efficiently would not be less than one hundred days, allowing ten hours of labour each day.

The costs of the work in Merthyr are £8 a-year paid to the Registrars of Births and Deaths, an allowance not exceeding £10 a year to the medical officer for the purchase of books, instruments, chemicals, stationery, and for the printing of the annual report, and the medical officer's salary of £100 a year; giving a total of £118. You will understand that the medical officer's services are not remunerated at their commercial value.

Secondly, as to the nature of the work which will be required of the Health-Officers of the future. As yet, this has not been officially defined, and, therefore, I would earnestly press upon my medical brethren generally not to be too hasty in tying themselves to undertake labours of which they do not know the extent and character.

The Local Government Board have announced that rules and regulations to be observed by local authorities (desiring pecuniary aid in payment of the salaries of Health-Officers and Nuisance Inspectors) are being prepared: it would, therefore, be prudent if both authorities and medical men would wait until those rules shall have been made public. This is more especially necessary, since the Inspectors appointed by the Central Board will have large means granted them to enforce the efficient carrying out of the sanitary laws.

All these are subjects of congratulation to those who have the well-being of their fellow countrymen at heart; and it is to be hoped that the responsible chief of the department, in selecting those divisional officers, whose duty it will be to advise, assist, instruct, gently press, or cogently reason with district authorities, will not be tempted humbly to initiate a practice which is said to have prevailed in the Grand Duchy of "Nebel-und-Regenstein"; where "*it had long been admitted, that the necessity for knowing anything about the functions one might be called upon to discharge, was an exploded fallacy.*"

Outline of Report upon the Sanitary Condition of ———, during the year ———, by ———, Health-Officer.

Duties of medical officer as defined by local authority.

Chap. I.—Numbers, etc., of the Population, Geology, Watershed, and Aspect of the District; Natural Divisions thereof; Habitations of the People; Rainfall, Temperature, etc.

Sect. 1.—Population; area of district.

Sect. 2.—Ages and civil conditions of people.

Sect. 3.—Sanitary topography of whole district, and of divisions, etc.

Sect. 4.—Habitations of the people, characteristics as to site, structure, dampness, ventilation, drainage, etc.

Sect. 5.—Common lodging-houses, houses let in lodgings, slaughter-houses, markets, etc.

Sect. 6.—The weather, rainfall, temperature.

Chap. II.—Water-supply, Food, Wages, Pauperism.

Sect. 1.—Water-supply; quality and quantity, etc.

Sect. 2.—Prices of chief articles of human food, and adulterations thereof.

Sect. 3.—Wages of labouring population, in each of the particular classes of labour in district.

Sect. 4.—Number of paupers relieved.

Chap. III.—Statistics of Marriages, Births, Vaccination, and Deaths.

Sect. 1.—Marriages.

Sect. 2.—Births, legitimate and illegitimate.

Sect. 3.—Vaccinations.

Sect. 4.—Deaths from all causes in whole district.

Sect. 5.—Ditto, ditto, in each division of district.

Sect. 6.—Ditto from each class of disease in whole district, and in each division of district.

Sect. 7.—Ditto from epidemic contagious disease in each division of district.

Sect. 8.—Ditto from tubercular diseases in each division.

Sect. 9.—Ditto from lung diseases, etc.

Sect. 10.—Ditto from accidents.

Sect. 11.—Ditto of illegitimate children.

Sect. 12.—Ditto in union workhouse, gaol, or hospital.

Chap. IV.—Sanitary Improvements, etc.

Sect. 1.—Sanitary works during year.

Sect. 2.—Sanitary works needed.

Sect. 3.—Practical working of sanitary laws.

Sect. 4.—Amendments desirable.

Summary.—Comparisons of rate of Increase or Decrease of Numbers of People; Increase or Decrease of Rate of Marriages, Births, Deaths, Causes of Increased Mortality (if any); Remedial Measures necessary for Removal of Causes, etc.

Appendix.—Table showing Causes of and Ages at Death from each Class and Order of Disease.

Form of Weekly Return to be made by Subdistrict Registrars.

