noted:—Great fulness of the vessels of liver, stomach, and omentum, especially of the vessels of the cardiac half of the stomach looking blackish through its mucous and peritoneal coats. Uterus healthy and unimpregnated, and an agglutinated appearance of the omentum to the subjacent parts; all other viscera appeared healthy. The stomach was then removed, both ends being tied, and a section was made into it in the presence of the coroner, when the whole of the inner surface of the mucous membrance and subperitoneal covering was seen to be more or less intensely congested, of a dark, almost black, colour. The stomach and its contents, together with some vomit, which had been secured on the day of death, and preserved by Dr. Lowe, were handed over to Inspector Dove for transmission to Mr. Fairley, the analyst for the North Riding. The larynx and trachea, down to its bifurcation, was examined. It contained a small portion of semi-fluid material, apparently vomit from the stomach, probably post mortem. False teeth were noted fitting to the upper jaw. *There was no corrugation of the tongue, or inner surface of the mucous membrane of the mouth, and no appearance of the action of a corrosive upon the lips, fauces, or mucous membrane of œsophagus.* The dress, which had been worn, was not then examined by us.

The following is Mr. Fairley's report:—

"I have subjected the stomach, with adherent fluid and solid matter, to careful chemical analysis. Their total weight was about ten ounces (avoirdupois). A portion of the stomach (about two ounces) contained compounds of antimony, equal to 1·68 grain of metallic antimony, and a smaller quantity of arsenic, amounting to about 0·02 grain; so that the entire stomach contained at least eight grains of antimony and 0·1 grain of arsenic. Eight grains of antimony are equivalent to nearly forty grains of tartar emetic and to nearly fifteen grains of chloride of antimony—quantities much in excess of a fatal dose for an adult person. These compounds are the most common soluble forms of antimony. Arsenic is frequently present in compounds of antimony as an impurity, but the poisonous action in this case is mainly or actively due to antimony. The contents of the stomach have also been subjected to analysis. The same poisons were present in very large quantities, which would have been more than sufficient to cause death if directly administered. There was therefore absorbed in the tissues of the stomach a quantity of antimony much in excess of a fatal dose when taken in a soluble form; and also in the contents of the stomach a quantity of antimony which had not been absorbed into the body, but which would have been amply sufficient to cause death had it been so absorbed. The symptoms and appearances, as stated to me by Inspector Dove and by Drs. Lowe and Cooke at the post-mortem, agree with those which have been noted in previous cases of poisoning by compounds of antimony."

Christi-on says in "Treatise on Poisons," p. 486: "It is rarely met with as the cause of poisoning, and scarcely deserves notice here were it not that its effects differ widely from those of tartar emetic and other antimonials."[1] Taylor[2] has collected three cases of poisoning with it which show that it is a powerful corrosive and irritant. In two of these cases recovery took place, the dose in one being four or five drachms taken by mistake for gingerbeer, and in the other a similar quantity was taken by mistake for antimonial wine. The third case was that of a surgeon, who took intentionally between two and three fluid ounces, and died in ten hours and a half afterwards. The whole inside of the alimentary canal was black and charred from the mouth to the jejunum, and the mucous membrane seemed to have been removed along the whole of the extent of the canal, and the submucous and peritoneal coats were so soft as to be easily torn with the fingers. Orfila mentions only one, and that an instance which occurred more than 200 years ago. Pereira, Traill, and Caspar mention none, Guy only those recorded by Taylor. On referring to "Neale's Medical Digest" (New Sydenham Society's latest edition), which covers a space of more than thirty years past, there is no mention of any case of poisoning by "butter of antimony." Woodman and Tidy recount the cases before alluded to, and some others, differing, however, from the Ruston case in material points. The nearest approach in point of time is one recorded in their analyses of cases, strange to say, by a namesake of mine, the late Mr. Weeden Cooke.

Peculiarities of the Ruston Case.—First, the rapid death from the time the poison is presumed to have been swallowed, at most *in less than two hours afterwards.* Secondly, the absence of charring or corrosion of the mouth, fauces, and œsophagus as compared with the post-mortem appearances of the mucous membrane of the stomach, which was dark and livid, almost black. The poison was probably swallowed immediately after the meal, and possibly the alimentary passage was in great measure protected from its action (on its way to the stomach) by the greasy food which had just been taken.

Butter of antimony is used for the treatment of foot-rot in sheep, and can be easily procured from any druggist or oil and colourman for that purpose. The now prevalent use of it among farmers for foot-rot may lead to more frequent cases of poisoning by this compound of antimony in the future, unless its sale be restricted or placed under more stringent police regulations. The evidence of the husband showed that he had no knowledge of its poisonous properties.

