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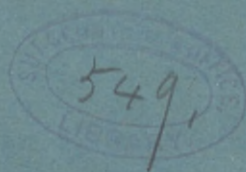
THERAPEUTICAL SUPERSTITION.

—BY—

GEO. T. WELCH, M. D.,

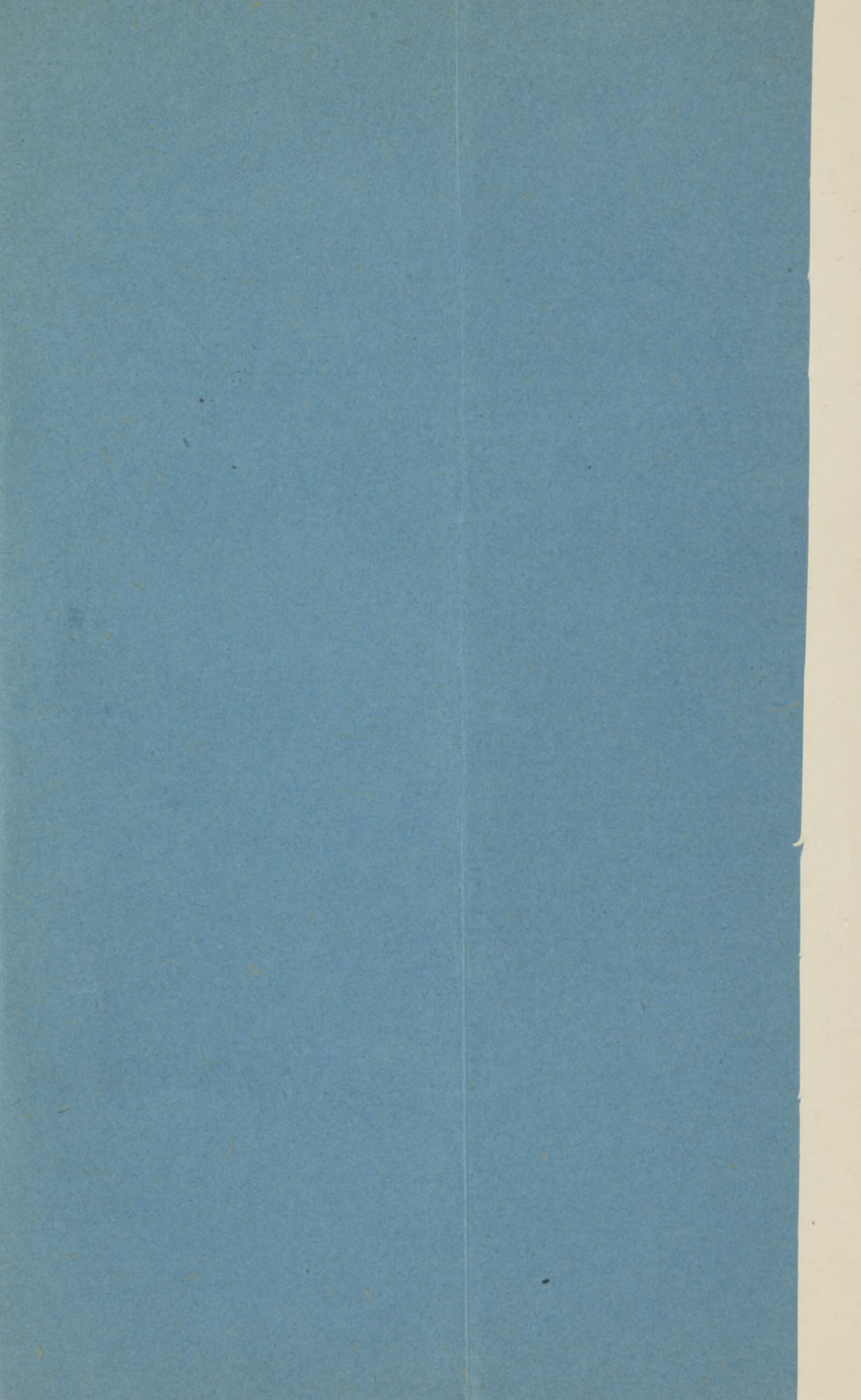
Ex-President of the N. J. State Medical Society.

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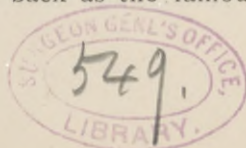
THERAPEUTICAL SUPERSTITION.

*Address of the President, read before the New Jersey
State Medical Society, at its meeting at Asbury
Park, in June, 1893.*

BY GEO. T. WELCH, M. D., PASSAIC, N. J.

Recent researches into obsolete medical works have convinced me that, an old scientific book is not more valuable in any other way, than it is in what it represents as a landmark of the attainment of thought and speculation up to the very hour that it issued from the press. Truth changes its aspect; what we have thought was an eternal principle, was some issue caught motionless at a turn of the tide. When we have believed penetration could go no further, some fresher genius has taken the trail and disappeared, after shining for a moment upon a further upland.

The Romans erected arches to victory, and columns in remote provinces to mark their ever-widening boundaries. Beyond many of these flowed the human tide, rising in continued swells of grandeur to this hour; but some of them are to be found by chance travellers, in deserts, and some have moldered quite away in vast solitudes. And just as these ancient and daring conquerors marked their latest triumphs with monumental shafts and sculpture, on which were graven battles and the names of heroes, so, in our books, the great teachers and historians of our art have celebrated the achievements of the profession and recorded the long roll of illustrious physicians. Some of these books, even so far back as the famous



one of Hippocrates, have been guides to prosperity, while others have been shunned as pointing the way to haunts of superstition and morasses of the human mind.

