Brak

Karlinsky, Josua
Brooklyn, N.Y.

Katz, Ruben
Petach Tikva

Klein, Abraham Isaac
Nuernberg-Haifa

Klein, Hermann Ze'ev Zvi
Berlin-Buenos Aires

Kohn, Pinchas
Ansbach-Jerusalem

Kotler, Aaron
Klezk-Lakewood

Krauss, Moses Elieser
Leeds-London

Landau, Menachem Mendel
Zawirecze

Leibowicz, Baruch Duber
Kamenicz

Lewin, Isaac
Rissov-New York

Lewenstein, Tobia
Zurich

Lieben, Solomon, M.D. and
Scientist
Prag

Melzer, Isser Zalman
Luzk-Jerusalem

Merzbach, Yona
Darmstadt-Jerusalem

Munk, Eliyahu
London-Jerusalem

Munk, Esra
Berlin-Jerusalem

Munk, Michael
Berlin-New York

Nachmani, B.
Jerusalem

Perez, Israel Juda
Schoenlanke

Plato, Hirsch
Koeln

Posner, Chayim
Warsaw

Prato, David
Alexandria-Rome

Rabinow, Joseph
Hamburg-Bne Brak

Ragosnitzki, Noach
Warsaw

Rappaport, Abraham
London

Rath, Meshulam
Czernowitz-Jerusalem

Rosenberg, Israel
New York

Rosenheim, Jacob
Communal Leader
Frankfort-Tel Aviv

Schakovitski, Naphtali
Gateshead

Schazkes, Moses
Lomza-New York

Schlesinger, Yechiel
Frankfort-Jerusalem

Schreiber, Simcha Bunim
Pressburg

Schub, Joseph
Vilna

Selzer, Juda Leb
New York

Semba, Menachem
Warsaw

Silber, Elieser
Cincinnati

Skop, Simon Juda
Grodno

Soloweiczik, Joseph Dow
Boston

Sorozkin, Solomon
Luzk-Jerusalem

Spektor, Isaac Elchanan
Kovno

Spitzer, Abraham Samuel
Benjamin
Hamburg

Spitzer, Benjamin Salman
Vienna

Strasser, Solomon Hirsch
Debrezin

Toledano, Jacob Moses
Tel Aviv

Unna, Isaac
Mannheim-Jerusalem

Untermann, Isser Jehuda
Tel-Aviv

Wahrhaftig, Zerach,
Minister of State
Jerusalem

Weinberg, Yechiel Jacob
Berlin-Montreux

Wassermann, Elchanan Bunim
Baranowicz

Wassermann, Moses Samson
Breslau-Tel Aviv

Weiss, Isaac Jacob
Manchester-Jerusalem

Zeitlin, Elsey, Barrister at Law
London

Zober, Israel
Stockholm

5. BIBLIOGRAPHY
ON SHECHITA AND ITS DEFENSE

The following Bibliography lists works containing scientific, legal, religious and historic expository material on the subject of *shechita* and its defense. It does not include Bible, Talmud and codes of Jewish religious law or civil law.

Part I lists publications, alphabetically arranged according to their *Authors.*

Part II lists *Anonymous Literature,* divided according to country of origin and subdivided according to subject matter.

Part III lists *Halachic Literature* written in Hebrew, alphabetically arranged according to *Authors.*

This is not an exhaustive Bibliography. It is limited to material found primarily in the following collections:

a) *The Archives of the Central Office of Shechita Affairs* in Berlin, which are now in the possession of the Editors.
b) *The Board of Deputies of British Jews* in London.
c) *The Schweizerische Israelitische Gemeindebund* in Zuerich.

PART I
AUTHORS

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PART II

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Reprint of Warsaw: 1895.

6. POSTSCRIPT

Dr. Jacob Levy

Whoever skims through the two volumes of "Edut Ne'emana", must be impressed by the diversity of the activities of the "Bureau for the Defense of Shechita" and will come to the conclusion that it was indeed a mighty edifice consisting of various departments, each with its director and appropriate staff.

There was — so one would think — a halachic department headed by a rabbi, a physiological department with a doctor, a technical department, a journalistic and literary department, a political and parliamentary department and so forth.

But all this is merely imagination. The whole Bureau for the Defense of Shechita actually consisted of the two rooms used by the Rabbi of the "Adass-Jisroel Congregation in Berlin" and his secretary; the sole live spirit was the Rabbi of this community, Rabbi Dr. Esra Munk of blessed memory. He had a wonderful way of not only directing all these different departments, but of acquiring in every field a degree of specialized knowledge which amazed the specialists.

I remember how one day, before the Nazi régime, I was allowed to accompany the Rabbi to the German Reich Department of Health at a time when we were once more threatened with a ban on *shechita*. I was amazed by the deference paid to him as a person: all the doors of this important government department were respectfully opened to him; the director of the department greeted him like an old friend. Rabbi Munk brought with him a scientifically reasoned exposition proving that *shechita* involved no

possibility of cruelty to animals. When my turn came to cite recent scientific researches in further support of his arguments, the State expert declared that he was completely convinced by the Rabbi's scientific exposition. It was only as a matter of courtesy that I was allowed to report on Dr. Solomon Lieben's latest experiments in injecting charcoal made from linden-blossom into the blood-vessels of the brain.

Day after day Dr. Munk carried on telephone conversations with his specialist advisers — with the above mentioned Dr. Lieben of Prague; with the legal adviser, the Mr. Victor Loewenstein of Munich, who had connexions with influential Bavarian authorities while the mail brought responsa from the foremost halachic authorities in Lithuania and Poland. He tried out technical suggestions, such as one for a casting apparatus. The first device of this kind was the work of my brother, Dr. Fritz Levy; it was later perfected by the engineer Weinberg of Leeds. Dr. Munk supplemented his own medical knowledge by discussions with professors of the Veterinary Colleges, he succeeded in enlisting their support to the cause of *Shechita* Defense and in obtaining from them specialist opinions which were extremely helpful in promoting the cause. He also encouraged doctors to publish papers providing scientific answers to the charges leveled by the opponents of *shechita*. One day he told me: "Your parents gave you the chance to study medicine. This means that you are under an obligation to use your knowledge for the benefit of the *klal* (community). Write a work on the *shechita* question!" These are just a few details of the work achieved by Rabbi Munk as the head of the "Bureau for the Defense of Shechita", later called the Central Office of Shechita Affairs, besides his other manifold activities for the Jewish Community.

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See also Index pp. 209—214 for medical aspects.