District of Merthyr Tydfil. Subdistrict of ———. Return of Number of Births and Deaths during the week ending Saturday, the ——— day of ———, 18—. Births: Legitimate, M., —, F., —, =—; Illegitimate, M., —, F., —, =—; total, ——. Deaths: Male, —, Female, —, =—; total ——. (The Medical Officer will be glad to have this return every Monday.)

Particulars of Deaths Registered in the week: Register No.; when died; residence; names; sex; age; occupation; causes of death (1, 2); duration of diseases (1, 2); certified or not, or inquest.

RESEARCHES

ON

THE MECHANICAL DILATATION OF THE CERVIX UTERI, AND THE APPLIANCES USED FOR THE PURPOSE.*

By J. MATTHEWS DUNCAN, M.D.,

Physician to the Royal Maternity Hospital, and Lecturer on Midwifery in the School of Medicine, Edinburgh.

PRACTICAL REFLECTIONS.

THE first point to which I would call attention, that arises out of the preceding investigation, is the question, What force is required to dilate the cervix uteri in gynaecological and obstetrical practice? Now, in order to answer this question, it is necessary to point out that, in order to reach a measurement by experiment, we must exclude the element of time as much as possible, because lapse of time permits the introduction of other influences besides force—influences which we may meantime designate vital, and which show themselves by producing spasm and tightness, or relaxation and yielding. Spasm and tightness may be left out of consideration, because they do not mar the mechanical view of the subject; it being a fair object of experiment to find what mechanical force is required to overcome the spasm or tightness, however produced. Relaxation and yielding, however, cannot be left out of consideration, for they may take place through vital actions, and without any application of distending force; and, indeed, I shall easily show that this is the case.

In gynaecological practice, the only good example that I can give of the force exerted in producing dilatation is that required, at a sitting, for the passing of a bougie; for here the shortness of the time used excludes vital relaxation or yielding, or nearly excludes it. Now in practice I have found that the dilatation of the external os uteri and of the cervical canal to the extent of 1.50th or 1.25th inch in diameter requires very little force—so little, that, considering the rough methods of measuring that can be applied, I think it best not to attempt exactness.

Dilatation of the cervix uteri is generally resorted to in practice with a view to relieve or cure spasmodic dysmenorrhœa, or to remove sterility. For these purposes, dilatation of the external os and of the canal of the cervix is probably of no value. The practitioner may think it worth while to try the dilatation of the internal os uteri. If he do this by a conical pointed bougie, he will find distinct resistance, often powerful resistance, to overcome; sometimes resistance invincible at the time, by any force which he feels himself justified in using. I am satisfied that in cases of great resistance, spasm of muscular fibre is added to natural or mere mechanical rigidity; for the practitioner may find himself able on another day, in the same case, to take the part as it were at unawares, and pass the bougie before the spasm is excited. I have no doubt—indeed, I know from my own experience—that frequently when the resistance is great, the practitioner is deluded into supposing he touches the fundus uteri with the point of the probe or bougie when it has only reached the tight internal os, and has not passed through this part; and this delusion gets some support from the cervix, in these circumstances, undergoing elongation, so that the instrument passes the external os two and a half inches, a length of bougie sufficient under ordinary circumstances to reach the fundus.

The force required to dilate the internal os of the cervix varies greatly in different cases, and in the same case at different sittings; this latter variation in the same case being, I believe, the result of spasm. In a healthy woman, the dilatation by bougie is comparatively easy, and

* Continued from page 516 of last number.

causes comparatively little pain; but in a case of dysmenorrhœa, and in some other conditions, the difficulty may be extreme. I am satisfied that I have frequently applied a forward pushing force at the point of a probe equal to 4 lbs., or even more, and with the wedge or conical pointed bougie a force probably exceeding 200 lbs. on the square inch of surface of part undergoing distension. With this latter instrument, a force probably considerably less is sufficient in ordinary cases to overcome the rigidity. When a great force is applied, the sudden or jerk-like advance of the bougie through the internal os, and the smearing of the instrument with blood, show that the part has not been gradually expanded, but lacerated—an accident which, I think, it is desirable to avoid.