We smile superiorly when we look at some of them and perceive how very little had been wrested from ignorance and credulity, while the book itself is so pretentious. And yet every recruit, every appliance of skill, wisdom of the fathers, resource of the sons, drift of theories, fragments of tradition, charms even, and necromancy, all that was believed and all that was hoped, were brought together under the standard that was borne thus far into the wilderness—the Scythia that besets us with difficulties, and every morning presents a further horizon. And the latest book has brought all up to date, and with an unremitting courage the author has placed another shaft to victory, which we begin already to leave a day's journey behind us.

Nothing is established, nothing is sure, is a hopeless cry sometimes heard, but, like the Roman, we leave a regent in every conquered province, where, if the court shifts and the elements revolve, we still govern upon principles that defend us. Nor have we any reason to feel the superiority of any other profession above our own when we reflect that all alike are humbled before vast problems, and either feel their way with caution or are rebuked by the judgment of posterity. The austere creeds of the theologian are constantly crumbling. That which must be defended is no longer impregnable. Divinity is breaking into a thousand sects. The ameliorating, humanizing principle is abroad. Some of the weaker minds, not daring to try the issue, are for leading their flocks back into the old paths. They spurn their natural leaders and condemn them as outlaws, while with vestments and rituals they seek to lull the human mind.

They had as well seek to bind the floods with cassock bands, and seal the cave of the winds with threats and excommunication.

Should we turn to statesmanship, we find armed neutrality. The invention is sterile that dares not dare. And yet, empires are but maps of an hour. Slight incursions change boundaries. In law we approach the exasperation of politics. It is always changing and never satisfactory. It is a net that draws hard upon the petty criminal, but bursts when a corporation is entangled. Descartes found a whole library in the human body, but your lawyer, confronted with a perplexing cause, goes to a myriad of books to find his clues. We fret and repine because every physician that prescribes for an ailment is not a trained scholar in his profession, and we fulminate about it so much that, mistaking our conscientious care for an admission, the other professions smirk and grimace, but the egotist with the longest purse goes to the senate and the ruffian with the greatest saloon interest becomes the lawmaker for a state. In the cabinet there is vacillation, in the senate great measures stagnate, in the legislature partisanship predominates. Smirk hirelings climb the pulpit—"the hungry sheep look up and are not fed." In the natural sciences the savants are still classifying. The astronomer is not sure that his burned-out suns may not be stars about to germinate.

In the face of all this diletteism, what reason have we to stand at bay? We have gone far and have established much. No one will deny the potency of Jenner's vaccine, or Lister's antiseptic methods, and all that goes under the comprehensive title of hygiene. The study of preventable causes of disease is raising the standard of medicine, and just as physicians recognize that their

mission in a wider one than the mere administering of drugs to cure the ill, will they exalt their profession and become an established power in government. For if we exclude from the human family all the preventable diseases, and those produced by worry and mental strain, by physical strain, the excesses of the passions, by alcohol, tobacco, narcotics, unwholesome foods, impure air, by occupation, sloth and idleness, late hours and broken sleep, errors of dress, imitation and moral contagion, automatic diseases and hypochondriasis—all of which are evils that can be avoided—how small a percentage would be left for the doubtful compounds of the pharmacopia. “If intermarriage of diseases were considered in the same light as intermarriage of poverty, hereditary transmission of disease, the basis of so much misery in the world, would be at an end in three or four generations.”—*Richardson*. There will come a day early in the next century when a Secretary of Health will be as necessary a member of the Cabinet as he who holds the portfolio of Law or Agriculture.

That this has not been so long ago in all countries is not so much the fault of a progressive profession as it is of a vicious education in therapeutics. However man may deteriorate his health, however long he may have put at defiance every law of nature, he demands an instant cure. He may scoff at miracles elsewhere in the natural world, but he confidently expects one at the hands of his physician at any hour, let the disease be what it may. And the physicians are few who boldly stem this senseless tide. The majority yield to it; go with the current, pander the superstition. Vainly they offer this or that panacea, and painfully reminded by past experience that the discouraged patient may suddenly leave and go to the coast of some other Bohemia, they

make a dizzy change from drug to drug, but the demon of disease looks out and leers at them. He will not be propitiated or poisoned in his keep.

To have perfection in the child, says Holmes, we must begin with his grandfather, and in morals no man expects that a clergyman hastily called in will by some hocus pocus make saint of one who, long a sinner, has at length committed some atrocious crime. The mills of the Gods grind slowly—and human laws are inexorable, too. The transgressor finds to his cost that he must endure many fluctuations of hope, many fines and penalties, for the delays of the law are proverbial. There are, it is true, many ephemeral laws, such as have scourged us at Trenton since booted and spurred the jockeys have ridden the state till the galled jade winces, but the Supreme Court has remedied these right speedily, and so there are ephemeral diseases that Nature will right and which must succumb of themselves. And without cavail it is in the self-limited diseases that the incessant therapist has won his most signal triumphs. Like the fox in the fable, he has a thousand tricks by which he can baffle the acute assaults of la grippe, pleuritis, bronchitis, asthma, pertussis, endocarditis, dysentery, chorea, rubeola, deugne and acute rheumatism, for these are diseases whose tendency is to recovery. But he is less brilliant when pitted against croupous pneumonia, laryngitis, croup, œdema of the glottis, angina pectoris, acute gastritis, cholera, peritonitis, hepatitis, apoplexy, meningitis, tetanus, typhus fever, yellow fever, smallpox and diphtheria, for these are dangerous diseases.

