The children are poorly fed, and a neglected cold or untended attack of measles impairs the resistance of the mucous membrane of the respiratory tract. The history of many of our cases of phthisis in children begins in one or other of these conditions followed by weeks of failing health, loss of flesh, and night sweats, without any very definite signs in the chest.

Such, then, are some of the conditions which notification discloses and for which in time it must ask a remedy. Also they seem to me to push outwards the administrative horizon of the disease. For if my figures which represent the proportion of public to total notifications as almost 2 out of 3 are fairly maintained over a wider area of observation than the experience of one city can supply, then it brings the family of the consumptive within the zone of administrative requirement. For in the low standard of food and clothing and housing which it implies we have agencies at work which are preparing the soil best suited for fostering the disease we wish to eradicate.

Conclusion.

Thus, the administrative control of phthisis becomes a many-sided problem, and just because of its complexity and magnitude there is some risk of temporising with it.

In the allocation of function as between the several authorities whose sphere of action touches one or other aspect of the question, there is danger that each may be tempted to await developments on the part of the other. In this respect we suffer from limited views of administrative responsibility. In a general sense it is the function of a public health authority to prevent disease, while the Poor-law authority aims at preserving the economic independence of the individual. But the surest way of accomplishing the latter is to maintain individual health, while the prevention of disease is best accomplished when the economic status is maintained. The administrative problem requires the accomplishment of both.

A scheme has already been outlined in a book which for its comprehensiveness, as well as for its masterly arrangement of detail, has, I think, helped forward the solution of the problem more than any other work on the subject. I refer to the recent volume of Dr. Arthur Latham and Mr. Garland. Recognising the question as a national one, it proposes to enlist the active interest of the nation by a scheme of national insurance against the disease. In no other way does it seem to me shall we ever be able to continue the struggle with so reasonable a prospect of ultimate success. It is the principle of the friendly society applied to the nation as a whole. And among the advantages which would follow its adoption we should see, I think, a renewed and more vigorous effort on the part of local authorities to deal comprehensively with housing reform, which is so essential to success in the campaign against tuberculosis.

Glasgow.

A RECRUITING OFFICER'S NOTES ON THE PREVALENCE OF CERTAIN DISEASES IN EGYPT.

By G. W. G. HUGHES, M.R.C.S. ENG., L.R.C.P. LOND., CAPTAIN R.A.M.C. (ATTACHED EGYPTIAN ARMY).

The following notes are made from observations on Egyptian conscripts.

According to the Recruiting Law of 1902 every Ottoman subject resident in Egypt between the ages of 19 and 27 years is liable for military service. There are many causes for exemption from this service which need not be detailed here excepting that the payment of £20 frees the payer from all liability. Consequently the conscripts are almost entirely drawn from the poorer classes. Conscripts are balloted at 19 years and called to the army when 21 years of age. Between 2500 and 3000 men are required annually for the army, but as the standard of fitness is a fairly high one large numbers of men have to be called up and examined.

The recruits have to be at least 167 centimetres (5 feet 6½ inches) in height, well developed, and sound in sight, heart, &c. The men called for the service pass through the hands of two English army medical officers (of whom I am one), who pick out the men who are up to the required standard. These officers move from one district to another,

dividing the country between them, and seeing from 300 to 400 men in a day. The men are called up in turn and are first measured for height. If a man is under height he is pronounced at once unfit and not further examined. (For the purposes of this article I have, however, looked carefully at each man and made notes of any obvious abnormality.) Those who reach the necessary height have also their chests measured and go through a rapid examination. The eyes are examined by oblique illumination for opacities and nebulae of the cornea, the lids are everted; the ears, the head, the teeth, and the movements of the various joints are tested and the heart is auscultated. The examination is necessarily little more than a rapid survey of each man, but with experience it becomes fairly reliable. The recruits, it may be said, are again examined by another English army medical officer in Cairo before final enlistment. The percentage of men found "fit" for the army is about 14.

The following remarks are made from rough notes made on some of the men who have passed before me within the last few months.

Eye diseases.—I examined carefully 2600 men, and of these I found 65 per cent. had some obvious gross lesion of the eye. (No ophthalmoscopic examination was made, and no test of vision was carried out by test types, &c.) Mr. A. F. MacCallan found amongst the pupils of a Government school that 96·4 per cent. showed signs of active or passive trachoma.¹ These pupils would be of a distinctly better class than the conscripts.

