

## TRICHINOSIS.

At a recent meeting of the French Academy of Medicine, M. Brouardel read a paper relative to the recent trichinosis epidemic at Emersleben in Germany, he having been detailed by the government to investigate the occurrence. He stated that the cause of the disease was traced to the flesh of a hog which had been chopped fine, and of which a large number of people had partook, spreading it upon bread as if it were cheese. Between the 12th and the 19th of September 250 persons were taken ill, of whom 42 died; in the neighboring village of Deesdorf 42 were affected, of whom 9 died. On the 19th of September, the rest of the chopped meat having remained unsold, the butcher mixed it with a fresh lot and sold it at the town of Nieubagen; here 80 persons were attacked, though less seriously than the former, and none died.

At the beginning, the nature of the disease was misunderstood, it being considered as a diarrhoeal cholera, either of spontaneous origin or due to the poisoning of sausages. The true cause of the disease was recognized only at the eleventh hour. M. Brouardel set out to determine whether the time intervening between the killing of the hog and the consumption of the meat had any influence upon the virulence of the disease and the time of its appearance. He found that the noxious qualities of meat containing trichinæ diminished according to the ratio mentioned. Those that partook of the meat six days after the killing were still sick, but none died; whereas in the case of those who ate the day following it, fatal symptoms were rapidly developed.

The main question of danger from trichinosis lies in the preparation of the meat. Every one of the victims had eaten it *absolutely raw*. A single family that had cooked the meat in the shape of sausage, on the 15th of September, showed not the slightest indications of disease. It showed that the affected meat was rendered harmless by cooking to a degree even which might at first have been considered entirely insufficient. Another mode of prevention consisted in giving the consumers of the suspected meat a certain dose of alcohol, and the favorable action noted by the attending physicians is ascribed to its influence.

He remarked in conclusion that, in view of the German habit of eating meat raw, there was some justification in prohibiting the importation of American pork into Germany; but as regards France, where such habits do not exist, he doubted the advisability of the preventive measures to exclude American pork.

## THE PATENT COMMITTEE'S ERROR.

One of the strongest safeguards of movable property lies in the fact that stolen goods are not readily salable. The market for stolen property is spoiled or greatly restricted by the circumstance that in law the receiver is as bad as the thief, and the innocent possessor of stolen goods is likely to lose the purchase money, if he does not get into more serious trouble, when the rightful owner's claim is made good. For a large class of patented inventions meeting popular needs this proper safeguard has been their chief safeguard. The infringing manufacturer is usually irresponsible, and the unauthorized vender cannot be found when the infringement is discovered; but the fact that the wrongful user is also liable has made prudent men cautious in dealing in such things; and enough men are prudent to diminish materially the profits of infringers and so discourage the dishonest from making over-free with the rights of others.

In asking Congress to take away this element of protection, hitherto accorded by the law to property held under patent rights, the Patent Committee allege that they do so on the ground that it has led to grievous abuses. There has been, they say, much complaint of hardship arising from the practice of owners or pretended owners of patents in allowing infringements to go on for a term of years, and then sending around agents to demand damages under threats of lawsuits, to the distress and loss of many innocent people. This is the only excuse given for legislation exempting the user of infringing manufactures, and confining the penalty for infringement to the maker and vender only. That the excuse would be inadequate, if true, has been amply shown in these columns. But is it true?

In what part of the country and in connection with what patents or pretended patents have the alleged abuses occurred and complaints arisen? And what proportion do the alleged complainers bear numerically to the fifty million people who in every sphere and walk in life are constantly surrounded by and dependent for occupation, income, convenience, or necessity upon articles patented or manufactured under patent rights? Have there come to the ears of the committee one complaint from each hundred thousand patent users, in connection with one in each thousand patents? And what proportion do the pretended hardships bear to the hardships complained of through disputed ownerships of other species of property?

If every person overreached, or who should think himself overreached and damaged, in a horse-trade, were to complain to Congress, the annual list of complainants would be a very long one; but that would scarcely be held a valid reason for legislation destroying or impairing all property rights in horses.