He is restless and feels the prescience of defeat, though still dosing the adversary largely, when it comes to a conflict with the chronic diseases, such as general paralysis, paralysis agitans, phthisis, epilepsy, progressive loco-

tor ataxia and Bright's disease. He is obliged to sit down to a regular seige before all the diseases which, though acute at first, have become chronic in spite of all his drugs. For disasters like these he has numberless excuses—as that the patient was already debilitated, he contracted a cold, there were complications, an unmanageable diathesis was awakened. And then come the incurable diseases, such as gastric ulcer, carcinoma, cirrhosis of the liver, acute atrophy of the liver, and chronic diffuse nephritis. In the presence of these the most inveterate dispenser of drugs, seeing the death warrant, patent to all eyes but his who must suffer and endure, must stand humbled amid his pots and vials. He must, else, pour his libations in vain.

And is it not singular that drugs should be esteemed so powerful in the acute, self-limited diseases, and yet in the chronic types, where the opportunities for their potency is so prolonged, they should fail so signally?

As knowledge accumulates, this or that drug of the fathers, which was wont to be so irresistible in fevers, in imposthumes, or what not, is laid upon the shelf. We now know and can demonstrate that it was utterly useless, and yet the patient often got well! Every physician who has been spared to a great age can look back upon pharmacies ever changing. On the Ariel-wings of memory he can glance into a thousand sick rooms and sniff the odors of drugs no longer known. They had their day and the fashion changed.

Men couldn't be soundly cured without calomel, once, and veratrum viride was a later triumph. Cod liver oil was once the Utopian remedy for phthisis. And it is astonishing how even an enthusiastic therapist can always find the improvement his horoscope has forecast. But in fact he is only the antipode of the specialist who

is never known to examine a subject who has not something wrong in his line of business. Dr. Wood, in the fourth edition of his *Practice of Medicine*, 1855, gives what may be taken as the average view of the physicians of the day in regard to the benefits of cod liver oil in phthisis, for the old professor was never rash, but we shall find that his opinion was tinted by the prevailing sentiment. "It does not act as a specific," says he, "and is wholly incapable of producing, by any direct influence of its own, the removal of the deposited tuberculous matter. But it invigorates digestion, improves the character of the blood, and by a peculiar power modifies the nutritive process so as to obviate in a greater or less degree the tendency to the deposition of tuberculous matter."

Now I question whether it is the experience of any scrutinizing physician to-day that cod liver oil invigorates the digestion; if it did, it would be the remedy par excellence, for the natural history of the disease in question shows that the fatal result is at length brought about by the gradual undermining and impairment of the appetite and digestion, which, once destroyed, the whole fabric collapses. And of all animal substances given to a healthy man, we shall find the injection of fats furnishes the most serious problem for the functional processes of the stomach and intestines. Now, long before J. Hughes Bennett voiced the popular impression that the origin of phthisis is due to defective fat-digestion, it was the unwritten law that strumous indigestion and the indigestion of fats were synonymous terms. And not even a knight-errand in medicine would now deny the connection of the indigestion of fats with the strumous diathesis. The healthy stomach that has not been appalled by sweets and sours, and fats and leans, hot fluids and ices, dry wines and sparkling, and all the menu of a

modern dinner of state, may also digest cod liver oil mixed with ordinary food, but if more than a moderate amount is added the digestion becomes deranged with all the hideous symptoms dyspeptics are so fond of confiding. What then of the stomach already far gone? Would you load a staggering porter with a few pounds more every time he faltered past you, on the theory that it would improve his strength?

When I was a student in the university and hospitals in Philadelphia, solutions and syrups of bromide of potassium were the popular tippie for all sorts of diseases, and quinine became the universal panacea for the laity just as it was losing ground with the profession, but the coal tar derivatives are pushing all others to the wall. The chemists would seem to have gone mad in their laboratories and to have applied the match to a new system of fireworks, so bewildering are their nimble coruscations of saccharine, pyrocin, hydroxylamine, methacetin, thalin and exalgin. But the sparks die out as suddenly as they astonished, and many of them are already forgotten.

When it comes to this, that most of the self-limited diseases will get well without drugs, that some of the acute diseases with unfavorable complications got well in the previous generation and in the centuries gone, under the prescription of drugs now known either to have been inert or misapplied, and when we recognize the fact that within five years the medical journals teemed with encomiums of new drugs which are already superseded by others, which in their turn are getting a little passe, the confused physician may well exclaim with the dazed political vivand: "Where am I at?" He might feel his faith seriously shaken when he recalled how sadly he had been duped by the old pharmacologists and the organic chemists of the hour.