TABLE I.—2607 Men aged about 21 years called for Medical Examination as to Fitness for Army.

External diseases of eyes.	Granular ophthalmia.		Totally blind.		Favus of scalp.	Anæmia.		Spongy or bleeding gums.
	Cornea affected.	Cornea clear.	One eye.	Both eyes.		Severe.	Slight.	
1693 (64·9%)	961	389	165	33	339 (13%)	74	132	400 (15·7%)
	1350 (79% of eyes)					206 (7·9%)		

TABLE II.—2227 Men and Boys aged between 14 and 20 years (Average Age about 18 years) all under 155 centimetres (5 feet 1 inch) in Height.

External diseases of eyes.	Granular ophthalmia.		Totally blind.		Favus of scalp.	Anæmia.		Spongy or bleeding gums.
	Cornea affected.	Cornea clear.	One eye.	Both eyes.		Severe.	Slight.	
1524 (68·4%)	914	398	Not taken.		482 (21·6%)	195	270	284 (12·7%)
	1312 (86% of eyes)					465 (20·7%)		

Notes on Tables I. and II.—The most marked difference in the above two tables is in the percentage of "anæmia." This is to a great extent accountable for by the stunting of growth in ankylostomiasis alluded to in the text. The increase in the percentage of favus also in Table II. may very well be due to the increase in the proportion of anæmia—i.e., diminished resistance of the tissues. Out of 5000 men of a separate series similar to those of Table I. I found 14·2 per cent. had favus.

Every condition of ophthalmia can be seen in Egypt—ordinary acute and chronic conjunctivitis, varieties of granular ophthalmia, spring catarrh, and, what is almost the rule, combinations of two or more of these diseases. I imagine when percentages are given of the amount of "trachoma" in Egypt the term includes all the above conditions. Indeed, one seldom sees a case in which one can exclude "trachoma" as a specific disease with certainty. Personally, in the statistics given I have grouped them under the more ambiguous and comprehensive term of "ophthalmia." Cicatrisation of the granules may leave either a lineal scar tending to produce trichiasis or irregular lines, or occasionally a fine reticulation difficult to detect.

¹ THE LANCET, August 14th, 1903, p. 457.

The difference in the terminations of the granular ophthalmia appears to vary according to the depth of subconjunctival tissue involved. I was surprised to notice the number of cases of granular ophthalmia in which the cornea was unaffected. (Roughly one-quarter of the total cases, see Table I.) One frequently saw huge masses of granulations, or very severe cicatrization without any lesion of the cornea. Trichiasis was a sequel to the disease in 1.5 per cent. of the cases. Night blindness is frequently complained of.

Conscription being still most unpopular in Egypt, intentional blinding is still occasionally met with, but with nothing like the frequency in previous generations of conscripts. The means employed are either the placing of a hot needle on the cornea, producing a dense white leucoma or a puncture often involving the lens; or by the introduction of lime or an irritant vegetable juice in the eyes.

Favus.—Favus of the scalp is met with in about 14 per cent. of the men. It is allowed by the natives to run its course, usually resulting in bald patches of varying sizes, often involving the whole head. It is essentially a disease of childhood and adolescence. It is more prevalent in the country villages than the large towns and therefore is practically confined to the fellahin (peasantry). It is common to see most of the men of one village affected and of another free.

Anæmia.—Ankylostomiasis and ophthalmia are the most common diseases of Egypt. Indeed, if the Government energy expended on the inquiry into pellagra were devoted to the prophylaxis of ankylostomiasis the country would be considerably more benefited. It has been stated that 70 per cent. of the population are affected. It would seem to be, like favus, a disease of the country villages rather than the large towns. A diagnosis of this affection, during the examination of recruits is, of course, impossible, and, indeed, no idea can be given of the real extent of its prevalence.

The typical picture of ankylostomiasis is as follows. More or less severe anæmia, more noticeable from the colour of the skin than that of the mucous membrane; often a fat, chubby, but pasty face; as a rule, enlarged parotids; the sclerotics are of a porcelain whiteness. The man often complains of pain in the epigastrium and in the back. There are very commonly marks of cauterisation (the native's panacea for most ills) or of setons over the epigastrium, below the occiput, and over the spine and sacrum. One very noticeable fact is that severe anæmia in childhood retards the growth. Thus it is very common indeed to see what seems a small child, with childish genitals and general appearance, about 4 feet in height, but with intense anæmia, whose age is undoubtedly at least 20 years.