The truth is, the pretext for the recent action of the House of Representatives, in connection with suits for infringement, is essentially a false one. There has been no general practice of the sort alleged; from the nature of men and things there cannot be. As a class, patentees are not eager for law-

suits; indeed, suits at law are relatively fewer in connection with patents than with any other species of property of equal scope and value. And the proportion of all the patent suits that could by any forcing be brought into the class complained of by the Patent Committee must be and is extremely small. If pretended owners of patents harass people by threats of suits for infringement, the proper course is to turn the offenders over to the local authorities for punishment, as in the case of all other petty swindlers, and not punish all patent owners for the crimes of a few pretenders to patent rights.

It is not denied that there have been cases—marvelously few, though, in view of the number of patents issued, and the important part which patents play in the industrial world—a few cases in which patentees have been kept from the enjoyment of their rights by litigation, usually against powerful infringers, until other infringers have come to believe that the patentee had no rights or would never be able to enforce them; and then, after a struggle more or less prolonged, the patentee's rights having been established, they have proceeded to claim damages for the unlawful use of their invention. Sometimes the offenders have been morally innocent through ignorance; but more frequently they have discounted the chance of ever being called to account, and after infringing wantonly have complained of hardship when their miscalculation has reacted to their hurt.

It is, however, not this class of complainants whom the Patent Committee ask to have protected, but the victims of those who purposely allow the use of their inventions simply to gain ground for subsequent blackmailing operations under threats of lawsuits against innocent offenders against the law. The possible justice of the committee's requests hinges upon the existence of a considerable class of such evil-minded patentees. With all respect to the sincerity of the committee, we may say that evidence is lacking of the existence, or the possible existence, of such a class; and consequently there is, on the committee's own showing, no ground for legislation such as they have asked for and obtained in the House.

The only hope that patentees can now have of protection against the proposed invasion of the rightful privileges they have hitherto enjoyed, lies in the superior knowledge of the Senate, both as to the facts of the case and the conditions under which a large part of the productive industry of the country has been established and is maintained. Senators can scarcely fail to see that the pretext of the House committee, if founded on real hardship and actual complaints, would not justify so grave and costly a remedy, while in the absence of such foundation the proposed legislation is utterly destitute of reasonable, even plausible, grounds to rest on.

## MODERN AND ANCIENT RAINFALL.

In discussing recently the question whether we were in danger of a permanent and increasing reduction of our available water power, a question of most vital importance, we were forced to conclude that no such peril was imminent, and that the scarcity of water so troublesome for two or three years past in New England and the adjacent States was merely local, and would be but temporary. It is however well worth our while to look further. We may find reason to believe that changes are in progress, though moving too slowly to be detected within one or two generations. Our rain records cover but comparatively a very few years, but there are records to which we can refer, going back several thousands, and they tell a different story from that which our brief national history seems to show.

We do not refer in this to geological evidence, though that is by no means to be disregarded, for it is manifest that vast areas of the earth's surface were formerly covered with water which has passed away solely by evaporation. Changes in elevation have raised the continents and thus forced the ocean back into narrower limits, but those changes are of a different kind. Areas of inclosed water owe their continued extent to the relative amount of evaporation and precipitation, and nothing can be more certain than that, in some instances at least, such areas have been in steady progress of contraction since certainly the close of the Tertiary age, this steady contraction being perfectly consistent with fluctuations which might continue many years each.

Two illustrations only are sufficient. The basin of the Aral-Caspian (for the two are to be counted but as one) gives us one. Humboldt says: "The desiccation which is unquestionably going on in the basin of the Aral Sea . . . is in no way dependent on any violent revolution in the order of nature." Major Herbert Wood of the Royal Engineers says that "there is no doubt of the former vastly greater extension of the combined Aral-Caspian Seas, and extremely little as to their former connection with the Polar Ocean."

The other we find on our own continent. Every one traveling on the Central Pacific Railroad has had the opportunity to see for himself that the Great Salt Lake of Utah has formerly covered a vastly greater extent of surface than it does now. The terraces which its waters have left all along the flanks of the Wahsatch Mountains, at elevations of thirty to fifty feet and more above its present level, are as plainly to be traced as any railroad embankment, a state of water which would flood a vast area.

But these manifestations we take only incidentally, for we know nothing of the amount of time involved in them. If we can find, however, that the same changes have been in progress within the time which we can measure by definite years, then these geological records become to us of immense importance, since they show a persistence of effects and

causes that must certainly depend on natural laws, and may be expected therefore to continue in steady action now and for all time to come.