When we regard the fact that the earth everywhere, unless depopulated by merciless greed, is teeming with animal life in the highest state of perfection, which has been evolved from parent to parent through unmeasured æons, and that in his savage state man himself, until corrupted by his civilized congener, has been found to be of fascinating feature and vigor, we must admit that drugs have not been necessary to perpetuate and strengthen the races. And when we reflect that, though the complex forces of civilization have induced a variety of diseases, many of them are preventable and many of them self-limited, and therefore to be got rid of without drugs, and that the chronic forms of disease resist drugs, and that upon the whole the bills of mortality have not been lessened by them, we must conclude that our profession has given altogether too much prominence to the apothecaries' art and raised expectations in the minds of the ill which cannot be realized. Further, it has set upon them hordes of charlatans, which, like evil birds, batten upon human miseries. It is time that we should reform ourselves and convince the public that there are higher potencies than the therapeutical superstitions that we have dealt out to them. We detest and execrate the priesthood for driving a shrewd trade with the bones and relics and other useless lumber of the saints, but we have unconsciously set up a barter of a like kind, and need to have our temple scourged of the money-changers, too.

I am aware that it will be urged that the average physician of to-day is much more wary in the use of drugs, and that upon the whole, smaller doses prevail and greater discrimination is exercised. I have heard, too, that the world has grown better, wars less numerous, man more concerned in raising his neighbor than in raising himself on his neighbor. But I note that the sentinels of

old empires grimly regard each other across the borders; that Justice in the South is not only blindfolded, but has her hands tied willingly behind her back; that the saloon domineers our politics; that the shadow of the prison falls across the threshold of the temple. And I know that in 1889 there were imported into this country \$13,186,290 worth of drugs, used in medicine, and that the succeeding years have not shown a less amount. I know, too, that there has been no inverse ratio existing between the pharmacies and the physicians. In an essay on this topic in 1889 I showed from the statistics of commerce and navigation of the United States for the year ending June 30th, the gross amount in pounds of the chief drugs used in practice which were imported to that date. I have just received from the Secretary of the Treasury the volume containing the statistics of the importations for the year ending June 30, 1892, and I find the following startling items:

Quinia Sulph.....	2,686,677	ounces.
Cautharadics.....	10,446	pounds.
Balsam Copavia.....	206,011	"
Aloes.....	255,394	"
Assafoetida.....	125,557	"
Ipecac.....	38,329	"
Jalap.....	112,601	"
Manna.....	49,335	"
Ergot.....	125,148	"
Cubebs.....	115,974	"
Nux Vomica.....	1,392,437	"
Opium (9 per cent. morphia).....	587,121	"
Rhubarb.....	118,874	"
Salacine.....	5,152	"
Morphia, and all salts thereof.....	42,301	ounces.
Calomel and other mercurial medical preparations.....	12,630	pounds.
Alkaloids and alkalies to the amount worth	\$827,230.	

Certainly, no one can complain that there will not be enough to go round! Every mail is turgid with the pleas of manufacturing druggists. Our daily papers and the religious weeklies are insidiously padded with the advertisements of cure-alls. Postal cards, like so many tormenting gadflies, are pestering the sixty odd thousand physicians of America with the information that this or that compound is the only safe remedy for lung, kidney or brain diseases. And these drugs do not pass into innocuous desuetude—they are used somewhere. Whoever has had the curiosity to read the minor medical journals that he might know what is going on in the under world, must have been struck with the therapeutic greed of the writers—practical fellows who go scrambling crabwise over pathology to seize proprietary mixtures which are labelled to cure all the ills under the evil planets. The quacks grown wary, having been beaten off the field by the tremendous reinforcements in the medical ranks, return to vend their wares to the physicians themselves.

I have searched a large number of the pamphlets and medical journals of all classes during the past three months, so that I might note the therapeutical extremes in this quarter of the latest year of the closing century. Brown-Séguard and his disciples are patiently engaged in the injections of organic liquids. He is not rejuvenating octagenarians with spermatin so frequently and successfully as at the first blush, in 1889, but he records here and there in a dreary waste of experiments that extract of the thyroid gland injected into somebody with myxœdema has metamorphosed the patient. Constantin Paul and Prof. Babes are transfusing extract of the gray matter for neurasthenia. Injections of the extract of pancreas are being tried for diabetes. In diseases of the heart, injections have been made with the extract of

cardiac muscle. Dieulafoy has tried injections of extract of kidney on a man affected with uremia. Dr. Paul Gibier kindly announces, through a contributor in his own journal, that he has tried extract of cat muscle in cases of progressive muscular atrophy after failure with other methods, and gracefully adds that, "he will probably report later on this subject." Dr. William H. Hammond, with fine insistence, appropriates all except the hint from Brown-Séquard of this fantastic pharmacology. He has made alkaloids of the different organs and portions of the ox, and proposes to do away with all other drugs and cure and renew like with like, giving an eye for an eye and a tooth for a tooth, like the Hebrews of old, while he opens up new fields to the apothecaries beyond the dreams of avarice. The medicine will come dear, but so all things do in art, and it is the simplicity and ready applicability of the remedies that must recommend them. Dr. Hammond questions whether among all the teeming brains that have swelled and broken on the shores of time, such a solution of the vexed question of therapeutics has ever presented itself, though dimly conscious that he may have heard of some old German who speculated on the probable results of giving a liver diet to men diseased in the liver.

