work which will be found useful for the employment of manual training. Cane-weaving and basket-making are easily learned, and so are Macramé work; and wood-carving of a simple character may be even learned by advanced cases. Knitting, crochet and darning should of course be learned, as these occupations will come in very useful, not only for the institution, but for the home, if the child should improve sufficiently to be discharged. In the cases of the rich, there is a great range of employment open, but for those who are children of working men much can be done. Work on the farm or in the garden will be of use in the country, and, if in a town, cobbling, tailoring, basket-making and mat-making should be taught. Girls should be trained in domestic work and in the laundry and also in making garments.

I am aware of the somewhat fragmentary nature of these observations, but they have been put together in the course of a busy life. Such as they are, I hope they may be of use to the audience to whom they are addressed.

EUTHANASIA—A MEDICOLEGAL STUDY.

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The last moments of our earthly career, the moments of transition from life to death, present a solemn and direful spectacle. To employ means to keep the dying individual a little longer on life's shore, or to hasten his "shuffling off this mortal coil," is a question which frequently confronts the physician. We are aware that death does not always come gently, "as light winds, wandering through groves of bloom, detach the delicate blossoms from the tree." Most men die from violence or disease; euthanasia is a rarity. Indeed, it is so rare that the afflictions of only a few organs or structures may bring about this kind of dissolution. We refer to organic cardiac diseases and cerebral apoplexy.

The term "euthanasia" has been variously defined, and is still a word of considerable controversy; so much so that "euphoria" was taken to be its synonym, and in a measure, perhaps, rightly so, as we shall see later. Euthanasia is originally derived from the Greek prefix *eu*, meaning well, and *thanatos*, death, or, in other words, "a painless death." This is the etymological signification of the word. There is also another meaning to it, to-wit: "a means for producing an easy death." It is with euthanasia, as expressed in the latter definition, that we shall deal in this paper.

The application of euthanasia is quite ancient. Egypt is, perhaps, its cradle. There it was extensively practiced among its priests, and to a certain extent among the military caste. To these chosen castes, stoicism was unknown; pain, degrading. The priests took upon themselves the solemn oath to alleviate pain whenever it existed, by any means whatsoever. Their medical armamentarium was deficient. Some of the important narcotics and anodynes were absolutely unknown to them. When remedial agents had proved inefficacious, and when death seemed inevitable, euthanasia was the only and last resort. Asia, especially the Orient, follows Egypt in this particular quite closely. The Bible tells us of the easy deaths of Abraham and Moses, namely, that the soul was kissed away by the breath of the Omnipotent. (See Rashi, Bible Commentator.) In fact, the ancient Hebrew considered an easy death to be an earthly reward from Heaven, to which only the

righteous one could lay claim. Of the peaceful departure of Buddha, the Veda and Sanscrit furnish us with a beautiful picture. There it is stated, that on Buddha's command, the most venomous of serpents, the cobra, inserted its fangs in the locality of the forearm, and that Buddha thus died away in ecstasy. This and other methods of producing euthanasia are still in vogue in many parts of India. Rome and Greece offer us traditions of a similar nature. In these two countries the most prevalent method of producing euthanasia was to sever the radial artery. Another favorable mode was a goblet of hemlock. Even in modern times, the Mussulman, and, to some extent, the wily celestial, induce euthanasia by inhaling the fumes of the great somnifer, opium, and roll into everlasting dreams of enchanting hours or extensive rice fields.

What these semi-barbarians do unconsciously many civilized nations do as a result of ripe consideration and scientific decision. In this respect France ranks foremost. Whether those conclusions, however, are compatible with the highest principles of ethics, is the question to be discussed in the present paper.

