

HEALTH ON THE FARM AND IN THE VILLAGE

A REVIEW OF RURAL HYGIENE

Dr. C. E. A. Winslow, professor of public health at the Yale School of Medicine, has undertaken a review and evaluation of the Cattaraugus County Health Demonstration, with special reference to its lessons for other rural areas.¹

Cattaraugus County is in New York State, and has a fairly stable population of 72,000, engaged chiefly in small industry and dairying, but included in the population are some thousands of Indians in a reservation, and Poles. As early as 1916 a county tuberculosis sanatorium had been provided, and in 1923 the health programme was launched, largely as a result of grants from a fund known as the Millbank Memorial Fund. The total appropriation for public health work in the county reached a maximum of 176,000 dollars in 1927, and fell to 160,000 dollars in 1929, the latter figure being equal to 2.20 dollars per head of population, an expenditure greatly in excess of that of any other county in the United States. Of the 2.20 dollars per head, 1 dollar came from the county and its local units, 50 cents from the State, and 70 cents from the Millbank Memorial Fund. Prior to this commencement of the demonstration the total county expenditure in 1922 was only 34,023 dollars, or less than 50 cents per head. It is interesting to note that there are 3,000 counties in the United States, of which 2,500 are essentially rural, and of these less than 500 have a full-time county health service. In only 14 of the 442 counties having a full-time public health service does the per capita expenditure exceed 1 dollar, and 79 per cent. of the counties spend less than 51 cents per head on public health services. Although the health expenditure in Cattaraugus County is nearly double that of any other county in the States, it is doubtful if it equals similar expenditure in many of the English counties, and any British reader of Dr. Winslow's review must realize the comparative inadequacy of the health services provided in the rural areas of the United States.

The county board of health of Cattaraugus is a body of seven, of whom two must be members of the medical profession. The chief executive officer has the title of county health commissioner, and there is a whole-time deputy commissioner. Within the last five years legislation has been enacted which, in counties with a health service, abolishes the health officers of areas with less than 3,000 population, and in larger districts makes the health officers responsible to the county health department. Without doubt the health programme of Cattaraugus County is very comprehensive, but its execution is by no means complete.

ORGANIZATION OF HEALTH SERVICES

The school health service has made much progress under the unifying influence of a county director of school hygiene, but there are still many difficulties to overcome. Thus, of the 268 schools, no fewer than 232 are one-roomed schools, and in many of these the heating, water supply, and lavatory arrangements are not reasonably good. The medical examination of the school children is undertaken by part-time doctors, 55 in number, and generally the work is let by contract to the lowest bidder, at rates varying from 6 cents to one dollar per child. It is evident that there is a good deal of hasty, careless, and slipshod work in connexion with medical inspection, partly owing to the fact that annual inspections of all children are required by the State. The following-up work appears to be fairly well done by the nurses, and it is worth noting that nursing activities cost between one-third and one-half of the total cost of the health services. Even here, though, greater co-ordination of the various nursing activities appears desirable.

¹ *Health on the Farm and in the Village*. A review and evaluation of the Cattaraugus County Health Demonstration, with special reference to its lessons for other rural areas. By Dr. C. E. A. Winslow. New York: The Macmillan Company; London: Macmillan and Co., Ltd. 1931. (5s. net.)

Good progress has been made in the county towards combating the tuberculosis problem, somewhat on the lines adopted in Great Britain. The sanatorium of 50 beds is not a modern building, and the physical facilities are stated to be by no means ideal, while the medical superintendent has other important duties to discharge outside the sanatorium, and is evidently overworked. It is interesting to know that 50 per cent. of the cases diagnosed at the clinic were referred by medical practitioners, for whom a consultative clinic is available. The x-ray work appears to be comprehensive and efficient. Compulsory notification of tuberculosis is apparently not in force, and the fact that many of the "arrested" cases never had any clinical symptoms of tuberculosis is the subject of comment. A point of interest is that 510 children in the schools were tested with tuberculin, and 54 reacted. The tuberculosis problem is complicated by the number of Poles and Indians, who are ignorant and ill-fed, and have a high tuberculosis death rate.

Much attention is given by the county health department to tracing outbreaks of infective diseases, and immunization is much more practised than in Great Britain. Twenty-five per cent. of the children in this county aged between 6 months and 5 years are stated to be immunized against diphtheria, toxin-antitoxin being distributed free to medical practitioners, who are paid a nominal fee (50 cents for three injections) for performing and certifying complete immunization. There are, however, practically no facilities for the hospital treatment of infectious diseases. The laboratory arrangements are evidently efficient and progressive, and valuable research work has been done on undulant fever, typhoid carriers, the bacteriology of swimming-bath water, etc. The cost of the laboratory services is equal to 15 cents per head of the county population, and they are of great value to the medical profession.