What pain it is to a great inventor to find that his speculations were distilling long ago in the alembic of another's brain! And yet so active have been men's minds that there are few things said, done, or conjectured, but that the spark was struck forth in immemorial days. "Eighteen very old men," said Theodore Parker, "could touch hands back to the birth of Christ," and in my researches into old books I never yet found one that did not allude to some book more ancient still, and to names

of scholars of dates still beyond, whose monographs and treatises have clean moldered away in the crypts of time. As far out from the central darkness of the Middle Ages as the seventeenth century, I find in Schroder's Chymical Dispensatory, 1669, that the physicians of his day, upon the same hypothesis that Hammond has proceeded, and Brown-Séquard before him, used the different animal glands and tissues in medicine for the cure of distempers in corresponding parts in man. The work of Culpepper, 1653, gives some recipes for preparing fox lungs into a loloch for the cure of asthmas and inflammation of the lungs, and he recommends duck livers as being exceedingly strengthening to the liver. But Schroder, whom Cullen respectfully criticises as an authority in his day, is more elaborate in his treatise and quotes from Crato, Baubin, Jordan, Libavius, Crollus and others, now no longer obtainable, as I am told by librarians whom I have consulted. In his fifth book, Zoology, he treats of that "Part of Pharmacy that shews what Medicines are to be taken from Animals," and he gives, with anxious concern, explicit directions for the choice of animals that "have no diseased dispositions," and orders that they shall be killed by external violence to the end that "the medicamental substances of everything fit to act shall be without diseases and full of wholesome tinctures."

For the relief of impotence in the man, or sterility in women, he recommends the testes of the boar, and quotes Schwenkfield as an authority for the use of the same glands from the stag for a similar purpose. For diseases of the liver he urges the use of the liver of the calf, the hare, the wolf and the fox. The spleen of the calf and of the fox, he asserts, will cure diseases of the spleen, and lung diseases are benefited by medicines made from the lungs of the fox. Drachm doses of the powder of wolf's

intestines would cure colics. The dried uterus of the hare "taken after the terms would help conception." For weakness of the bladder he directs a sheep's or goat's bladder to be calcined and given.

In the first and second books of his Dispensatory he gives at great length the methods to be employed in preparing these animal drugs for exhibition.

But more daring than our modern therapeutists, he deals with the body of man himself, as being so much good material for medicine that it should not be wasted on a final resurrection, but should be raised up in the living body of those who languish. The physicians of the day employed in their practice the following parts and excrements of the living body of man: The hair, nails, saliva, perspiration, milk, secundines, spermatic fluid, the blood, and things unmentionable. And from the dead body, the flesh, the skin, the oil, the bones, the brain, gall and heart. The hair was said to breed hair, and a distilled liquor was made thereof, with honey, for the purpose. The sweat, seeing that it exuded from the glands, was good against scrofula. The secundines, calcined and given in southernwood water, cast out moles and children dead. From the semen was made a magnetic mummy to cause love, and, as Schroder quaintly puts it, "Paracelsus makes his little man thereof." The blood, drunk hot, cured epilepsy. Applied to nose or skin it stopped hemorrhages. An oil extracted from it cured consumptions. A balsam was made of it to cure the gout. Dried gently and impregnated with spirit of lemons or vitriol, and made into troches with myrrh, it cured carbuncles.

The brain of a young man under twenty-four, who had died of violence, was taken by the chemist, with all its membranes, arteries, veins and nerves, and beaten in a

mortar; to this was added the waters of tile flowers, piony, bettony, black cherries, lavender, lilly-convals, until it was covered four inches. After standing awhile it was distilled and became "a brave antepileptick." Salt added to the brain, and the whole distilled in a glass retort in the sand, was used to strengthen the living brain. He tells us "if we would have more medicines made from man we should read the particular Tractate of Becker, in Quarto."

But Dr. Shoemaker, of Philadelphia, less aspiring, could, if he would, cure anything with Kola nut. Kola nut, chemically considered, contains about 2.3 per cent. of an alkaloid analagous to theine or caffeine, 0.023 per cent. of theobromine, together with tannic acid, sugar, albumin, cellulose, starch, fat and fixed salts. Mild enough, but with this Shoemaker had excellent results in migraine, the acute pain soon subsiding, the vomiting was relieved, and the patient entering upon a convalescence slow as usual, but more rapid than he had expected. (Now migraine naturally takes an increasing course until vomiting occurs, shortly after which the patient is relieved and usually falls into a sleep, from which he awakes free from the headache)

In the case of a girl of sixteen, whose condition was due to excessive school tasks in a hot, ill-ventilated room, without outdoor exercise. Kola brought about an entire change. Under its use, and withdrawal from school, she soon regained a good appetite, her headache left and she became able to sleep at night, and, as he delicately puts it, "she now has the courage to pass a certain portion of every day in the open air." (All of which would have occurred on the girl's withdrawal from school if the Kola nut had been still in Africa.)

But he did not pause after these triumphs. He got

good results from Kola in melancholia, neuralgia, ulnar neuritis, spurious locomotor ataxia, gastro-intestinal irritability, irregular heart, tuberculosis, dyspepsia, gastro-enteritis, renal irritation—in fact he had a whole Philadelphia drug store in a Kola nut! He even cured boils with it, after he had first evacuated the pus! If I have done this unconscious humorist wrong, I can but recommend Kola nut to his attention.