The Government have recently declared, through Mr. Mundella,[3] their intention to introduce "a Bill for the Amendment of the Sale of Poisons Act," which will include provisions respecting the sale of so-called patent medicines of a poisonous character. It is to be hoped that the attention of the Legislature will be called to the importance of placing some restrictions upon the sale of butter of antimony, which it appears is a highly corrosive and dangerous poison. I am not even aware that butter of antimony is scheduled under the list of articles deemed poisons, though tartar emetic, a far less powerful irritant, is so classed.

Dr. Pritchard (the poisoner) at one time lived at Hunmanby and Filey in this neighbourhood, and I became acquainted with him. I have been told by an agent of one of the wholesale druggists that he was in the habit of purchasing compounds of antimony (notably tartar emetic) in large quantities, for what purpose may be inferred from the diabolical use which he made of it among the members of his own family after he had removed to Glasgow. It is within the knowledge of one medical man, at least, in this locality that the treatment of his patients was very unsatisfactory, and their illnesses were generally of a protracted character. When a consultation was proposed the patient usually died; the inference being that tartar emetic was systematically employed for his vile purposes. I have sufficient evidence, apart from that by which he was convicted when on his trial for the murder of his wife and mother-in-law, to show that his unscrupulous use of compounds of antimony, through which he ultimately was brought to the gallows, need scarcely be matter of surprise.

My warmest acknowledgments are due to Dr. Wood (the coroner), to Mr. Fairley, and to Dr. Lowe, as well as to Dr. Thomas Stevenson of Guy's Hospital, for the kind assistance they have rendered me in the examination and investigation of this case.

Scarborough.

[1] Of the preparations of antimony, emetic tartar and butter of antimony are the only salts of this metal which have corrosive properties. The former when taken in overdoses is generally rejected by the stomach.

[2] Manual of Medical Jurisprudence, p. 209.

ON THE IMPROPRIETY OF THE

INVERSION OF PATIENTS IN APPARENT DEATH FROM CHLOROFORM, DROWNING, ETC.

BY HENRY R. SILVESTER, M.D., B.A. LOND.

THE LANCET of March 10th contains an interesting article by Dr. Eben. Watson, of the Glasgow Royal Infirmary, entitled "Remarks questioning the Propriety of the Inversion of Patients in the Chloroform Syncope," in which he submits on physiological grounds that this proceeding is injurious to the patient, in the first place, because it has a tendency to increase the engorgement of the right side of the heart and large vessels, a condition which is known to exist as one of the most striking effects of the employment of anæsthetic agents; secondly, that this practice is useless as a means of forcing on the general circulation, for, as everyone knows, the blood must pass through the right side of the heart and through the lungs before it can be sent to the body gene-

[3] See Hansard, Mr. Mundella, March 9th, 1883 The Bill will be introduced in the House of Lords.

rally; but since the heart is powerless to act on account of the difficulty which exists in the lungs, the further congestion occasioned by the inverted position of the body merely aggravates the existing evil; and, thirdly, that the venous blood in the neck and arms which gets to the brain, in consequence of the depression of the head, only deepens the coma which already exists. Now, there is no doubt that the treatment of drowned persons by inverting the body is very ancient. The attempt to restore from drowning by inverting the body is depicted on the Egyptian monuments. The exploits of Rameses the Great in Assyria are represented in the sculptures on the tomb of Osymandyos; some of the defeated enemy are carrying the corpse of their chief, who was drowned in the river Euphrates, and are in vain endeavouring to restore life by holding the head downwards to expel the water which was believed to have entered the body. It is probable that this kind of treatment continued down to comparatively modern times; for in the year 1774 the Royal Humane Society ordered that the body should not be carried on anyone's shoulders with the head hanging downwards, nor rolled upon the ground, nor over a barrel, nor lifted by the heels, and it is added that "these methods are injurious, and often destroy the small remains of life." Seeing, then, how injurious and apparently useless this method of treatment appears on physiological grounds, may it not have been revived with another object in view—namely, that by this means the heavy vapour of chloroform might be thus poured out from the lungs by gravitation? It is, however, very doubtful whether the vapour of chloroform, still less that of ether, at the temperature of the body, can be ejected from the lungs in this way, for some time since I performed a series of experiments in order to ascertain whether it would be possible to remove water (which is much heavier than the vapour of chloroform) from the lungs of drowned persons (supposing for the sake of argument that it had gained admission there) by placing the body in any of the positions which have been recommended for the attainment of this object. I injected small and large quantities of water into the lungs through the windpipe by a forcing syringe, and then endeavoured to remove it by placing the body in various positions, such as reclining on the face, rolled from supine to prone, held up by the feet, &c., but without success, although there was less difficulty with regard to fluids in the stomach; but this is not of much consequence, as the water swallowed is usually vomited on the return of consciousness.