When a tangle-tent is passed through the internal os—that is, along the whole uterine canal—and withdrawn at any time, it shows no constriction (or only constriction at the point where it was encircled by the internal os). This sufficiently indicates, under the light of the experiments here published, that it has enlarged without exerting or overcoming any considerable force. Were any considerable force required to effect dilatation, it would certainly leave its mark upon the tent; and the absence of such mark is conclusive against the tent having at any part met with a considerable obstacle to expansion. Moreover, when we regard the rate at which the tangle expands in water when under no constraint, and the similar rate of its expansion within the uterus, the conclusion is further established.

In cases of spasmodic dysmenorrhœa, a constriction is frequently observed at the site of the internal os uteri even after the tent has remained twenty-four hours in the uterus (Fig. 4). The experiments de-

Fig. 4.—End of a Tangle-tent as withdrawn from the Uterus in a case of Spasmodic Dysmenorrhœa.

tailed in this paper show that a very small force is sufficient to prevent the expansion of a tangle-tent beyond a very slight degree. A tangle-tent expands to a slight degree with a force of sometimes 600 lbs. on the square inch; but the amount of the expansion is very small, and it is nearly as small under much less resisting pressure. A solid tangle-tent immersed in water under a pressure of 640 lbs. on the square inch, expanded from .29 inch to .31 inch; under a pressure of only about 210 lbs on the square inch, it expanded in diameter from .24 to .3—that is, three times as much, yet only .06 inch.

Further, it is certain that a moderate pressure, if continued long, will dilate this internal os; and that no great pressure acts on the constricted part of the tangle is demonstrated by the facility with which the bulbous end of the tangle, as it had expanded in the cavity of the body of the uterus above the internal os, is pulled through the constricted part in extracting the tent. It is probably a morbid state of the internal os of the cervix that gives it power to resist expanding pressure. The tissues of the whole uterus generally behave as in pregnancy, expanding so as to remove the smallest active pressure on its contents, such as a tent, or bougie, or anything else that is in it, and pressing with no active force, or only very slight force. This condition is illustrated by the expansion observed to be produced by a metallic tent, which cannot possibly exert any expanding force.

The conclusion, then, at which I arrive is, that in ordinary cases the tangle does not expand by exerting force, but, a length of time, at least hours, being allowed, through some vital change in the tissues touched. The superiority, then, as an expander, in ordinary cases of a tangle over a metallic tent, lies chiefly in this, that while the metallic tent cannot enlarge to keep up the irritating or relaxing contact which results in expansion, the tangle-tent does enlarge, and follows the expanding tissues and produces further expansion in the same, but now also continuous, manner as the limited amount of expansion produced by a metallic tent is effected.

In cases of disease, such as is illustrated in the condition of the internal os in spasmodic dysmenorrhœa, active expanding force is required—at least if the enlargement is to be obtained within a moderate space of time, say twenty-four or thirty-six hours.

The study of the action of the sponge-tent strongly confirms what I

have said of the tangle-tent. The expanding force of the sponge is very small, acts quickly, and, with appreciable force, only through a very small extent; yet it is well known that this agent, when already partially expanded and exerting almost no force, dilates the uterus with greater rapidity and to a greater degree than the tangle-tent. The sponge has been often said to be used to dilate the internal os in spasmodic dysmenorrhœa, but I am very doubtful of the accuracy of such observations.

In obstetrical practice, the tangle-tent, the sponge-tent, and the India-rubber bag, are all used in different cases, according to circumstances. The same law that regulates the dilatation of the cervix in gynecological practice seems to me to be operative also in obstetrical conditions—that is to say, the cervix opens, not so much mechanically forced by the dilating agent, as relaxing and yielding under the influence of its presence. But in obstetrical practice there is an interesting point of contrast with gynecological; for I have repeatedly found, in peculiar circumstances which I am unable satisfactorily to define, that when the cervix refuses to yield under mechanical forcing, or maintains a persistent rigidity for many, say six hours, it is the external os that presents the unyielding constriction. The resistance to dilating forces seems here, also, as in gynecological cases, to be due much more to spasm than to mere mechanical rigidity. In obstetrical cases of this kind, I have thus had a very exact measurement of a lower limit to the power required to dilate rapidly the rigid external os uteri. The common fiddle-shaped bag distended, and exerting its full force of about 20 lbs. on the square inch, is sometimes inefficient even after six hours of action. But such cases of rigidity found in inducing premature labour are exceptional.