A sturdier faith never prompted any man to hug the iron that wounded him than appears in Dr. J. S. Whitmire, of Metamora, Ill., who for the cure a cerebral rheumatism took black cohosh, iron, quinine, strychnia and iodide of potash every four hours, together with phosphate of soda and tincture of digitalis every six hours. In one month he had taken one hundred and eighty drachms of cohosh, three grains of strychnia, one hundred and eighty grains of quinine, three drachms of iron, nearly two pounds of the phosphate of soda, besides his digitalis and iodide of potash. He then went to bed and changed his drug diet to ergot, gelsemium, hyoscyamus and citrate of potash. At the end of ten days, having got no relief, he was put on extract of manaca, citrate of potash, strychnia, quinine, iron and cactus. Being no better at the end of fifteen days, ergot was added and citrate of lithium. In two weeks more he was convalescent, and at last accounts he was tapering off on iron, strychnia, quinine and hydrodic acid. Here, evidently, was a man who had nursed himself on poisons from his infancy, and in his cheerful old age he could have lain down among vipers and have defied the Borgias.

I might quote largely from minor sources—of the New York young man who gives continued doses of citrate of potash, sweet spirits of nitre, acetate of ammonia and in-

fusion of digitalis to a man who has not urinated for ten days, and at length, under the influence of a consultant, introduces a catheter for the first time, and finding no urine, changes his therapeutic tactics; of the practitioner who gives to a lady in Chicago, for follicular tonsillitis, within an hour, ten drops of tincture of belladonna, three drops of tincture of aconite and two five-grain doses of antipyrin, and then, because the patient declared herself morbidly susceptible to the influence of quinine and begged that he should not give that to her, too, he proceeds to order a morning dose of it. Hastily summoned at 8 A. M., he as hastily concludes that the belladonna rash has been caused by his one grain of quinine. For no apparent reason, except for psychical purposes, he now gives her ten drops of tincture of nux vomica and goes home to exploit his feat in a medical journal. But I shall refrain from further illustration, only observing that this sort of dosing is going on on all sides of us.

For, from times immemorial men have believed in some preternatural power in drugs; even the occult sciences have been invoked to assist in clouding any process of reasoning on their qualities. Every this or that was under the dominion of some planet, which infused into it the virtues or vices of the heathen god under which it flourished. But, whatever the drug, it had its inevitable rise and decline. As thus, from Culpepper, 1553, of the *Amara Dulcis*: "It is under the planet Mercury, and a notable herb of his also, if it be rightly gathered under his influence. It is excellently good to remove witchcraft, both in men and beasts, as also all sudden diseases whatsoever. Being tied round about the neck, it is one of the most admirable remedies for vertigo or dizziness in the head; and that is the reason (as Tragus saith,) the people in Germany commonly hang it about their cattle's

necks when they fear any such evil hath betided them. Take notice it is a Mercurial herb, and therefore of very subtile parts, as indeed all Mercurial plants are." As far on as 1815 I find records of the esteem in which therapeutists held the amara dulcis. It would "remove felons, open obstructions of the liver and spleen, help difficult breathing, bruises and falls, and remove congealed blood in any part of the body, besides being useful in yellow jaundice, black jaundice and dropsy."

At the close of the nineteenth century we are too ennuied to smile at the myths of ancient theology, and the god Mercury has lost his grip on the dulcimara, but it is still recorded in our therapeutics as a remedy "for cutaneous eruptions, for chronic muscular rheumatism, chronic bronchitis, whooping cough, and other chronic pulmonary affections, but," it is added, "it must be long continued to produce curative effects." Many patient drug-swallowers must have believed themselves in process of time to have been cured by this drug of their chronic invalidism, to the sedate gratification of the long-winded physicians who prescribed it. But, note you, in the seventeenth and eighteenth centuries it cured sudden diseases, while for seventy-five years back it has only been good for chronic diseases, and now it is rarely given, so low has its popularity waned. And in recent years Dr. John Harley laboriously experimented upon man with its expressed juice and tinctures, in small doses and in large, without any appreciable physiological effect whatever.

Would that as much could be said of many another drug that is wont to be used in season and out of season, for some of them in unguarded hands exert as desperate effects as the diseases they are reported to cure. The largely increased use of ergot in uterine disorders, and its

long continuance in special cases, must bring about its physiological effects in time. A lady who came under my care had taken the fluid extract in drachm doses on certain days in each month for two or three years, under the advice of a physician in a neighboring city, until she at length had feeble digestion, impaired vision, menorrhagia, increasing languor, slow pulse and respiration, and an abnormally low temperature. When the drug was prohibited she gradually recovered, during as many years, from its deplorable effects.

How many physicians know anything of the natural course of most diseases except by hearsay? How many have had the courage to observe for themselves while sternly combating the seductive opportunity of prescribing a variety of unnecessary medicines? Most diseases, as they are met in practice, are so overlaid, disguised and their symptoms colored and mingled with the effects of drugs that have been administered, that only a mongrel type is known to the profession. The skilled and philosophical consultant views the case ascant until he inquires what drugs have been prescribed.

Quinine, though fallen from its high estate, and passing into the hands of the laity as an universal panacea, is still given frequently by the profession for a variety of disorders. It is given promptly, largely and even hysterically in congestive intermittents, but its physiological effect is to cause the face to become suffused, the pupils dilated, the pulse accelerated, with coma and sterterous breathing. How shall we divine between these lethal effects of disease and drug? Few recover from the congestive intermittent and few recover from poisonous doses of quinine.