But there are many cases where one can be morally certain of the presence of ankylostomiasis without there being any obvious anæmia. The percentage of men with obvious anæmia, more or less intense, is nearly 8 (out of 2600, see Table I.). It is frequently found that recruits have been enlisted, apparently not anæmic, who after a short period of service in the Sudan have developed very severe anæmia and have had to be discharged, the altered conditions of life and climate having rendered acute the latent disease.

Bilharziosis.—As in ankylostomiasis, the presence of this disease can as a rule, only be suspected at the time of examination of conscripts (a suspicion, however, is sufficient for rejection). Such cases complain of pain in the hypogastrium, say that they are "ill in their water," and that they have occasionally blood in their urine. Fistulæ in the perineum or bilharziosis of the rectum are occasionally complained of. Caustery marks above the pubis and over the coccyx give rise to suspicion of this condition.

Cirrhotic livers are fairly common amongst children. The liver is not, as a rule, enlarged, but has a hard, obvious edge. Occasionally there is a considerable enlargement of the spleen. Although usually associated with anæmia, this is not always present. Later stages show dropsy, ascites, and emaciation.

Teeth.—Caries of the teeth is, as would be expected, not a common cause for rejection. I examined 1300 men and found 1046 (83.0 per cent.) had perfect sets of teeth. 198 men of the 254 with imperfect sets of teeth had only one or two teeth missing or decayed. Pyorrhœa alveolaris is fairly common, leading to hypertrophy of the gum, but not usually to much loss of teeth. A very common condition indeed is

spongy and bleeding gums, possibly due to some general disease as scurvy. (The Egyptian fellah lives almost entirely on vegetable food.) It is essentially a disease of the poorer classes. It produces loosening and loss of the teeth, especially the incisors. I have noticed that it is often associated with knock-knee in children.

Pellagra.—This disease has been the subject of a good deal of inquiry lately in Egypt. The question of attributing it to diseased maize has been much discussed. It is more common in the Delta than in Upper Egypt and is noticed more in the winter and spring months. The skin lesion is obvious and unmistakable, but other symptoms of a nervous disease, excepting perhaps a slight increase of the knee-jerk, are seldom seen amongst the younger population. A curious fact, too, is that although one member of the family may have a markedly pellagrous skin, the others are perfectly healthy. Anæmia is almost invariably associated with it. Personally, what I have seen of the condition of pellagrous skin would not lead me to necessarily connect it with a nervous disease.

Congenital abnormalities.—THE LANCET of July 3rd, 1909, contained an interesting annotation on a letter from Professor F. E. Madden (to whom I am much indebted for assistance and advice in preparing this article) on the Rarity of Congenital Deformities in Egypt. I had paid no particular attention to the point before, but since then, while examining 12,000 men, I have made notes of the number and varieties of such abnormalities. THE LANCET remarked in the above annotation that "Professor Madden considers it to be impossible to endeavour to explain this rarity of congenital defects in Egypt, unless the time-honoured scapegoat of our too modern civilisation be invoked to account for their frequency in other countries." Readers of these articles will be interested to hear that our "too-modern civilisation" is innocent of this slur. A glance at Tables III. and IV. will show this clearly.

TABLE III.—12,000 Men, aged 21 years (of the same type as those of Table I., but not including them).

Paralyses—	Other congenital deformities of fingers or toes	11
Arm, 7	} 38*	Various other congenital deformities
Leg, 23		
Arm and leg, 8		
Talipes	15	Hare-lip
Ankylosis of, or fractures about elbow	31	Cleft palate
Flat-foot	16	Enlarged mammae
Shortening of fourth metatarsal	28	Absence of pectoralis major ...
Webbing of second and third toes	16	Undescended testicles
Polydactylism	7	Albinism
		Deaf-mutism
		Idiocy
		Leprosy

* 0.31 per cent.

TABLE IV.—4947 Men and Boys, between 14 and 20 years, under 155 centimetres (of the same type as those of Table II., but not including them.)