Lastly, the investigations published in this paper may give aid to the practitioner in judging as to the most eligible means of effecting dilatation of the uterine cervix for gynecological and obstetrical purposes. It will be admitted that, *ceteris paribus*, dilatation without causing a wound is safer than, and therefore preferable to, dilatation by cutting or tearing instruments which do wound. This natural opinion is amply confirmed by experience. Again, it will be admitted that dilatation quickly, or by instruments which are not allowed to remain, is safer than, and therefore preferable to, dilatation slowly or by instruments which are left for hours or for a day in the passages. Quick dilatation implies dilatation by mechanical force, or by mechanical force and vital yielding combined; and, to be advantageous, the rapid dilatation should be effected without inflicting a wound. This estimate of the value of quick dilatation seems to me to be also a natural opinion, and I believe it is confirmed by experience.

For these reasons I prefer the use of the bougie in gynecological practice, whenever it is capable of effecting the desired work; and for like reasons and under like limitations I prefer the use of the fiddle-shaped India-rubber bag of Barnes in obstetrical practice.

APPENDIX.—NOTES OF SOME OF THE EXPERIMENTS.

1. *The Tangle-Tent.*—An experiment was made to show the rate and amount of expansion of a solid tangle-tent when placed, without constraint, in water, as drawn from the cistern in July.

Time of immersion.	Diameter.
At immersion	.21 inch
30 minutes	.23 "
1 hour	.236 "
1½ hour	.24 "
2½ hours	.26 "
3½ hours	.28 "
5 hours	.3 "
11 hours	.38 "
50 hours	.56 "

Among several tents tried, that whose measurements are above given retained best its form and smooth surface, and was, therefore, most satisfactorily measured. The others gave nearly similar results, only those of smaller diameter began their expansion a little more rapidly, as might have been expected.

Another experiment was conducted exactly as the former, only in water maintained at a temperature of 98 deg. Fahr.

Time of immersion.	Diameter.
At immersion	.21 inch
30 minutes	.24 "
1 hour	.27 "
1½ hour	.29 "
2½ hours	.32 "
3 hours	.33 "
5 hours	.38 "
11 hours	.47 "
23 hours	.5 "

The accompanying cut explains the construction of the instrument constructed for testing the tangle-tents. The breadth of the part of the

Fig. 5.—Plan of Instrument. *a b a*. Water cistern; dotted line, Upper surface of water; *c d*. The fixed sheath in which moves *e*. The stem of *f*. The tray which receives *g*. The weight superimposed on; *h*. The instrument perforated with three different sized holes to receive the tangle-tents of corresponding sizes. The joint upon which the two limbs move is at *h*; and the holes for the tents are bisected by the line of junction of the limbs.

instrument receiving the tangle, or, in other words, the length of the hole, was one inch.

Experiment 1.—A solid tangle-tent, placed in the largest aperture of the instrument, not quite filling it, but having around it about 1-30th of an inch of free space, when loaded with 8 lbs. in the tray vertically above it, raised the upper limb about 1-20th of an inch a day, a little more on another day, and still a little more on the third day. The whole expansion was very little compared with that in the parts not subjected to compression. The force was equal to about 24 lbs. on the square inch. The number was derived from the applied weight, its leverage, and the horizontal sectional area of the hole in which the tangle was placed.

Experiment 2.—A solid tangle-tent, placed in the middle hole of the instrument, under a pressure of 63 lbs. in the tray, poised on the larger hole, did not in four days elevate it. The pressure on it was equal to 280 lbs. on the square inch.

Experiment 3.—A hollow tangle-tent, placed exactly as the former, only with 42 lbs. in the tray, raised it a little in twenty-four hours. The pressure was equal to 252 lbs. on the square inch. The expansion was to a very small degree.