How often is gelsemium prescribed in neuralgias, congestions of the brain and in sthenic febrile diseases, and

yet even minute doses of this drug have caused alarming symptoms—the face becomes congested, the pupils dilated, the respiration slow, the brain dizzy, and death not seldom follows.

Copaiba is a favorite remedy with most physicians in vesical catarrh, but the continued use of copaiba renders the urine darker and turbid, and irritates the bladder, causing micturation and sometimes hæmaturia.

Typhoid fever persists, ferocious, undeviating, in spite of the fifty odd drugs prescribed by the variety of physicians in attendance on a given number of cases. Some of the patients lie muttering under the spell of alcohol, some in extreme hebitude of mind lie dazed under the swooning influence of enormous doses of quinine, some lie weltering in the perspiration induced by antipyrin, but all who do not die beforetimes continue to be prey of the riotous fiend just the same as if no powerful drug had been administered. And yet who dare aver that active medication does not imperil the sick man's chances?

Think of the saturnalia of drugs that has been administered for the relief and cure of hysteria! Æther, amber, amyl, assafœtida, camphor, castor, dracontium, galega, musk, narcissus, succini, parthenium, lead, bromides, primula, ruta, houseleek, mustard, rosmarj, sumbul, tansy, linden, and thirty more. In the main all useless, for where isolation, psychic treatment, hydrotherapy, mechanotherapy, and perhaps electrotherapy, fail, outside of the valerianates and three or four other drugs, the whole host beside but aggravate the paroxysms. The better the diagnostician, the simpler the prescription. The physician, confused by the disease, defends himself with a confusion of drugs. The less confidence he has in himself the larger the army does the general gather

about him, desiring to crush by numbers where skill cannot avail.

There is a disease that ravages the earth and many a plumed knight has gone forth to conquer it, and has been himself conquered in turn. It selects its victims in hovels and in palaces, and gloats equally upon the beggar, the prince, the dullard, the artist and the poet, the lady with the camellias and the sewing girl in her garret. Its stealthy tread is not only in country by-ways, but it walks unseen in the populous mart. It destroys more lives than any other disease, not excluding the pestilence of cholera. Like that dread Angel of the Judgment, it enters all families, chooses, and is gone. So softly has it stolen that not even the parent is aware, and the solicitous lover sees only a more ethereal beauty in the face that is soon to become but a memory in his soul. Her face is flushed with kindlings of eternity, and her eyes grow large and lustrous and fixed in their pathos, as though she held reveries with unseen bands. So rapt is she that she feels not the cruel fangs upon her vitals, and were it not for the low cough that betrays the demon at his sacrificial feast, we, too, should be deluded into thinking that the tuberculosis had abandoned his victim.

We try a hundred schemes to balk him and to rout him from the field. Iodoform, aniline, thymol, ozone, corrosive sublimate, hydrofluoric acid, inhalations of carbolic acid, creosote, iodine, eucalyptol, turpentine, sulphurous acid, chlorine, sulphuretted hydrogen; intrapulmonary injections of iodol, camphor-carbolate, naphthol, gnaicol; the introduction of the bacterium termo to war upon its natural foe, the bacillus tuberculosis; Liebrich's injections of cautharidinate of potash; subcutaneous injections of goat's blood, dog's serum; Koch's tuberculin and Brown-Séquard's fluid. (*Shrady.*) But the end is

the same. Unless we resort to the ameliorating influences of climate, after all is done, we have tortured in vain

I am aware that there are members of the profession who frequently give medicine not so much from a belief that the patient's disease demands it as from an astute sense of the fine moral effect it has, for their own benefit, on the man's friends. There are people who would be clamorously dissatisfied if a relative with an incurable disease should not be well dosed on his descent; very much after the fashion of staid old sectarians in out-of-the-way neighborhoods, who would be scandalized if one should go to heaven without benefit of clergy. And then, too, it is a convenient masque to a perplexed spirit to be industriously giving something when the case is not understood. The doctor's dignity of knowledge is not questioned—he is hard at work dosing the obstinate sick man—all must be right! “When I have a case I do not understand,” confessed an old New York professor, “I give iodide of potash.”

If the souls of civilized men on their last journey were suddenly rehabilitated in flesh and marched before skillful judges it could be told in large measure to what doctors these one-time patients had belonged. One drove would be found branded with tincture of iodine wherever there had been a swelling or a pain. Some would have been snipped in their noses by the perfunctory laryngologist. Here would come a platoon wearing plasters; another sopped with poultices; a third would have been blistered most cruelly by the inexorable quidnuncs that attended them. Drunkards, with skins stabbed thick with Keeley's motors, would go reeling by. Women without ovaries. Troops of sad wretches slain by fever, their stomachs corroded with a diversity of drugs. Hos-

pital patients yet swathed in bandages, from experimental operations on hopeless diseases. Epileptics, hideous from bomism. Paralytics, yet quivering and gyrating, scarce escaped from the electrician. The wan victims of phthisis eloping in a mist of sprays by day and pursued by hypodermic spearmen at night.

For, after all these interminable centuries of dosing and the ultimate skill arrived at in the profession in the selection and application of the drugs, there is no difference in the mortality rate of most diseases from what it formerly was. The death-rate for New York city in 1892 was 24; and during the week ending April 1, of the current year, it was 33.2. And for the year ending June 30, 1892, it was, in cities of over 5,000 population in New Jersey, 24.81 per thousand. In an estimated city population of 870,985, there died below twenty years of age, 11,217 individuals, or one-seventieth of the entire population.