Patent umbilical ring, with or without hernia ...	168*	Polydactylism	2
Paralyses—	} 23†	} Other congenital abnormalities of fingers or toes ...	} 4
Arm			
Leg			
Talipes	6	Undescended testicles	3
Shortening of fourth metatarsal	9‡	Enlarged mammae	8
		Idiots	10
		Deaf-mutes	3

* 3.3 per cent. † 0.46 per cent. ‡ Out of 2442 only.

I am unaware of the percentage per population of congenital abnormalities in other countries, but these would seem to be by no means rare in Egypt. Professor Madden's note is interesting as proving the ignorance of the native as to the possibility of treatment for such conditions as cleft palate and harelip. The extent of intermarriage between near relations in the country villages would lead one to expect a comparatively large proportion of defective children.

A condition I have noticed as being particularly common is a congenital shortening of the fourth metatarsal. The fourth toe is markedly retracted, usually behind the level of the fifth toe. The phalanges are not apparently abnormally short, and the metatarsal bone can be felt, unfractured, but with the head very much farther back than usual. Commonly the digit is pushed upwards by the pressure inwards of the fifth toe. The condition is sometimes unilateral and sometimes bilateral. In one case the second metatarsal, and

in a second the third metatarsal, was in a similar condition in conjunction with the fourth. In two other cases the third metatarsals alone were shortened. Only once have I seen a similar condition in the hand when the second and fifth metacarpals were markedly shortened with no evidence of fracture. The most common form of polydactylism is a supernumerary fifth digit on the foot. One man had eight digits on the left foot. Another common condition is webbing of the second and third toes, either partial or complete.

A curious abnormality is a congenital absence of one pectoralis major. I have seen four cases out of the 12,000 of Table III. In two of these the pectoralis minor was also absent. The men seemed unaware of anything particularly abnormal, and movements of the shoulder were free. One cannot help being struck with the frequency of patent umbilical rings, with or without hernia. Inguinal hernia is not very common in young men.

Paralyses.—The vast majority of these are infantile and are very common indeed. More commonly of the leg than of the arm, they are usually said to be congenital, but the natives' statements are by no means reliable.

Injuries to the elbow.—I am at a loss to explain the frequency of fractures of the lower end of the humerus and of the condyles, dislocation of the lower epiphysis of the humerus, and ankylosis of the elbow-joint. The great majority of them have occurred in early childhood. Very possibly falls from donkeys and from the backs of cattle may be an explanation. Occasionally I have had ankylosis of the joint ascribed to small-pox.

Cairo.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Tubercular Iritis.—Inter-fascicular Endothelioma of the Choroid.—Intracranial Tumour.—Exhibition of Cases, &c.

A MEETING of this society was held on July 8th, Mr. G. A. BERRY, the President, being in the chair.

Mr. INGLIS TAYLOR showed a case of Tubercular Iritis of Severe Type, and raised the question of the efficacy of treatment by tuberculin.—Mr. E. TREACHER COLLINS said that when he used tuberculin in small and gradually increasing doses he did not get very good results, but recently he had had one very satisfactory case so treated. In one patient single nodules had disappeared from both eyes, and there had been no return.—Mr. J. B. LAWFORD and Mr. A. MAITLAND RAMSAY had found benefit from the use of tuberculin.

Mr. GEORGE MACKAY read a note on an Inter-fascicular Endothelioma of the Choroid situated at the Optic Disc. At the beginning of the year the patient had a momentary loss of power in his leg and fell. A fortnight later he fell while rising from his chair and lost consciousness momentarily. A week later he discovered that weakness of vision was due to a defect in the right eye; a neurologist found nothing abnormal in his fundi, and ordered iodide of potassium and abstinence from tobacco and stimulants. When Mr. Mackay saw him he was a full-blooded man, 60 years of age, and was said to have had no cardiac trouble or kidney disease. There was no specific history. In his youth he had been noted for his feats of strength. His pupils reacted to light and to convergence; the right a little less than the left. The media were clear, and the tension was normal. From his shooting experiences the patient knew his right eye had good sight until four years ago. Recently he had occasionally had a sensation as if a long hair was touching his eye, and he had also colour sensations in the right eye. The left fundus was normal. The disc of the right eye presented a curious appearance, difficult to define until the pupil was dilated with homatropine. That showed the surface of the disc to be elevated by a tumour substance with adherent vascularisation. The veins disappeared in the disc substance. It was possibly a congenital abnormality. There was a narrow dark ring of pigment, especially towards the macular side. Iodide of potassium, which had been discontinued, was advised to be recommenced, but a month later there was no

