

NEW TREATMENT FOR CANCER.

The London *Lancet* calls attention to an important series of investigations conducted at the Queen's hospital, Birmingham, as to a new method in the treatment of cancer, by Mr. John Clay, professor of midwifery at Queen's College. Hitherto this terrible disease has proved incurable by medical treatment; but the inquiries and experiments conducted by Mr. C. lead to the belief that by the use of Chian turpentine—which he has been the first to use—cancer can be not only arrested, but cured, without a surgical operation.

Mr. C.'s paper was published in the *Lancet* of March 27th. He recommends his treatment especially in cases of cancer of the female generative organs. He says that he had made extended trial of various remedies, both general and local, but at last concluded that if cancer could be cured it must be by medicine administered internally, and must be of such a nature that it could be taken for a long time without affecting special functions or general nutrition. A study of the pathology of cancer led him to the opinion that a carbo-hydrate of some kind might prove beneficial, and for several reasons he decided that Chian turpentine might prove the most suitable. An opportunity was soon presented. A woman aged 52, came to the hospital with cirrhus cancer of the cervix and body of the uterus. Hemorrhage was excessive, pain of the back and abdomen agonizing and cancerous cachexia well marked. The patient evidently had not long to live. In such a case it seemed justifiable to attempt to relieve the sufferings of the patient, even if the remedy should produce unfavorable symptoms, or should prove of no avail. I therefore prescribed Chian turpentine, six grains; flowers of sulphur, four grains; to be made into two pills, to be taken every four hours. No opiates were prescribed nor lotion taken. No change was to be made in her diet or occupation. On the fourth day after taking the medicine the patient reported herself greatly relieved from pain, and was in better spirits, but she complained of a large amount of discharge. It was feared that she referred to a discharge of a sanguineous nature. On examination, however, the vagina was found to be filled with a dirty, white secretion, so tenacious as to be capable of being pulled out rope-like, and this, although she had syringed herself three hours previously. The medicine was continued for 12 weeks with excellent results and every appearance of a cure being probable. At the end of that time she suddenly left the town and left no address.

The second case was that of a younger woman, aged 31. In this instance the cancer appeared to be melted away by the turpentine in four or five weeks.

Mr. Clay reports several other cases in which remarkable benefit evidently resulted, with every prospect of permanent cure. Some cases have been cancer of the breast, abdomen, etc. In a case where the turpentine could not be digested in pills, it was made into an emulsion by Mr. Whitfield, dispenser to the hospital, as follows: An ethereal solution of Chian turpentine was prepared by dissolving 1 oz. of the turpentine in 2 oz. of pure sulphuric ether (anesthetic). The ether dissolved the turpentine instantly. Of this solution, 4 oz.; solution of tragacanth, 4 oz.; syrup, 1 oz.; flowers of sulphur, 40 grains; of water to 16 oz.; 1 oz. three times daily.

Mr. Clay remarks that "ordinary oil of turpentine, if it produces any effect on cancer, is inadmissible on account of the speedy production of its specific effects, even when administered in small doses. The same remark applies with less force to the Venice and Strasburg turpentines; in my hands they have not produced the same beneficial effects on cancerous growths as the Chian turpentine has done. The maximum dose of the last named drug, which can be safely and continuously given, is 25 grains daily. It is advisable to discontinue the remedy for a few days after 10 or 12 weeks' constant administration, and then to resume it

as before. The combination with sulphur was given at first, and has been continued. It is doubtful whether much benefit is derived from the combination, but the effects have been so uniformly good with it, that it was thought advisable to continue its use. There is every reason to believe, from the trials made with other substances in combination with the turpentine, such as carbonate of lime, iodide of calcium, ammoniated copper, quinine, bebeerine, hydrastin, etc., that the turpentine is best administered simply, as the most marked and rapid effects have always been manifested when it has been given alone.

"The turpentine appears to act upon the periphery of the growth with great vigor, causing the speedy disappearance of what is usually termed the cancerous infiltration, and thereby arresting the further development of the tumor. It produces equally efficient results on the whole mass, seemingly destroying its vitality, but more slowly. It appears to dissolve all the cancer cells, leaving the vessel to become subsequently atrophied, and the firmer structures to gradually gain a comparatively normal condition.

"It is a most efficient anodyne, causing an entire cessation of pain in a few days, and far more effectually than any sedative that I have ever given. In the cases I have described no sedative was employed in any instance, although in some cases where great pain had existed previously to commencing the treatment, large doses had been given. Whether this arrest of pain arises from the death of the tumor, or, as my son suggests, is due to there being no longer irritation of the sentient nerves (in consequence of tension being withdrawn by the removal of the cells), the fact is the same."