No matter what views we may take of the origin of the human race, it is manifest to all that the oldest of all indications to which we can refer, written, monumental, or traditional, are mostly grouped around the eastern limits of the Mediterranean Sea, with the countries to the northeast beyond. We look in the dim light of extreme antiquity to the regions around the Euphrates and the Tigris. The Assyrian Empire is to us the embodiment of the very earliest days. Its power swayed all the southwest of Asia, and it was because it had a thickly peopled domain. Dr. C. Fraas says: "The most fruitful land of antiquity was, as is well known, the region bordering on the Lower Euphrates and Tigris, and in particular that called in later times Mesopotamia. But as Richter says, the land of great canals is now desert and barren, without settlement, and a dried up wilderness—covered with a growth of the plants peculiar to a saline soil, and all this where once was the 'garden of the world.'" Mr. Blanford, chief of the India Geological Survey, writes of Persia: "From the accounts given by ancient writers, it appears highly probable that the population was much greater and the cultivated land far more extensive 2,000 years ago than at present, and this may have been due to the country being more fertile, in consequence of the rain fall being greater."

Captain Burton says: "The once wealthy and commercial land of Midian has become a desolation among the nations; the area of some three thousand square miles, which thirty-one centuries ago could send into the field 135,000 swordsmen, is abandoned to a few hundreds—half peasants, half nomads." Once more, when the Israelites, in their exodus, came up on the east side of the Dead Sea, the whole Plain of Bashan was swarming with inhabitants. It was dotted over with walled towns, with intervals of but a very few miles in any case. The towns are there now, but where are the people? A few wandering Bedouins roam here and there, but the cities are "waste, without inhabitants." The land is in no way able to support the population which three thousand three hundred years ago lived in prosperity. We may not deny that various causes have contributed to this decadence—moral, social, political, but the one which has been engaging our attention is of itself imperative. "Ichabod" has been written on the land, for its glory has departed with the rain.

And so we might go on; the same truth is shown everywhere over Asia and Europe and the north of Africa. But we will look at only one other single line of evidence, and that shall be among the ancient people of America. We will come nearer in space and probably nearer in time, though how much nearer we do not know. It is well known to all that in many parts of New Mexico and Arizona are found extended proofs of the former occupancy of that country by a people certainly distinct from the Indians of modern type. They have long since passed away; how long since we can only conjecture. But their houses remain—some of them single, some in villages and towns. Some are in the valleys, some on the mesas far above the valleys, while many are real cliff dwellings, recalling in their situations the homes of Edom.

The one point which at present interests us as to these ruins is this: no one now can live where they were built, simply from the *lack of water*. Dr. Bessels, speaking of those along the Hoven Weep, says: "There is no running water whatever during the greater part of the year." Mr. W. H. Jackson, describing those on the San Juan, states that "there is not a living stream throughout this whole region." Capt. Simpson, in his report to the Secretary of War, detailing those he saw along the Rio Chaca, says: "The country, as usual, on account, doubtless, of constant drought, presented one wide expanse of barren waste." And yet over all that stretch of country was manifestly found long ago an abundant population.

It is evident, therefore, that then rain fell in much larger amount than now; and, inasmuch as there is nothing to indicate any sudden change, it is reasonable to infer that the change has been gradual, and hence that it may be still in progress.

One item of interest is worth mentioning as being a collateral proof of such a condition. Through all the region northward thence—New Mexico, Arizona, Nevada, and Utah—the tree growth (which is very limited) gives one constantly the impression that it is about to come to an end. The nut pines, for instance, all look old; there is scarcely such a thing as a young tree to be seen. The bare, ragged branches seem as though they might have battled the storms for hundreds of years, but could scarcely do it much longer, and then when they were gone there would be *nothing left*.

All these facts apparently make one indication, and though any local droughts, even if protracted over several years, may be of small moment, yet the evidence comes strongly to us that a gradual desiccation of the earth's surface is in progress, and that this proceeds from causes not connected in any way with human agency, and of course not under human control.

BARON NORDENSKJÖLD is understood to be contemplating as his next adventure in exploration a voyage to the South Pole in 1885. This expedition would cost at least \$1,000,000, as a ship of special type would have to be built for its purposes.