appreciable alteration. The patient did not note any dimness of vision. In the test-types he missed those to the left of the mid-line. Dr. Berry then saw the patient and confirmed the diagnosis, but desired to see him again in six weeks' time. In order to be safe Mr. Collins was also asked to see him, and he said there was a new growth in the right eye, involving the optic nerve. Mr. Collins advised that the eye should be removed as soon as possible. Since the excision, the tumour was found to be a mixed spindle-celled and round-celled sarcoma, but extending only a short distance into the sheath.—Mr. TREACHER COLLINS described the pathological appearances, and exhibited slides by means of the epidiascope.

Mr. LAWFORD read a further note on a case of Optic Atrophy and Oculo-motor Palsy due to Intracranial New Growth. The patient was a man, 40 years of age, who died in St. Thomas's Hospital on May 7th last. There had been a gradual increase of proptosis on both sides, and a large growth between the eyeball and the nasal bone on the right side. The tumour also appeared in the left temporal fossa, and the movements of the mandible became restricted. A new growth developed in the roof of the mouth. A few weeks before death the right cornea began to slough from exposure, and the right fifth nerve became almost completely paralysed, showing how extensive was the spread. There were headache and a low delirium, followed by coma, which terminated fatally. A necropsy the day after death showed that the growth had extended all over the skull and nasal cavity. The olfactory lobe and the optic nerve were involved. The specimen showed a large glistening tumour, lobulated, smooth on the surface, and covered by dura mater. Mr. Shattock examined the growth and reported that it was a rapidly growing chondroma. The vision began to fail 12 months before death.—Mr. R. W. DOYNE and Mr. F. HEWKLEY discussed the case, and Mr. LAWFORD replied.

Mr. E. A. DORRELL showed an Unusual Form of Cataract.

Mr. W. H. H. JESSOP showed a new form of Lamp.

Mr. ARNOLD LAWSON showed a case illustrating an Unusual Variety of Macular Hæmorrhage.

Mr. H. L. EASON exhibited a case showing Massive Exudate in the Choroid.

SECOND INTERNATIONAL CONGRESS OF ALIMENTARY HYGIENE (BRUSSELS).—The Deuxième Congrès International d'Hygiène Alimentaire et de l'Alimentation Rationnelle de l'Homme, to give it its full title, will be held in Brussels from Oct. 4th to 8th next, under the patronage of H.M. the King of the Belgians and of the Belgian Government. National committees have been constituted for Germany, England, Austria, Denmark, Egypt, Spain, Finland, France, Greece, Hungary, Italy, Norway, Netherlands, Portugal, Sweden, Switzerland, Canada, and the United States. For England the president is Mr. J. A. Gardner, M.A., F.I.C., professor of chemistry and hygiene, St. George's Hospital Medical School, and the honorary secretary is Mr. Cecil H. Cribb, B.Sc., F.I.C., 136, Shaftesbury-avenue, London, W. There are 33 members of the English committee, whose names are all well known as public analysts or professors of physiology and chemistry or engaged in public health work. The meetings will take place in the Assembly Hall in the Universal Exhibition grounds. The subjects for discussion are the energy value of foods and alcohol, value and effects of cooking, influence of micro-organisms, use of antiseptics in food, purity of water, sterilisation of foods, contamination of food on sale in streets and shops, clean milk, analysis of butter, control of mineral waters, food legislation in different countries, legal responsibility of food vendors, the working-man's food, and cold storage of meat. The subscription is 20 francs (16s.) for ordinary members and 10 francs (8s.) for associates. Relatives of an ordinary member are admitted as associates. They cannot make any communications and do not receive the publications. The official languages of the Congress are French, German, English, Italian, and Spanish. The president of the organising committee is Professor L. Fredericq, and the secretary-general, to whom all subscriptions must be sent, is M. E. Grognard, 3, Rue de Louvain, Brussels. Post-office orders are preferred, payable to Mr. Sterckx, treasurer for the Congress, who will give a receipt for the same.