As regards maternity and child welfare, it is interesting to note that of the 1,300 births in 1929, 1,275 were attended by doctors and only 15 by midwives. The percentage of births in hospitals was 34, mostly in the towns of Olean and Salamanca, the percentage of hospital cases in the rural areas being only 6. The maternal death rate is high, reaching 7.5 per 1,000 births. The medical supervision of infants is unsatisfactory, but the home visiting by nurses is good. The milk supply (50,000 cows) is well controlled, and 29 per cent. of the milk is pasteurized. In 1923 7.1 per cent. of the 59,000 cattle tested by tuberculin reacted, while in 1929 this percentage had been reduced to 0.8. It is stated that 14,366 reactors have been destroyed.

SOCIAL AND SANITARY CONDITIONS

The environmental sanitation of the county is unsatisfactory, especially so far as the water supply is concerned. Sixty per cent. of the population have public water supplies, but many of them are liable to serious pollution, while many of the private supplies are similarly unsafe. In 1928 and 1929 two epidemics of enteric fever and one of diarrhoea were definitely caused by polluted water, and in 1928 an epidemic at Olean raised the county enteric fever death rate to 31.8 per 100,000 population. The county board of health has no power to compel the treatment of unsafe public water supplies, but the State Department of Health has now that power under a recent Act, and everyone will agree with Dr. Winslow that this power should be courageously exercised. Camp sanitation is very defective as to water supplies and sanitary control, and in 1929 at least three outbreaks of diarrhoea in scouts' and other camps were probably caused by bad water or insanitation. Only 40 per cent. of the population are provided with sewers, and there appears to be no complete system of sewage disposal for any town or district in the county. More than half the population have privies and cesspools, which are not subject to any official supervision.

The control of venereal diseases is at present inadequate. In the rural districts the patients obtain their treatment at the doctors' surgeries. As to hospital accommodation for medical and surgical cases, there are 204 beds in the county, but only 1 per cent. of the patients' days is free, the minimum charges being from 2 to 3 dollars a day.

The fee charged for tonsillectomy is 50 dollars, plus hospital expenses, and, owing to the high costs, the correction of physical defects is unsatisfactory. Private nurses charge from 6 dollars a day of twelve hours. The medical relief of poor people is evidently very incomplete, and not satisfactory; but it would appear that recent legislation is likely to result in much improvement in this direction. In certain districts deplorable social conditions, of which examples are quoted, exist, which would not be permitted in Great Britain.

Health education in the schools requires to be developed, but good progress has been made with systematic instruction in food values and in the orthopaedic treatment of school children. The county health demonstration programme has met with considerable opposition from certain medical practitioners, who object to lay control, and have made charges of "ineptitude," "extravagance," "pauperism," etc., against the scheme; but most readers of his review will agree with Dr. Winslow that many of the complaints have no justification.

This survey of rural hygiene can be strongly recommended to public health workers in Great Britain, for it shows what can be done in an area undeveloped so far as essential health services are concerned, and it also sets forth clearly the difficulties that have to be overcome, many of which do not exist in this country or have already been overcome.

T. E. H.

Nova et Vetera

JOHN HUNTER'S BUFFALOES

John Hunter collected, as is well known, animals "of the strangest selection in nature" in the grounds of his country house at Earl's Court; and Jesse Foot, in his scurrilous *Life of Hunter*, describes "those buffaloes which Hunter so lately as in 1792 put into harness and trotted through the streets of London." To insinuate that this was for advertisement, Foot suggests that Hunter can never have judged "that he might have been fairly outrivalled by a showman's dromedary, especially if there were, and probably there would be, the additional effect of a monkey mounted on his back—playing its little antic tricks." This impudent fancy is the subject of one of the most amusingly mischievous of Foot's *Illustrations to the Life of Hunter*, now in the Wellcome Historical Medical Museum. On the left of the drawing is the showman with his monkey riding on the dromedary, and to the right Hunter stands in a low two-wheeled cart drawn by a pair of small dark buffaloes.

William Clift came to Hunter's household in this year (1792), and, as might be expected, he has left a more veracious account of the buffalo cart. In 1816 Clift, being then Conservator of the Museum, drew up a manuscript catalogue of the Hunterian pictures at the Royal College of Surgeons. The first item in this catalogue, which is now in the College library, happening to be "A drawing of three Buffaloes (Zebus) from the East Indies, which were in Mr. Hunter's possession alive," Clift wrote out the following amusing story.