Surely, here was the strongest incentive of our art to rescue the bud and promise of the race, and I doubt not but that physicians were zealous and apothecaries calculated as they compounded, while the cold, pathetic Azriel lingered, but drugs could not stay this crusade to the tomb. And upon an individual analysis of the fatal diseases in the state for the year ending June 30, as aforesaid, I find that 1,008 died of scarlet fever, 1,776 of diphtheria and croup, 3,575 of consumption, 5,187 of acute lung diseases, 2,242 of brain and nervous diseases of children, 2,457 of adult brain and spinal diseases, and 1,625 of digestive and intestinal diseases. And the number of deaths from the chief preventable diseases was 11,720. Altogether there died 32,685 out of a population of 1,511,653, or, in other words, about one forty-sixth of the entire population died last year. If it

were not for the foreign influx, where would New Jersey be in less than a generation, for the deaths exceeded the births by 2,058, in spite of the pharmacopea?

But if this prodding stirs some saturnine brother to resentment, and he cries out testily: "What, then, have drugs done no good? Are they all equally fallacious and dangerous? How are we going to practice medicine without them?" I must return that you have a very inferior idea of the profession, indeed, if doctors are only to be pill venders. That drugs have done good when wisely applied goes without question. We know that opium assuages pain, the salicylates conquer rheumatism, phenacetin eases headache, pepsine assists digestion, and that men in all the diseases have been comforted by the apothecary's art. But the mortuary lists of the Board of Health can furnish no monument to the living. It was Dr. Billings' conclusion in his lecture on Vital and Medical Statistics, in 1889, that "although the expectation of life is greater, yet this is only true of the earlier ages. After a man reaches twenty, his expectation of life is less than it was fifty years ago, for the reason that more persons of feeble constitution are now nursed to manhood. The decrease in the general mortality is due to better care of infants and the prevention of contagious disease. So far as statistics show, it does not appear that there is any difference in the mortality rate of most infectious diseases from what it used to be. Or, if there is any difference, it is one which may be attributed to the special character of the epidemic, or the age and constitution of the people."

This being true, what are we going to do about it? The lives of the world are submitted into our hands. We have drugged the populace well and they have not profited by it. Like great magicians, we have juggled

with drugs and have professed to cast out diseases with pellets and fumigation, but we have not assumed the sublimer attitude of striking at causes. Are we to be like a swarm of lawyers and churchmen, forever following precedent—invited forward by great enterprises, but plucked backward by ghostly hands? Here and there a lonely reformer appears, but there is no unanimity of the profession. The people are apathetic because they have not been instructed. Governments are deaf because we ourselves have never been impressive.

In those ideal commonwealths, Plato's Republic, Sir Thomas More's Utopia, Bacon's New Atlantis, Campanella's City of the Sun, the art of medicine was given an inferior place, while the lawmaker was exalted to the chief station. What a botch the lawmaker has made in real life may be read in the uneasiness of all lands. But there is a growing anticipation as to the exalted mission of our profession which is not confined to race or creed.

Whether the rise and fall of great civilizations is like the lifting and subsiding of monster waves, where all at length becomes a dead, smooth sea, and where at best only a certain exaggerated undulation under the stress of fugitive storms is possible, or whether mankind, like a race of Titans, sometimes descends into hollows and caverns or camps on the edges of deserts for an age, while it renews its strength for fresh encounters, and climbs again a higher range and wrests the secrets of nature from the taciturn lips of rocks and under the cold stars wrestles with the jealous angel of the Lord, like Jacob of old, and holding fast to the divinity conquers its blessing, time is yet too young for us to tell.

But if we might indulge in lofty anticipations, which the progress of this century would seem to justify, we

might in our own particular art conjecture that the day will come when physicians, as a body of public men, will be the true generals of the commonwealth. To them will be consigned the preservation of the nation, the fighting and eradicating of the microscopic enemies that menace more lives and destroy more victims than all the standing armies of the world. And where a few thousands are now grudgingly dolled to the science that seeks to foster the lives of men, while millions are voted annually to the art that is trained to destroy, the scale will be reversed and the public purse will be opened with alacrity to the aid of the enterprises of the guardians of the race, while the army will be cut to the smallest stipend.

No one disputes now the right of the state to conserve the public health by establishing quarantines, hospitals, asylums, the regulating of travel and commerce from ports of infection, and the general jurisdiction in sanitary affairs. It is a function that will in time assume vast proportions, and must come under the immediate control of the physicians of the commonwealth.

Under such a regime we may expect that these officers of the state will order the affairs of the citizens so that no man shall live for private greed, but, as in ancient Sparta, each man shall conclude that he was born not for himself, but for his country.

And under all their labors to eradicate infectious diseases, to enlighten the people in sanitary living; their removal of the tuberculous, the asthmatic, the rheumatic, to proper climates; their modeling of tenements, inspection of food, regulating of marriage, these graver minds will read that part of our literature with amused contempt and pity, where learned societies waste their time in disclosures and debates as to the rival claims of

this or that drug, or combinations of drugs, in the cure or relief of yellow fever, diphtheria, scarlatina, typhoid fever and cholera, instead of striking at the root of these scourges, and with an overwhelming diction forcing the public conscience to the only sensible remedy—the banishing of them altogether from the face of the earth.