Judge Simeon E. Baldwin, of New Haven, Conn., in the course of an address delivered before the American Science Association, of which he is president, made the following remarks:

"Of late years, it has become the pride of many of the medical profession to prolong such lives [meaning the lives of patients incurable] at any cost, discomfort and pain to the sufferer, or of suspense or exhaustion to his family. The patient has come to a point where he can not bear the thought of eating. The throat declines to swallow what the stomach is no longer able to digest. He craves nothing but to be let alone. A few hours, and Nature will come to his release. She is already, perhaps, fast throwing him into that happy unconsciousness of pain which we call lethargy. The vital forces have been spent. The mainspring is broken and the watch has run down. It can be made to tick feebly for a minute or two by shaking it hard enough; but *cui bono*? Only another mainspring can mend it. Only another soul, another world, can give value to this human life that is ready to flicker out because it is worn out. . . . Nature has kindly smoothed the sufferer's pillow by leading the way to that gradual exhaustion of the vital powers which follows the refusal of the stomach to receive or to digest food. To force nutriment into the system in such a case through other channels is simply to prolong a useless struggle at the cost of misery to the patient and to the profit of no one but the doctor and the nurse. In determining the nature of a disease, we look for the cause to the symptoms. Nature has so ordered it that symptoms are observed at that time of life when life is most worth saving. A lesion of one organ may then be expected to produce a reaction throughout the system. There is a general sympathy of the parts. On the other hand, in old age, the outward manifestations of an interior lesion seldom indicate that more than one organ is affected, and are often hardly noticeable at all. The patient does not know that he is a patient. There is no occasion that he should. The weakest part of his bodily mechanism has broken down. Why patch it up? Another is hardly less weak, and must soon succumb. Better for him and for his friends that his last days should be unclouded by the apprehension of coming death, and the change come to him quietly as a dream in sleep."

It is evident from what we have cited that Judge Baldwin holds that the physician's duty to save life is

only applicable in cases where there is a life to be saved. Where "the mainspring is broken and the watch has run down" there is no use of repairing. Under such circumstances it is best for the patient himself, as well as for his friends, that his life should uninterruptedly pass. By no means would the Judge tolerate the patient to suffer. He also suggests that death "come to him quietly as a dream in sleep." In a word, he favors euthanasia, only in a limited sense, however. At no time during his entire address does he state that physicians should directly hasten death; though should the physician act on Mr. Baldwin's advice, he would really do so indirectly.

Prof. L. F. Barker, of the University of Illinois, at the conclusion of an address delivered before the Ontario Medical Association, Toronto, June 6, 1900, remarked: "If radical cure be impossible, he will not forget the palliative; if at last the exitus letalis can not be prevented, he will at least see that the end is euthanasic."

The French Academy of Medicine, at one of its meetings, after listening to many cons and pros concerning euthanasia, conclusively asserted that its application is justifiable whenever death is extremely agonizing and only a question of hours. But it was Dr. Bach who advocated euthanasia—in the sense of being a means to produce death—determinately. In 1895, at the Medico-legal Congress, the learned Doctor said: "Physicians have the moral right to end life when the disease is incurable, painful and agonizing." In this country, however, we are not favorably inclined to the dicta expressed above.

To administer drugs with the knowledge that it will produce euthanasia would not only amount to an indictable crime at law, but it would also be regarded as an incongruity to the ethics of the medical profession and to public morals at large.

"Euphoria" is what the physicians in this country will sometimes apply. The term euphoria means the aptitude to bear pain. It also signifies "causing comfort." That is why euphoria is frequently used synonymously with euthanasia, and that is the utmost that our physicians here will accede to. In no case will they directly hasten death.

As a matter of law, it is well settled that euthanasia—in the sense of being a means of producing an easy death—is prohibited. It is an old legal principle that the taking of a life is only excused if it is so done to save a life. In cases of abortion, for instance, the fetus may be sacrificed, if it is necessary, for the purpose of saving the life of the mother. Of course, it may be argued, that a person can only be guilty of homicide if his conduct was the direct cause of death. Hence, if the patient was suffering from a mortal wound he would have died anyway; euthanasia only hastened his end. But such reasoning is fallacious, and not recognized in law. According to law, "causing death and hastening death are the same thing, for all men must die some time." This doctrine is well recognized, and was upheld in *Com. vs. Fox*, 7 Gray, 585; *State vs. Costello*, 62 Iowa, 404; *State vs. Scates*, 5 Jones (N. C.), 420.

In the case of *People vs. Ah Fat*, 48 Cal., 61, it was held that if one suffering with advanced pulmonary tuberculosis, of which patient would have succumbed within a month, and a person knowing the patient's condition, should intentionally drench him "with cold water, by reason of which death supervenes immediately, he is as much guilty of murder as though he had stabbed him with a knife."