These Zebus were alive in Mr. Hunter's possession at Earl's Court, Kensington, in 1792-3, and used to be driven, or rather led, in a cart to 13 Castle Street Leicester Square with Vegetables for the service of the Family every Wednesday; and in return took back the Stable Dung produced ad interim—and during the Winter Season the off-fall from the dissecting-rooms. The large white Animal was the Leader: the two small ones in the Double Shafts. On one (and only one) occasion, on there being a new Carter, a wildish Scotchman, who was known by the Cognomen of Scotch "Wolly" (Tom Barton having been discharged for Drunkenness) he first brought the dissecting room Hampers into the street in the Cart without covering them as usual with the Stable Dung; and as usual went into the Kitchen to get his highland Crop filled with Beef and Beer:—In the meantime,

some of the boys of the neighbouring school of St. Martin's parish, opposite the Mews Gate, and other Street Boys, being aware that Apples and other fruit were usually brought from Earl's Court, soon mounted the sides of the cart (the Buffaloes being taken during the time into the stables below) to explore the Contents of the Hampers. The first object that struck their attention, instead of the Apples they expected, was the Putrid half dissected arms of a Man, green blue & yellow;—Livers, intestines & other parts,—and this disappointment occasioning some demur and disappointment, as well as remark to the street passengers, every one of whom took a peep, and consequently a numerous Audience was soon collected to witness the Prelections and Demonstrations of a Hair-Dresser's assistant who put himself very forward in the Discussion, which being carried on in a very audible manner, presently attracted the notice of the Inmates of the Dissecting rooms (which were the Attics of No. 13, Castle Street): who soon came to the Rescue, on my application, in their dissecting dresses. . . . We soon disturbed the Carter from his dinner, and his first essay was to put his cattle to the cart, but the halloo-balloo was too great to succeed in that attempt—the cart was run into the coach house and the doors attempted to be shut:—the buffalo being held outside with the halter between the two halves of the Door; the before-mentioned hair dresser in his white jacket and apron with pockets and paraphernalia of razors & powder puff, attempted to cut the Halter and set the buffalo loose: but the noble beast made a dead set at him, and fortunately pinned him to the door between his horns instead of on them: the Scotch Willy was pushed out and the Door closed;—the Buffalo ran down the street, turned up Green Street, and ran round Leicester Square with the man holding on at the end of the long halter, to the great amusement of the crowd who by degrees dispersed, and in the evening the cart was dispatched minus the Hampers, and so ended the affair: the carter never knowing what we had placed in his cart, until long afterwards: as Peter Shields the Head Gardener at Earl's Court always superintended the return of the cart and quietly disposed of whatever was transmitted from London in return for the good things he had sent to us.

The before mentioned "Wolly" some time afterwards having returned to Earl's Court with the usual cargo of Hampers and stable-dung, took upon himself the responsibility of shooting the contents of his cart of *Stable Dung* on the Dunghill, in a very retired situation at the back of the Premises, without being aware of what his cart contained, and without having consulted the *Head Gardener*. To his utter amazement on the Capsizement or Capsission of the contents of his cart the Hampers contained such things as utterly capsized his wits and his appetite:—The following is a nearly word for word description of the Dialogue which occurred between the before-named "Wolley," and excellent, kind-hearted Mrs. Shields the Gardener's Wife:—

—"Why, Wolly, what's the matter wi' ye, the day, my mon?"

—Ahé, Missus, woman, I've had sic a turn!

—"Why, what the De'il ails ye Man: ye seem a' through-outer!"

—"Ahe, Missus—what d'e think? On shooting oot my keart, what did I see, but a Man's fut wi' a' the tane taes till't. Ahe, it gie'd me sic a Turn that I went to the Public and got a glass o' Gin, and a pot o' porter, and a quarter o' cheese, and a twa-penny loaf: I was perfectly horreefeed and astounded! I was perfectly bewilddert!!

—"Weel, weel! Wolly my man, It wonna do that ye should ha' sic a turn every day! y'er shilling a day wou'd-n't admit o't!!!"

W. CLIFT.

The little comedy of the "hair-dresser's prelections" needs no comment; but it is interesting to note the list which Clift gives (in his MS.) of the "dissecting-room inmates" and pupils of Hunter at this time. "Scotch Willie" is entered among the Earl's Court outdoor servants in Clift's list of Hunter's dependants, which was printed in the *British Medical Journal* (1890, i, 739). In that list he was described as "half-witted" and "employed in the fields"; but this was evidently before his promotion, for the list also includes "Tom Barton, carter." The story, in accounting for the buffaloes' weekly journey, satisfactorily disproves Foot's insinuation that Hunter in person drove the buffalo cart from Earl's Court to Leicester Square, "trotting through the streets of London."

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