Experiment 4.—A hollow tangle-tent, placed in the largest aperture of the instrument, with 42 lbs. in the tray, placed vertically above it, was found to have raised it a little in two days, and in another day a little more. The pressure was equal to 155 lbs. on the square inch. The expansion was very slight compared with that in the parts not subjected to compression.

In comparing these results with those which follow, we must remember that the water has by no means such free access to the tangle as in those to be described.

The following experiments were made by encircling tents with India-rubber bands at a given tension, and watching the results of immersion in water.

Experiment 1.—A solid tangle-tent was encircled by successively single, double, and treble layers of India-rubber band 1-10th of an inch broad, at a tension of 3 lbs., and then immersed in water.

Number of layers.	Diameters at time of immersion.	After 24 hours of immersion.	After 48 hours of immersion.
1 layer.....	.36 inch.	.38 inch.	.43 inch.
1 layer.....	.36 "	.39 "	.44 "
1 layer.....	.36 "	.41 "	.432 "
2 layers	.4 "	.41 "	.43 "
3 layers	.406 "	.408 "	.43 "

The greatest expansion observed is from .36 inch to .44 inch, and this under a pressure of 166 lbs. on the square inch. The highest pressure here is equal to 500 lbs. on the square inch.

This experiment shows how little is the amount of expansion under strong pressure, and that for practical purposes it is nearly as great under a pressure of 500 lbs. on the square inch as under a pressure of

166 lbs. on the square inch; but the highest power was only shown after two days' steeping. The number given was derived from the formula, $p = \frac{T}{r}$, where *T* is the tension per lineal inch, and *r* the radius of the section of the tangle.

Experiment 2.—A solid tangle-tent, roughly filed, was encircled by one layer of India-rubber band, 1-10th of an inch broad, at a tension of 1 lb. In twenty-four hours it expended 50 per cent. This by trial indicates one additional pound of tension—that is, 2 lbs. The band now was .1 inch broad, and the diameter of tent with band .36 inch; after further twenty-four hours of immersion, it measured .385 inch. This indicates a pressure overcome of 120 lbs. on the square inch.

Experiment 3.—A solid tangle-tent was encircled by single, double, and treble layers of India-rubber band, .125 inch broad, at a tension of 4 lbs., and immersed in water.

Number of layers.	Diam. at time of immersion.	After 6 hours of immersion.	After 10 hours of immersion.	After 18 hours of immersion.	After 24 hours of immersion.	After 48 hours of immersion.
1 layer	.24 inch.	.26 inch.	.26 inch.	.28 inch.	.28 inch.	.3 inch.
1 layer	.26 "	.26 "	.27 "	.28 "	.28 "	.29 "
1 layer	.26 "	.27 "	.28 "	.28 "	.29 "	.29 "
2 layers	.28 "	.28 "	.29 "	.3 "	.29 "	.3 "
3 layers	.29 "	.29 "	.3 "	.3 "	.3 "	.31 "

This experiment gives a maximum pressure overcome equal to 640 lbs. on the square inch.

2. Sponge-Tent.—**Experiment 1.**—A filed sponge-tent was encircled by an India-rubber band of 1-5th of an inch in breadth, at $\frac{1}{4}$ lb. tension, with successively 1 and 2 layers.

Number of layers.	Diameter at time of immersion.	Diameter after 48 hours of immersion.	Diameter after 72 hours of immersion.
1 layer.....	.316 inch.	.366 inch.	.366 inch.
2 layers	.35 "	.366 "	.366 "

This indicates an utmost force exerted of about 30 lbs. per square inch, and the expansion is very slight in amount.

Experiment 2.—A filed sponge-tent was encircled by an India-rubber band of 1-5th of an inch in breadth, at a tension of $\frac{1}{4}$ lb., with successively 1, 2, and 3 layers.

Number of layers.	Diameter at time of immersion.	Diam. after 1 hour of immersion.	Diam. after 6 hours of immersion.	Diam. after 10 hours of immersion.	Diam. after 18 hours of immersion.
1 layer.....	.35 inch.	.33 inch.	.33 inch.	.3 inch.	.3 inch.
2 layers ...	.36 "	.36 "	.33 "	.33 "	.33 "
3 layers ...	.38 "	.36 "	.34 "	.33 "	.33 "

From this experiment it appears that this tent could not produce a force of 17 lbs. on the square inch; indeed, the pressure of the India-rubber, even when single, overcame the sponge in time.