In the treatment of the apparently dead the following positions of the body have had their advocates—namely, resting horizontally on the face, on the side, on the back, alternately prone and supine, inverted, sitting up, bent forwards and bent backwards. Dr. E. Watson recommends the "supine and horizontal"; but experience appears to teach that the most suitable position is that of lying on the back, the body inclining a little from the feet upwards, the shoulders and head slightly raised and supported on a firm cushion. This position is favourable for the relief of congestion of the heart and head, and both sides of the chest are free to expand, and this affords the best chance of restoration from apparent death.

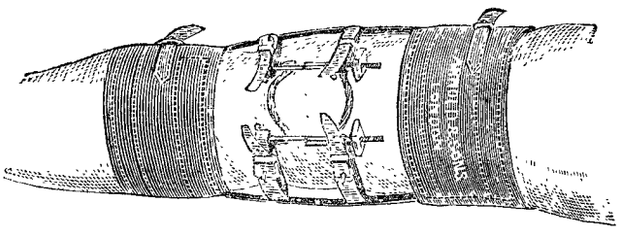
Clapham Common.

ON REFRACTURE OF THE PATELLA.

BY H. PARSON, M.R.C.S., L.R.C.P. ED.,
ASSISTANT MEDICAL OFFICER, ROYAL SURREY COUNTY HOSPITAL.

PERHAPS the following particulars of a case of refracture of the patella, together with a description of the appliances used during the treatment, may be of interest to some of your readers.

In December, 1874, Mr. —— fractured his left patella at the junction of the upper and middle thirds. In October, 1880, he fractured the same bone at the junction of the middle and lower thirds; and in August, 1882, he refractured the left patella at the seat of the last injury—viz., at the junction of the middle and lower thirds. This last accident occurred August 6th whilst staying at Amsterdam. He was seen by a local surgeon who applied suitable splints, and the patient started for England on August 8th, reaching his home on the 9th. I was called in on the 11th and found considerable swelling over the joint with about three-quarters of an inch of separation between the fragments; the amount of separation which existed directly after the accident I could not ascertain. The lower fragment was small and very movable. He was wearing a leather splint with side supports to which were strapped two semilunar soft leather pads. By drawing the pads together and fastening them I got the fragments into close apposition, and the patient continued to wear this contrivance until the primary inflammation had subsided. I then devised the appliance of which an illustration is here given, and which is manufactured by Messrs.



Arnold and Sons of West Smithfield. It consists of two semilunar pieces made of some round, narrow, unyielding material, shaped to fit the edges of the lower and upper fragments. One piece slides on the other and admits of closing and separating them by means of screws and without any other movement; so that, when adjusted and firmly strapped to the side supports of a suitable splint prepared for it, the upper and lower pieces are perfectly rigid one with the other. It is then almost impossible for the patella to slip out of position. The semilunar pieces being narrow, they form grooves for themselves behind the fragments, and have a tendency to run under the bone instead of over-riding as most other appliances do; thus the pieces are kept firmly in good position in their proper plane and have no tendency to tilt. This apparatus was applied about the end of the third week from the date of the accident, and the patient removed to the couch. At the end of the fourth week he came downstairs with assistance, and went out in a Bath chair. At the fifth week he walked round the garden with the aid of sticks. At the seventh week he walked a mile with one stick. At the end of the eighth week he returned to business, walking to and fro, that is, two miles daily. He could walk well wearing the appliance, and experienced very little inconvenience, and to the best of my knowledge the fragments never slipped once during the twenty weeks that he wore the splint. The pressure was relieved at times by small tufts of cotton-wool, and by wearing an old splint at night, but during the latter part of the time nothing was worn at night, thus abrasions from continued pressure were avoided entirely.

The patient now walks well, and is not particular as to distance, but still wears a contrivance to support the knee-cap and limit the movements of the joint. The advantages claimed for the appliance are these:—

1. As soon as the primary inflammation has subsided and the apparatus firmly and properly adjusted, the patient can begin to move about, and in a short time follow his usual business pursuits.

2. The long confinement to bed is avoided; thus the patient retains his health and strength, and the condition is more favourable to the repair of tissues.

3. Easy adjustment of fragments and the keeping of them in good position, without fear of slipping when the patient is walking.

4. The slight movement of knee in walking prevents a stiff joint, and keeps up sufficient activity in the parts to complete the union.

Lastly, but not least, as far as the patient is concerned, the reduction of the "doctor's bill," as he will require much less attention.

I consider the case here mentioned to be a good test case for trying the merits of the invention; for if the surgeon can secure a good union in a refracture and under such adverse circumstances, surely the results will be far superior in the case of primary fracture.

Guildford.

AN inquest was held on the 14th inst. at Newcastle-under-Lyne touching the death of Mr. Richard Corston Wade, surgeon, formerly of Manchester. The deceased was, it appeared from the evidence, in the habit of taking laudanum. On the 12th inst. he took a larger quantity than usual and fell into a comatose condition from which he never recovered. The jury returned a verdict that "Death was caused by an overdose of laudanum."