should be begun as soon as possible, before the wounds are healed. You should try and induce the patient to help in every possible way and in particular in movements of the fingers. Of course there will be sure to be many considerable adhesions, and the sacs may be to a large extent obliterated. Still, even then, some small parts will remain, and you may obtain a very large degree of movement if these attempts at movement are begun soon enough, before the parts are fixed by firm cicatrization. One knows this because one sees the good results which occur in those cases of tuberculous disease of these serous sacs after one has removed by dissection every bit of synovial sac which can be found. In such cases, if the dissection be done carefully, you can obtain a remarkably good result with free movements of fingers and of the wrist, if you will begin the movements early—passive first, and then active movements—and continue them for a very long time indeed. I do not think that one can put any limit to the length of time during which such movements are likely to prove beneficial in these cases.

The treatment of the fourth or subperiosteal variety of whitlow is comparatively simple. It consists in making an incision through the fibro-fatty pad at the top of the finger down to the bone. Care should be taken not to cut so high as to endanger opening the tendon sheath. This incision gives free drainage; about a month later one is able to remove so much of the ungual phalanx as has necrosed. With few exceptions the base of the bone with the attachments of the flexor and extensor tendon survives and the wound heals without further trouble. Lead and spirit lotion (3ss of each to 1 oz. of water) is the best application I know of for all forms of terminal whitlow.

I hope I have interested you in what I have said. My own feeling is that all the operations which I have described this afternoon can be performed successfully by any surgeon provided the few conditions which I have laid down are accepted and followed out—namely, that operation on the affected parts should be undertaken as early as possible; that the operative measures should be carried out after the limb has been made as nearly bloodless as can be, and that if one is uncertain of the intimate anatomy of the region involved, one should take the trouble to look up the subject before the operation, so as to be well aware of the position and relations of the several structures with which one may have to deal in the course of the operation. Seldom can one hope to obtain such a result as will give entire satisfaction to the patient, but it is no small thing to be able to say that the result obtained is the best possible in the circumstances of the case. And this should be the aim of our treatment.

PLUMBISM FROM THE INGESTION OF DIACHYLON AS AN ABORTIFACIENT.

BY

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OBSERVATIONS BY DR. HALL.

DURING the last few years outbreaks of lead poisoning of varying extent and severity have occurred in different localities which could not be traced to the ordinary sources of plumbism, such as water contamination or dangerous occupation. The cases were always limited to women of child-bearing age, and eventually the source of the poisoning was traced to the custom of taking diachylon as an abortifacient.

In a paper read before the Yorkshire Branch of the British Medical Association at Bradford in January, 1904,* I recorded 30 cases of this kind, and referred in detail to the numerous articles which have appeared in various journals from time to time on this subject (vide Bibliography at end of paper).

This custom of taking diachylon, instead of diminishing, has spread over such a large area of country, and assumed such serious proportions, that steps must be taken to check it, or if possible to stop it altogether. How this may best be done remains to be settled, but it is not so simple a matter as might at first sight appear.

The subject is a somewhat delicate one, which cannot

easily be ventilated in the public press, or by the circulation of warning notices. Moreover, there is the fear that publication might tend to spread the evil, instead of reducing it.

History and Extent of Spread.—The first cases were observed at Leicester and were reported in 1893 by Dr. Pope.

After that the practice seems to have been less prevalent for a while, or at least to have spread but very slowly, for I can find no further record of cases until 1898, that is, five years later, when cases were reported in the neighbouring city of Birmingham. In 1899 it had reached Nottingham in considerable vigour, where it has remained ever since.

At that time it had certainly not reached as far north as Sheffield, nor did it do so to any extent until some two or three years later, since when the number of cases has steadily increased in the locality. Inquiries which I have made from all the neighbouring centres show that it has reached various smaller or larger towns still further north, such as Barnsley and Doncaster, and that a few cases have occurred in Leeds, including one death, but this seems to be its northern limit. So far as I can ascertain, it has not been recorded in any of the other large Yorkshire towns, Bradford, Halifax, Huddersfield, Hull, York, etc.* It has not affected the Manchester or Liverpool districts.