PERNOT STEEL.—A correspondent in Johnstown writes as follows: Pernot steel, until lately, has been known in this country only by name, but its manufacture has been commenced this year, on a large scale, at Johnstown, Penn. As is well known, the Siemens gas regenerators have been utilized for making open-hearth or Siemens-Martin steel, and also for melting crucible steel, but their application to this new improvement threatens to supersede both grades. The quality is fully equal if not superior to crucible steel for most purposes for which that has been used, and the expense of manufacturing decidedly less. In each furnace is a pan that can contain 20 tons of steel, which is revolved by a connection with the engine employed for that purpose. After the pan is charged, the gas flames playing over and around it bring the contents to the desired state of fusion, while the revolving of the pan causes the most intimate intermixture of the ingredients; thus overcoming the objection to melting steel in larger receptacles than crucibles. The operation is completed in a little more than five hours. The only concern that furnishes merchant steel made by this process in the United States, is the Gantier Steel Co. Limited. They are preparing to furnish 40,000 tons per annum of this grade, which will be almost entirely additional to their present production.—*American Manufacturer, Philadelphia.*

TO DISCOVER FLAWS IN SHAFTS OR DEFECTS IN WELDS.—The *Blacksmith and Wheelwright* in referring to this subject says that if a piece of iron appears to have an unsound weld, or if it has a crack apparent upon the surface and it is desired to know how deep it penetrates, heat the part to be tested to a red heat and pour a fine stream of water upon the faulty spot, but mainly on one side of it, and the iron on that side will lose its redness more rapidly than the other side, and plainly indicate how deeply the defect extends.

SCIENCE AWARDED.—The French Academy of Sciences has awarded an extraordinary prize of 3,000 francs to Dr. William Crookes, in recognition of his distinguished services to science by his studies in molecular physics, and his contribution to our knowledge of the properties of radiant matter.

FOSSIL BUTTER.—At a late scientific meeting in London, Prof. Church read a paper on a sample of butter, which must have lain for many centuries, buried in an Irish bog. Its probable age was judged to be about one thousand years. The sample contained nearly four per cent. of curd, which consisted partly of vegetable matter derived from the bog, but contained quite enough animal matter to prove that the butter had been originally made from animal milk, and was not a mere artificial fat. Its fatty character had, however, been entirely changed, and the glycerides of which the fat had originally consisted had been decomposed so as to leave simply a mixture of the fatty acids, which constitute the acid portion of animal fats. The butter had, in fact, become changed into a substance closely resembling in character and composition the substance of which good composite candles are composed. The result is singular, as showing that length of time, combined with exposure to moisture, will effect the decomposition which the manufacturer of stearine has to effect by the agency of heat and acids. At the same meeting another paper was read on a sample of still older butter, which had been taken from an alabaster vase in an Egyptian tomb. It had evidently been melted and poured into the vase, and carefully sealed over. This sample was probably about 2,500 years old, but the preservation had been so perfect that it was only slightly rancid, and had fully retained the chemical properties of genuine butter, the fats not having been decomposed to any sensible extent. This sample possessed a decided taste and smell of butter, while the sample from the bog was cheesy rather than buttery in smell.

A SHEEP-WORRYING DOG BURYING ITS PREY ALIVE.—Many sheep and lambs have recently been worried on sheep farms in the neighborhood of Dundee, Scotland. An unusual method of sheep worrying was recently perpetrated on the farm of Pickstone, tenanted by Mr. Campbell. One morning a lamb was heard bleating in one of the fields on the farm, and, as no lamb could be seen on a casual inspection, a more careful search was made, when it was found that the bleating proceeded from a lamb that was buried in the land, the only part left exposed being the head. It was at once evident that this had been the work of a dog. The lamb was taken out, and was, strange to say, little the worse of its burial. A diligent watch was instituted, with the result that the depredator—a collie dog—was captured in the act of burying another lamb, which was also alive.

A NEW PHENOMENON OF MAGNETISM.—It is well known that the ratio between the residual and the temporary magnetism of a bar of steel enveloped by a magnetizing coil diminishes as the bar becomes shorter and thicker. Aug. Kight was led by theoretical considerations to a conclusion which is opposed to the ordinary phenomena, but which experience has confirmed in every particular. It is this: If we take bars of the same steel and of the same diameter, but of diminishing lengths, we finally reach a length which shows no magnetization, and with still smaller lengths, we obtain a residual magnetism which is opposite to that of the coil.—*Comptes Rendus.*

SLEEPING IN STORES.—The *American Grocer* sensibly objects to persons sleeping in stores. The store may be clean and well kept, yet these things combine to make an impure atmosphere, which even a tolerable ventilation will not do away with; even a tolerable ventilation most country stores don't have. "We tested the matter for several years, and don't think our health was at all improved by the experiment."

SPECTACLES BY MACHINERY.—It is said that there is but one establishment in this country for the manufacture of spectacles by machinery, and that is located at Reading, Pa. The glasses are not only ground by ingenious machinery run by steam power, but the frames and all the processes needed to complete the spectacles are wrought by mechanism.