DR. THURSFIELD ON THE PASTEUR SYSTEM OF TREATING RABIES.

IN a recent report on the sanitary administration of Shropshire, Dr. Thursfield makes the following remarks:—

Four years ago one adult and a number of young children in this county were bitten on the bare flesh by a dog undoubtedly rabid. A public subscription was raised, and the sufferers taken over to Paris and submitted to the Pasteur system of treatment. After paying expenses a sum of £42 7s. remained over. This has now been handed over to the County Council and placed in the bank to the joint order of the Chairman of the Sanitary Committee of the County Council and the medical officer of health. It is intended to form the nucleus of a fund similar to that known as the Mansion House Fund in London and the Pasteur funds in some of the northern counties, and to enable inhabitants of Shropshire who may unfortunately be bitten by a rabid dog, and not in a position to pay their own expenses, to avail themselves, if they think fit, of the Pasteur system of treatment in Paris, as there is no institution of the kind in England.

I may add that the dog who bit the above people was an undoubted typical case of rabies, with every symptom during life, including muscular paralysis, which was noticed during the last part of his career before he was shot. A careful post-mortem examination by Mr. Litt, M.R.C.V.S., showed all the typical appearances, and enabled that gentleman to certify as to the rabid condition of the animal.

All the sufferers have done well, and although one case, bitten at the same time by another dog, and intimately associated during treatment with the above cases died of hydrophobia two years afterwards, the patients above referred to may now be considered entirely out of danger.

Hydrophobia is not very common in Shropshire, and since the date above referred to no case occurred until last year, when a poor woman in the neighbourhood of Whitchurch was bitten by a dog suspected to be rabid. The dog was destroyed, and it was thought well to hush the matter up to give confidence to the patient. A few weeks after the bite she was taken with hydrophobia and died.

As I have had unusual opportunities of studying the Pasteur system of treatment, and have personal knowledge of the facts of a considerable number of cases where the treatment has been undergone, it may not be out of place for me to state my personal opinion for the benefit of any who care to know it. I am of opinion that what is known as the Pasteur system of anti-rabic inoculation is a rational and scientific treatment that is attended with the minimum of risk, and the maximum of probability of its preventing the development of

hydrophobia in the case of anyone who would otherwise suffer from that disease. And I am confident that anyone bitten by a rabid dog should certainly not fail to avail themselves of the treatment, and that it would be the duty of the friends of any such an one to use all their influence to induce him to undergo the treatment, and that we all ought to be thankful that the most terrible disease to which humanity is subject can be obviated, at least in the vast majority of cases.

AN OUTBREAK OF TYPHOID FEVER AT HATFIELD, BROAD OAK.

By R. RICHMOND, M.B. Ed., Medical Officer of Health.

THE number of cases up to the 5th inst., when I presented a report on the subject to the sanitary authority, was 15 in 14 different families. The first case proved fatal on May 4th, and it was not until June 13th that the illness commenced in the next cases. The remaining ones commenced between that date and the 30th inst.

Nine of the cases occurred in the western end of the village, and six in the eastern, separated from each other by 300 yards.

The inhabitants of the western end obtain their water almost without exception from the "town pump," and examination of the water proved it to be polluted with sewage matter. Those at the eastern end obtain their water from an open well and from a small reservoir, the water from which is brought down in pipes to taps placed in the street. The water from each of these two sources was good, so that I could not look on it as being the cause, but I have no hesitation in connecting these cases at the eastern part of the village with the polluted water from the town pump, as in one family their water was regularly carried from thence, and the other patients were boys who, no doubt, often drank the water as they were passing. The water from the well at the Board School was also analysed and found polluted; a private well not far from the town pump was in the same condition, as was also another well in a field at a somewhat lower level, on the south side of the street—these two latter both unused.