Further north at Newcastle-on-Tyne it appears to be quite unknown.

To the east of this affected Midland area I cannot hear of any cases, either at Lincoln, Gainsborough, or Retford.

To the south of Leicester a certain number of cases, with one death, have been reported to me by the courtesy of Dr. Horace Savory of Bedford.

Inquiries from various hospital authorities in London point to its not occurring there.

The area over which the practice of using diachylon as an abortifacient has spread is thus bounded on the north by the upper part of South Yorkshire, on the south by Bedfordshire, and on each side by the width of the counties of Leicester, Warwickshire, Notts, and East Derbyshire. This area comprises a large number of manufacturing towns, each containing thousands of the working classes, together with a country between largely occupied by mining populations.

Local Statistics as to Prevalence of the Custom.—Dr. Ransom has attempted to obtain some details as to the extent of this custom in and around Nottingham—that is, in the southern half of the area; whilst I have attempted to do the same in and around Sheffield.

A circular suggested by Dr. Ransom has been forwarded to every medical man within an area of some twenty or thirty miles of Sheffield, asking for information.

About 200 have replied. Of these 50 have had such cases of plumbism under their care during the last two years (vide Appendix A).

From their replies one can account for one or two hundred cases in this district during the last two years.

One may add to these the large number of women who come to our hospitals suffering from plumbism every month, and even then get a very modest estimate of the extent of the practice.

And this for two reasons: In the first place, a considerable number of medical men have told me they have had such cases but have not answered my circular for fear of making a breach of professional secrecy, whilst the fear of being found out prevents a large number of sufferers from going to their medical men at all.

I believe we shall not be far wrong in saying that several hundred women have taken diachylon in this district alone during the last two years.

From the previous statement one is warranted in saying that this abuse of diachylon is a grave public scandal; for, apart from the social and moral questions connected with it, there is the added evil of the harmful effects of the drug itself.

Unfortunately this is not limited to the severe abdominal pains and headache which immediately follow its use—themselves a cause of sufficiently serious suffering—but there is the prolonged anaemia, with complete inability to carry on the duties of a household for many weeks or months after the drug has been stopped.

* Since writing the above I am informed that the practice is not unknown to chemists in some of these towns, and that even in Dundee chemists have recently been asked for diachylon, apparently for this purpose.

Nor is this the end of the story. Many deaths have been recorded—deaths of young, healthy mothers of families (vide Appendix B)—to say nothing of cases of lead insanity necessitating removal to asylums and a permanent stigma on the patient.

I do not propose in this article to go into any clinical details of these cases.

Lead taken in this form, on the whole, acts similarly to lead taken in other forms, but one or two points may be referred to in which there is a slight discrepancy. Very often the pills are compounded with aloes, so that there is no constipation; at other times the diachylon is taken in such large amounts that acute abdominal symptoms are present, simulating peritonitis or other acute abdominal diseases.*

When one considers the amount of money and labour expended by local authorities in preventing lead poisoning from the drinking water, or the strict legal regulations which must be observed in all trades where the possibility of lead poisoning may arise, it seems the more necessary to try and put an end to this scourge, which I have no hesitation in saying is doing as much, if not more, damage in the places it has reached, than either of the two above-mentioned causes have ever done in a similar time.

HOW THE CUSTOM IS SPREAD.

In order to ascertain the best method of doing this, it is necessary to understand how this use of diachylon has come about, and I think that a study of its origin and spread points clearly to certain important indications for its possible prevention.

The fact that, starting at or about Leicester, it has taken twelve years to spread over an area of only comparatively small dimensions—namely, three or four counties, and that those counties are all adjacent to one another—suggests that it has been handed from person to person rather than by any wholesale advertisement of any particular drug in journals having a wide circulation.