Experiment 3.—A sponge-tent (not filed on surface) was encircled with an India-rubber band of .15 inch broad, at a tension of 1 lb., with successively 1, 2, and 3 layers.

Number of layers.	Diameter at time of immersion.	Diameter after 24 hours of immersion.
1 layer	.316 inch.	.316 inch.
2 layers	.27 "	.26 "
3 layers	.316 "	.3 "

This experiment shows that this tent could not overcome a pressure of 40 lbs. on the square inch; indeed, the pressure of 2 layers and of 3 layers produced further compression of the sponge.

In all the above experiments, the breadth of band given is that measured under tension.

3. Fiddle-shaped India-rubber Bags.—**Experiment 1.**—The manometer was attached to the pump, in order to find how much pressure it could be made to exert, as worked in the ordinary way by the hand. The pump was a new ordinary India-rubber syringe. It was found to produce a force of a little above 25 lbs. on the square inch, and to be stronger than the bags which it had to distend.

Experiment 2.—The largest of the three ordinary fiddle-shaped bags was connected with the apparatus, as in Experiment 1. The highest pressure reached was when the bag still retained its regularity of form; it was a little above 22 lbs. on the square inch. When the bag was further distended by the injection of more water, it lost its form, bulged out at parts, and the pressure decreased. The highest steady pressure with the apparatus at rest was about 18 lbs.

Experiment 3.—The middle-sized bag behaved very nearly as the largest.

Experiment 4.—The smallest bag behaved very nearly as the others.

DESCRIPTION OF INSTRUMENT USED FOR TALIPES EQUINO-VARUS AND VALGUS.

By RICHARD DAVY, F.R.C.S.,
Surgeon to the Surgical Aid Society.

SURGEONS treating the various forms of talipes amongst out-patients, have been much disappointed at results obtained by the use of the ordinary Scarpa's shoes. I find the screw movements irregular, and especially useless at the very time when most required—viz., at the later periods of treatment, because the screws have reached their maximum range of action. The straps used to confine the foot and heel to the sole are complicated, galling, and ineffectual; with infants, quite inoperative, for these little kicking ones cast their shoes as annoyingly as hunters, and frequently ere leaving the surgeon's consulting-room. The sole of the shoe (when retained) wears out speedily by the friction on ground, and so one of the most natural processes of cure is interfered with.

Before entering into detail, I must thank Mr. Annandale, surgeon to the Royal Infirmary, Edinburgh, for his courtesy in allowing me to see his great ingenuity in mechanisms for talipes; and his arrangements for confining the foot have been essentially copied. I must also express my obligations to Mr. Arnold of Smithfield for his great attention to detail in manufacturing these instruments, which he will show to any surgeon interested in such appliances. Fig. 1 shews the instrument applied to the foot and leg. Fig. 2 shews the boot when removed.

The double irons up the leg, and foot-piece joined to them by hinges

Fig. 1.

at the ankle, are as generally made. These irons are fastened by strap in young children below the knee, but in infants above the knee, in order that a better purchase may be gained. The circular joint at the sole of the foot corresponds to the situation of the astragalo-scapoid and calcaneo-cuboid articulations. Two screws (as shown in the plate) cause (1) the dorsum of the foot to be drawn upwards towards the leg; (2) the anterior part of the foot to be everted or inverted at pleasure. By placing these screws on the inner or the outer aspect of the leg, talipes valgus or varus may be respectively treated. Both screws are worked by a triangular notched key. The boot consists of four flaps: one passes directly over the toes, the dorsum of the foot, and the instep, and effectually confines the heel to the special heel-plate; a second and third, on each side of the anterior portion of the foot, and a fourth the heel, overlap the centre one, and are secured by stout lace passing over special hooks. The sole of the boot is firmly riveted to the iron foot-plates; and these rivets, passing through the sole to the earth's surface, protect the leather and circular hinge from friction during progression.

Fig. 2.