In my report to the sanitary authority I stated as my opinion that the pollution of the water was due to the saturation of the soil with offensive matter from the want of efficient drainage in the village, the multitude and bad construction of the cesspits, and the improper disposal of house refuse. The gardens at the rear of the cottages contain numerous cesspits, which give rise to foul odours and allow of percolation around them, owing to the length of time they remain unemptied, and their leaky condition. There is no provision for the removal of house refuse, and the cottagers make it into a heap or throw it into a hole in the ground,

and there allow it to decompose until the time comes when it can be used as "manure."

In July, 1890, four cases were reported, and there were other doubtful cases, and in July, 1891, there were eight cases in one family (the father dying). In the first of these instances, the water from the town pump was found polluted, as is now the case, and the open well at the eastern end of the village was then contaminated (probably from manure placed in a field close by). Both wells were cleaned, with the result that there was a marked improvement in the water. It was at this time that the supply from the reservoir (hitherto private) was turned to public use.

The cases in July, 1891, were probably caused by the filthy condition of the premises at the rear of the cottage in which the infected family lived (they were newcomers to the neighbourhood). This consisted in two foul pigstyes, a reeking and overflowing cesspit and a second one little better, and a soil thoroughly saturated with the products of decomposing animal and vegetable matter.

Previous to my appointment as medical officer of health, there were seven cases (one fatal) in 1889, and six in 1886. Between 1881 and 1886, no cases seem to have been reported to the medical officer of health, and I have no records of the years previous, but the sanitary inspector tells me that they "were always having trouble with cases of typhoid at Hatfield."

It is evident that the pollution of the water must be a constant one, and I am of opinion that the soil becomes polluted in the first instance from the various causes I have named, for no drains or sewers are in the proximity of the town pump, and this can only be remedied by (1) the adoption of a sewage scheme; (2) by making the present cesspits impervious, altering their positions in many cases, and providing for their being emptied at shorter intervals, or converting the privies into earth closets; and (3) making provision for the removal of house refuse.

Until efficient means have been taken to alter the present unsatisfactory condition of the village, outbreaks of typhoid must from time to time occur.

THE INFECTIOUS DISEASES (NOTIFICATION) ACT AND THE NEWTON ABBOT SANITARY AUTHORITY.—It is a healthy sign to see outside pressure put upon a sanitary authority. Quite recently a large and influential deputation, headed by Sir Edmund Hornby, waited upon the Newton Abbot Rural Sanitary Authority and urged them to adopt the Infectious Diseases (Notification) Act. One of the members of the board has given notice that he will move the adoption of the Act, and we trust the motion will be carried.

THE CONDITION OF THE CROFTERS IN INVERNESS-SHIRE.*

By OGILVIE GRANT, M.B., D.P.H., County Medical Officer of Health.

IN a former report I drew attention to the wretched state of many of the houses in the Western Islands, especially referring to those dwellings where human beings and animals of all descriptions are huddled together under the same roof. Dr. Dewar, Portree, describes a typical insanitary house in Skye as follows:—"The house is divided into three apartments, with one entrance. The first apartment is used for housing the cattle, the manure and house refuse being allowed to accumulate here for months, and in some cases until required for agricultural purposes. The second apartment, used as kitchen, is divided from the first by a rudely constructed partition a few

IN HARRIS.

feet high. The fire is on the middle of the floor, and a small hole in the roof serves to let out the smoke. As a rule there is no window, but a small pane of glass is fixed in one corner, where the roof joins the wall. Beyond the kitchen is the third apartment, used as a bedroom, with two or more beds, according to the number of inmates. This apartment is also used as a storeroom." Dr. Stewart, Tarbert, thus describes a similar house in Harris:—"The house is divided into three compartments, with only one door of entrance. The first compartment is used for housing the cattle, and the manure and liquid filth are allowed to accumulate for twelve months before the place is cleaned out. Immediately adjoining is the second compartment or kitchen, usually divided by a rudely constructed wooden partition from the cattle—in some instances there is no partition at all; the third or innermost compartment is the bed-

* From the 1st Annual Report of the Medical Officer of Health to the Inverness-shire County Council.