Even supposing that a few quack medicine dealers have spread it, their operations must have been restricted to a comparatively small area, in consequence of their limited capital and enterprise. Whilst certain of the largely advertised patent remedies sold as "female pills" undoubtedly contain lead as one ingredient amongst others, no large proportion of the prevailing cases arises from their use, nor do I think that most of the "female irregularity cures" contain lead at all. At this point it is desirable to ask the question, *What is it that is being spread?*

For my part, I believe it is *not* any particular pill or medicine, either advertised or not, but rather the secret information that diachylon is a safe and sure abortifacient.†

This news is handed on from woman to woman by word of mouth, like any of the other "household remedies" or "cures," which every woman knows. It is true that, here and there, some more enterprising and less scrupulous person acquiring this valuable information, purchases the necessary quantities of diachylon and aloes, and manufactures pills, with which an extensive trade is done in their neighbourhood, under the name of "Nurse Somebody's Pills." They may even go so far as to peddle the pills in the country districts around, but they are too poor and too frightened to advertise their products in the public press, except on a very limited scale.

Apart, however, from these local exacerbations, the general steady advance of this "knowledge of evil" is, as I said before, from woman to woman. Hence its slow progress, for the women of this class do not travel further than to and from their nearest market town or centre.

The direction of spread along the northern path of thickly-populated manufacturing populations, subject to bad trade or overcrowding, rather than to the east or west, or south, where the country is more sparsely inhabited, can be readily understood.

The absence of cases in London helps to support the opinion I have expressed, for it would seem obvious that were any of those dealing in this traffic in a monetary

position to push their trade further afield, London is the natural place to which they would turn.

I have gone into this subject of the spread of the evil in some detail because it is essential that it should be understood, in order to cope with it successfully.

HOW TO DEAL WITH THE EVIL.

We may now consider the various practical suggestions which have been made as to the best method of dealing with the matter.

1. *To Compel by Act of Parliament the Publication of its Ingredients on the Cover of every Patent Remedy.*

2. *To Prosecute and Punish the Makers and Vendors of Diachylon Pills.*

3. *To seek the Support of the Lay Press, and Invite them to abstain from Publishing Advertisements of "Female Irregularity" Remedies.*

4. *To Circularize, or otherwise Inform, all Medical Practitioners in the Country of the Possibility of such a Cause in Obscure Cases of Plumbism, so that they may Recognize it and Warn their Patients.*

5. *Compulsory Notification of all Cases of Abortion.*

6. *To make Lead Poisoning in Women a Notifiable Disease.*

7. *To Control, or Prohibit, the Sale of Diachylon.*

There are two ways in which this method might be carried out:

First. The Sale of Diachylon might be Prohibited Entirely.

Second. It might be Scheduled under the Poisons Act.

A very ingenious suggestion was made in reply to my circular by Dr. Chawner, of Clay Cross, namely, that it should be made compulsory for all diachylon to be adulterated with some harmless emetic substance such as ipecacuanha, so that it would be impossible to take it.

In conclusion, I would like to express once again my sincere thanks to all those who, either in reply to my inquiries or of their own initiative, have so greatly assisted me in this matter, and to remind those of my professional brethren whose districts have not yet been affected of the importance of preventing them from becoming so.

APPENDIX A.

Extracts from replies by medical men in the Sheffield district to Question 1 of Circular, namely, "Do you find it common, and can you say how many cases you have seen in 1904 and 1905?"

(N.B.—I have selected them largely to show the extent of area affected.)

Rawmarsh: "I believe it is very common. Cannot say how many cases I have seen, suspected about 6; 1 absolutely certain."

Parkgate: "3 cases last year, and 5 during the last three months."

Masbro': "About 6 or 7; 1 fatal case last year."

Rotherham: "I have seen several cases of lead poisoning in women, which I was unable to account for until recently."

Rotherham: "I have had at least half a dozen cases during the last two years, and now always examine the gums when called to a miscarriage."

Mexborough: "It is comparatively common. I have seen at least 6 cases."

Mexborough: "5 cases."

Doncaster: "Increasing: about a dozen cases. A chemist who set up in a small way about six months ago states he must have sold 100 penny lumps of diachylon."