A high compliment was paid to this form of shoe by a first-rate instrument-maker, who said that it was old-fashioned, and that the

movements were by no means so complicated as many that he could show me. Old-fashioned and simple though it may be, it is now in constant use, doing its required work well, and not liable to get out of order by fair usage.

RARE CASES OF SYPHILIS.*

By CHARLES R. DRYSDALE, M.D.,

Physician to the Metropolitan Free Hospital, and to the North London Hospital for Consumption and Diseases of the Chest.

Syphilitic Infection from Smoking a Cigar.—There are now but few to be found who deny that secondary syphilis may be communicated by such means as kissing, or using a drinking-glass; but every case that proves this clearly is useful.

Isaac S., aged 74, came to the Farringdon General Dispensary on July 8th, 1872. The patient had a copper-coloured eruption on the forehead, and spots of syphilitic roseola and psoriasis on the right forearm, hands, etc. A portion of the mucous membrane of the right angle of the mouth was denuded of its epithelium, red, and covered with false membrane; the whole greatly like what is seen in so-called "mucous tubercles" of the fauces. A small patch of similar appearance was seen on the mucous membrane of the left upper lip. There were indurated glands below the right jaw. The patient said that five weeks before being seen, he had first noticed a spot at the right angle of the mouth. This commenced with a kind of blister, and lumps came below the jaw, which still continued hard. A fortnight or three weeks before he noticed the sore at the edge of the mouth, he had picked up a lighted stump of a cigar, just thrown away by a gentleman, and smoked it. A careful examination of the genitalia of the patient, as well as the inguinal region, gave only negative results. The patient's age, 74, the enlargement and induration of the submental glands, and the history of the sore at the side of the mouth, being the first lesion, pointed to the diagnosis made by me; i.e., chancre of the lower lip, caused by smoking a cigar thrown away by a patient in all probability suffering from syphilis.

Syphilitic Roseola, Hemiplegia, and Aphasia.—Patrick W., aged 36, married, by occupation a horse-hair curler, was admitted into the Metropolitan Free Hospital under Dr. Drysdale. He had been of pretty temperate habits, taking two pints of beer a day. Three years ago he had a sore on his penis, followed by a "red rash" over his body, which lasted some weeks. The present attack came on three months ago, ten weeks after he had a sore on his penis. He went one morning quite well to his work; but, after being there an hour, he fell on his side unconscious. He did not know how long he was in that state; but, when he recovered consciousness, he had lost the power of speech, also the use of his right leg and arm. He was laid up three months, and had never recovered, but was better than at first.

When admitted, on April 30th, 1872, he seemed a strong healthy man in other respects. There was complete loss of power in the right forearm; he could not flex or extend his fingers or hand on the forearm. He could flex and extend his forearm or the arm with a little difficulty, but could not pronate or supinate it. On lying down, he could raise his leg in bed, but could not flex the leg or thigh, or the foot on the leg. He could stand on the left leg, but not on his right. The tongue was protruded straight; the pupils were equal; he could close his eyelids tightly. He could blow his cheeks out without air escaping. The right angle of the mouth was a little higher than the left. He had no pain. His speech was very defective; he used words which he did not intend, in the place of others. He could say "Yes" and "No" very well; but could not pronounce his own name, but said "Pots." He could not pronounce the following letters: B, C, D, E, H, J, K, Q, U, V, W, X, Y, L, using the letter T chiefly for most of them; but the remainder of the letters he could pronounce very fairly. His sight was good, and there was no loss of memory. The urine was normal. There was no wasting of the muscles of the leg or arm. He was ordered ten grains of the iodide of potassium three times a day; and to have the different groups of muscles of the right forearm and right leg galvanised daily with the interrupted current of Stöhrer's battery; also the muscles connected with the right angle of the mouth, and the muscles of the tongue.

May 7th.—He could flex his forearm on the arm, but extension, pronation, and supination were not good. He had not much use of the wrist, and the fingers were a good deal contracted. He could move his toes a little. He could pronounce the letters of the alphabet better.

* Read before the Medical Section at the Annual Meeting of the British Medical Association in Birmingham, August 1872.