In cases where the physician has no actual knowledge of the danger of his treatment, on account of his own ignorance, so much so that it will amount to gross and reckless carelessness, he is guilty of homicide. (See *State vs. Center*, 35 Ver., 378; *Commonwealth vs. Pierce*, 138 Mass., 165.) In connection with this, it should be remarked that if a physician administers a certain drug, fully believing that the drug so administered will not do harm, but that it will benefit his patient, and contrary to his anticipations, it kills him, the physician is not indictable; i. e., providing the physician exercised ordinary care and prudence. (See 6 Mass., 141.)

In England, also, it is well established that the physician is liable for careless conduct. (See *Rex vs. Williamson*, C & P., 635; *Tessymond's case*, 1 Lewin, 169; *Ferguson's*, 1 Lewin, 181; *Rex vs. Long*, 4 C. & P., 398; *Rex vs. Senior*, 1 Moody, 346; *Regina vs. Whitehead*, 3 C. & K., 202; *Regina vs. Chamberlain*, 10 Cox, C. C., 486.)

From the foregoing it is obvious that the inability of the physician to foresee the evil consequences of his treatment has no weight with the courts of England and America. The question is always, whether the court found "the evil consequences" obvious. And this responsibility of the physician is binding on him independent of the consent of the patient. (See *Commonwealth vs. Collberg*, 119 Mass., 350.)

Should a case occur where it would be imperative to administer the maximum dose of a remedy, with the intention of assuaging pain and suffering, and should the attending physician anticipate that such quantity is apt to produce simultaneously cessation of the vital functions, and thus anticipating, should he still run the risk and administer that dose, what would be his liability? The law in such cases implies malice. He would, therefore, be guilty of homicide. (See *People vs. Sanchez*, 24 Cal., 17; *State vs. Wells*, 61 Ia., 629; *Tooney vs. State*, 5 Tex., 163.)

Thus far we have shown the consensus of opinion of the medical profession, and the decisions of the courts. This, however, by no means solves the problem. Whether euthanasia shall be practiced or not still remains an open question.

We know that in many cases euthanasia would indeed be a godsend. Let us illustrate it by the following case which occurred in the practice of one of the leading physicians of this city: A man aged 70, German by nationality, received a paralytic stroke disabling him of voluntary locomotion. In consequence of this, he became confined to bed. Improvement set in very gradually. Contrary to the advice of the physician, he began to indulge in walking. He stumbled, fell and contracted an intracapsular fracture of the hip-joint. The same was reduced, but on account of his advanced age union did not take place. Chronic invalidism was his share. He could never leave his bed. Due to degenerative changes, decubitus set in, producing much distress and agonizing pain. In spite of good care, feeding and proper medication, he grew worse. The ulcer extended peripherally and into the deeper structures, laying bare the tuberosity of the ischium. The discharge was fetid and cadaverous, necessitating frequent dressings. He was an incessant menace to himself and his family. He lamented bitterly and implored the physician to induce death. Even the family could not endure the suffering of the old man, and corroborated his plea. To change the dressings meant disgust and malaise on the part of the members of the family and the physician. Half a grain of morphin was given hypodermically for the

pain thrice daily, but without avail. Piecemeal, that man rotted away, a source of horror to himself and his surroundings. Such a case is but one of the instances that occur not infrequently in the physician's practice. Would it not be an act of mercy to practice anesthesia to its fullest extent and allow death to "come to him quietly, as a dream in sleep?" On the other hand, should the portals to the application of euthanasia be open, there is hard telling at what stage they would close.

Human beings are presumptuous. Make no restrictions and matters will run riot. Society, in order to maintain and protect itself, can not rely on the judgment of certain individuals. The law, therefore, laid down hard and fast rules, which every one, without exception, must obey. Human beings are weak; temptations are great. Should law be silenced on this point? Some physicians might, under the pretense of doing a merciful act, really commit a deed of felony. Let us illustrate. An old man, very wealthy, is suffering from an acute attack of peritonitis. He has an unlawful child to whom he thinks to bequeath his estate. He also has a nephew who is nursing him, and who is aware of that fact. This nephew is very anxious to possess himself of this old man's estate. Something must be done to prevent the old man from carrying out his intentions. The attending physician is a poor man. The nephew offers him a thousand dollars to apply euthanasia. The physician yields to the temptation. He hastens the old man's ascent to Heaven, and a double wrong is thus committed, to-wit: a life is taken and a rightful heir deprived. It is thus seen that the permission of the application of euthanasia would not infrequently be a paving of the way to injustice and crime. What, then, should we do?