Attercliffe, Sheffield: "Fairly common in this district; I have seen about a dozen cases."

Bolsover, near Chesterfield: "I have seen half a dozen cases in 1904-5."

Bolsover, near Chesterfield: "I have had 7 cases during the last two years."

Barnsley: "We have come across 2 cases of probable miscarriage this last year in which there was a very marked blue line. Of course inquiries failed to find out that 'pills,' etc., had been taken."

Wincobank, Sheffield: "Very common. Had about 6 to 12 cases."

Sheffield: "Have had 4 cases in last year, and patients have told me it is very common."

Sheffield: "About 30 cases."

Hoyland Common: "Four cases in the last two years—one a bad case, the others of variable degrees of severity."

Bakewell: "Two cases this year."

Belper: "Yes, near 20."

Swinton: "About 6."

APPENDIX B.

List of Deaths from Plumbism during 1904-5-6, occurring in the Sheffield district or reported from other places.

(N.B.—This does not include those occurring in the Nottingham area referred to by Dr. Ransom.)

* Jaundice has been noted in several recent cases.

† An important addendum should be made to this, namely, that diachylon is also represented to be a preventive against becoming impregnated. Much is taken with this idea.

Locality.

1. Masborough, Rotherham: "Woman. No inquest."
2. Rawmarsh, Rotherham: "Mrs. G., aged 34 years. November, 1904. Source of pills unknown. No inquest."
3. Bedford: "Woman, 1904 or 1905 (reported by Dr. Savory). Inquest. The person who sold the pills was known, but no punishment followed."
4. Sheffield: "Mrs. A., aged 25 years. June, 1905. Inquest. Unable to trace the source of supply."
5. Leeds: "Mrs. B., aged 23 years. Inquest, March 23rd, 1905. Pills made by a Mrs. Oxley, and indirectly purchased by deceased. The jury found 'that death was due to lead poisoning, but that there was no culpability on the part of Mrs. Oxley.'"
6. Sheffield: "Mrs. H., aged 32. Inquest, January 16th, 1906. She was brought to the Royal Infirmary from a country district outside, and absolutely denied having taken anything. The jury found a verdict of 'Death from lead poisoning, source unknown.' Since then I have heard that a box of 'Nurse O—'s' female corrective pills, which are the chief offenders in this district, and contain diachylon, was found in the deceased's house."

ADDENDUM BY DR. W. B. RANSOM.

In order to collect further information on this subject, I sent out 200 copies of the following questions to medical men living within twenty miles of Nottingham.

1. Do you find it common, and can you say how many cases you have seen in 1904 and 1905?
2. Is it an efficient abortifacient?
3. What symptoms does the poison usually produce?
4. Have you known of any fatal cases, if so, how many?
5. Is the lead usually bought as Diachylon, or as secret "female pills"?
6. Can you suggest any means of preventing the practice?

While a considerable number of doctors, especially those engaged in rural or in better class practice, were not familiar with this use of lead, sixty replies were received which showed it to be widespread and common. Thus Dr. Cassidi of Derby had seen 100 cases between 1896 and 1905, and some Nottingham medical men practising in the poorer districts sent the following replies:

- Dr. C. "about 20 in each year."
 Dr. S. "6 in the last nine months."
 Dr. F. "18 in the last 3 years."
 Dr. T. "about 9 a year."
 Dr. N. "15 in 1904 and 1905."
 Dr. W. S. "33 in 1904 and 1905."

Dr. J. W. Scott, formerly House-Physician at the General Hospital, Nottingham, reported 30 cases as in-patients or out-patients there in 1903 and 1904, and Dr. Edward, the present house-physician, 22 between January, 1904, and October, 1905. It appears to be common in the colliery towns and villages of the Leen and Erewash valleys, and round Mansfield.

It is well known in Newark and Loughborough, but does not seem to have reached Melton Mowbray.

In reply to Question 2, most replies indicate that it usually does produce abortion, although some are emphatic about its uncertainty, and all are clear as to its damaging effects to health and serious risk to life. The symptoms described fall into three groups:

1. Those of acute lead poisoning, such as colic, vomiting, or encephalopathy.
2. Those attending abortion, such as metrorrhagia and metritis.
3. Those of chronic lead poisoning, such as anaemia, headache, and occasionally wrist-drop.

Insanity and blindness from optic atrophy have been enduring after-effects. In 10 cases it is said to have caused death, while many others were dangerously ill and barely escaped with life.

In regard to the form in which lead is taken, it appears to be usually bought by the patient or by a friend (for example, a midwife) as diachylon in the lump, and made into pills, either alone or mixed with colocynth, aloes, and such drugs.

In the latter case the "lead colic" may be accompanied by diarrhoea instead of constipation.

But there is also no doubt that a large number of "female pills" sold by herbalists and quack medicine vendors contain lead. Some are specially labelled "not to be taken by pregnant women."

As to the means of preventing the practice, no very satisfactory replies were received.

One very general suggestion was to schedule diachylon and other preparations of lead as poisons, another that

diachylon should only be sold spread as plaster, a third that frequent analyses of "secret female pills" should be made, and their vendors prosecuted, a fourth that chemists should be warned as to the use being made of diachylon, and the danger of selling it indiscriminately, and a fifth that lead poisoning in women should be a notifiable disease.

In regard to these suggestions, it may be remarked that even if the pharmacopoeial preparations of lead were scheduled as poisons, persons who knew its properties could still buy it in other forms, such as white lead.

Nevertheless I am of opinion that a considerable diminution in this practice would follow the scheduling of diachylon as a poison, and that the evil is of sufficient magnitude to justify this step; unless, indeed, its sale were stopped altogether.

The chief use of lead plaster in this district is to "sweal the milk out of the breasts." It can hardly be maintained that lead plaster is necessary for this or any other purpose.

The scheduling or suppressing of diachylon need not involve the publishing to the public of the reasons that led thereto.

I brought the matter before the Nottingham and Notts Pharmaceutical Association, and found that many of the leading chemists were quite unaware of the use to which diachylon sold in the lump was put. Their Council at once gave their kind consideration to the matter, and issued a circular to their members, recommending that diachylon should be labelled as a poison, "for external use only." I am told that within a fortnight the sale of the preparation had diminished.

The question of the prosecution of vendors of "female pills" is one for careful consideration from the legal point of view; but I am decidedly of opinion that lead poisoning in women should be made a notifiable disease.

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ON THE INDICATIONS AND CONTRA-INDICATIONS FOR THE REMOVAL OF THE GALL BLADDER;

WITH A DESCRIPTION OF THE TECHNIQUE AND ANALYSIS OF A SERIES OF FIFTY-SEVEN CASES.

By A. W. MAYO ROBSON, D.Sc., F.R.C.S.

MANY surgical advances, especially in recent years, have been carried out with more zeal than discretion, and in several well-known instances the bounds of good judgement have at first been far passed, though ultimately moderation has prevailed. The purpose of my lecture to-day is to offer a protest against the indiscriminate removal of the gall bladder in all cases in which an operation on the bile passages is called for.

In 1904, at a meeting of surgeons in America, there was a decided preponderance of opinion in favour of cholecystectomy in all cases in which an operation is necessary for gall stones, or for any other morbid condition of the gall bladder, and I know that one or two British surgeons have adopted the same views.

I know it has been said that the gall bladder is a useless organ, very liable to infection, whose debased function is that of forming concretions and ultimately becoming cancerous. On the other hand, I would urge it must not be forgotten that gall stones, though usually forming in the gall bladder, may arise in any part of the biliary apparatus, both within and outside the liver; and, as a matter of fact, I have seen gall stones to develop in a dilated common duct two years after a cholecystectomy, whereas in the very large experience of myself and several surgeons whose aggregate of cases of operations on the gall bladder amount to fully 3,000, it is universally acknowledged that the recurrence of gall stones after cholecystotomy is an extremely rare event.

Bile is constantly being formed in the liver at the rate