Having considered both sides of the issue, our conviction is that, after all, it is far better for the welfare of society to let a few suffer, and not run the risk of creating crime and criminals. It appears to us that there is ample reason to dread that the practice of euthanasia would, in the long run, cause more harm than good. That is why the law, laboring as it always does for the good of the majority, has logically prohibited it. The working principle of jurisprudence is still the celebrated adage of the great utilitarian, Jeremiah Benton, the greatest happiness to the greatest number.

In no case, therefore, should the physician intentionally or directly cause death. "*Causa causæ est causa causati*" should be his warning. In other words, whenever the treatment of the physician is the direct cause, he should be considered as having created the cause; hence, he should be held responsible for its effects.

The physician is always under a great responsibility. At no time can he ever exercise too much caution. Due to the variety of circumstances, and the complexity of human nature, no ironclad rules can be laid down. But as a general proposition, it might be stated that he should at all times do his utmost to alleviate pain, and make the pangs of death as void of agony as possible. By doing so he will have complied with the highest standard of ethics, and will earn the gratitude of humanity.

Large Child.

Dr. J. Pfeiffer reports in the *Orvosi Hetilap*, No. 34, what he considers the largest child born in good health and spontaneously. As quoted in the *Bull Méd.*, the child weighed 6600 gm., or about 14.1 pounds. It was 55.5 cm. in length, and the head measured 37 cm. in circumference. The placenta weighed 2150 gm. and the cord was 53 cm. long.

REMOVAL OF A PIECE OF STEEL FROM THE GLOBE BY ELECTROMAGNET.

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James Andrews, 35 years of age, was presented to me by Dr. William S. Colefax, of Pompton, N. J. March 24, 1900. The patient had received an injury of the eye. While nicking bars with a steel chisel, a chip flew from the bar and struck him in the left eye. The foreign body punctured the globe at the upper third of the cornea, inflicting an oblique wound which extended entirely across the cornea in the superonasal quadrant from limbus to limbus. It passed into the globe through the iris and lens and into the vitreous chamber. The iris was prolapsed and the globe apparently filled with blood. The eye was cocainized and approached with the small end of the magnet devised by the writer; the piece of steel located and as it was engaged by the point of the magnet it was gradually withdrawn, the resistance being very slight. The prolapsed iris was then snipped off and the edges of the wound coapted.

The removed steel was crescent-shaped, $\frac{3}{8}$ inch in length, over $\frac{1}{8}$ in width and $\frac{1}{16}$ in thickness.

The eyes were bandaged and the patient sent to the Paterson General Hospital. He remained in the hospital four weeks; during the first two weeks the eyes were kept bandaged. He made a slow recovery, but never had any pain. During the next two weeks the eye was protected by London-smoke glasses. The only symptom which annoyed him was lachrymation on exposure to the light. There was considerable injection, which persisted. The pupil was distended and the lens cataractous. On May 19, there is very little redness of the eyeball remaining; there is no pain; the patient's health is good. He has been working for the past week; he still has some lachrymation in the left eye in the morning. The tension of the eyeball is normal; the patient can see shadows; the cataractous lens prevents ophthalmoscopic inspection. The appearances indicate the preservation of the eyeball and possible subsequent operative procedure for visual effect.

Medical Testimonials to New Remedies.—This was one of the chief questions discussed at the German Congress of Physicians and Naturalists held at Aix-le-Chapelle in September. Prof. His stated in his address that the creation of a central official laboratory for the testing of new remedies was an urgent necessity. No physician should write a testimonial in favor of a new remedy unless he has exceptional opportunities for testing it in hospitals or clinics. It should only be addressed to the profession and no one should be allowed to use it for advertising purposes in the daily press nor for general distribution. Physicians whose inventions are commercially exploited are responsible for the manner in which the advertising is conducted. Kobert insisted that before a remedy can even be advertised in the medical press it should be subjected to thorough theoretical tests in the chemical, bacteriologic, pharmacologic and physiologic laboratories and then tested on animals.