Union we may state that the most pleasing result is the fact that medical men have been brought together in the meetings of the various branches, and that in the discussion and interchange of opinion many old difficulties and misunderstandings have been removed, and a more cordial professional feeling between neighbouring practitioners has been established. At the commencement we found a sense of distrust amongst medical men almost universal, but we are glad to state that this is being gradually dissipated, and if no other tangible advantage had been derived, the founders of this Union might feel themselves amply repaid for their trouble and work in the fact that they had raised the feeling of *esprit de corps* of the profession in this district.

On the proposition of Dr. CROSKERY (Eckington), seconded by Dr. DUNCAN (Claycross), the report was adopted.

ELECTION OF OFFICERS.

On the proposition of Dr. NESBITT (Sutton-in-Ashfield), seconded by Dr. RAINSBURY (Skegby), the following officers were elected: Dr. J. G. Shea, President; Dr. T. Geraty, Vice-President; Dr. F. R. Mutch, Hon. Treasurer; and Drs. Houfton and Palmer, Hon. Secretaries.—On the proposition of Dr. GERATY, seconded by Dr. ALLEN (Belper), Mr. G. S. O'Rorke, M.A., solicitor, was appointed General Secretary.—On the proposition of Dr. HOUFTON, seconded by Dr. PALMER, the following gentlemen were (subject to their consent) elected as the Council: Messrs. Heelis, Handford (Nottingham), Tait (Mansfield), Nesbitt (Sutton-in-Ashfield), Macdonald (Crich), Allan (Belper), Duncan (Claycross), Croskery (Eckington).

On the proposition of Dr. SHEA, seconded by Dr. MUTCH, it was resolved that the following rule be substituted in place of Rule 4.

The annual subscription for each member be 10s., payable in advance on October 1st.

On the proposition of Dr. MUTCH, seconded by Dr. W. E. M. WRIGHT, and after hearing observations from Dr. DUNCAN (Claycross), Dr. NEILSON (Bulwell), and Dr. A. ALLEN (Belper), the following resolution was carried as an alteration of the rules:

a. Members are asked to guarantee a sum of five guineas, or multiple of five guineas, so that in the event of indemnity being required the money may be called up in the proportion promised.

b. Subscription to this fund is not compulsory.

c. In case any member should apply to be indemnified from this fund who is not a subscriber to it, the granting of relief to such member shall be left with the President and Vice-President to decide whether there are special circumstances entitling the member to such relief.

d. The control of this fund shall be left with the Council of the Union.

GENERAL MEDICAL COUNCIL ELECTION.

Addresses were then delivered by Drs. BROWN and JACKSON, candidates for membership of the General Medical Council.

On the proposition of Dr. SHEA, seconded by Dr. RAINSBURY, and supported by Dr. Cox and Dr. NOBLE, votes of thanks were accorded to the speakers.

A vote of thanks to the Chairman terminated the proceedings of the meeting.

THE RATES OF MORTALITY IN THE CONCENTRATION CAMPS IN SOUTH AFRICA.

PARLIAMENTARY returns of the number of persons and the number of deaths among persons in the concentration camps in South Africa are now available for the four months June to September inclusive. We have prepared an analysis of these figures, which will enable our readers to study with ease the death-rates in these camps. For the sake of convenience, in the following tables the figures for white persons are alone given, those for the coloured inhabitants of the camps being left for later consideration if necessary.

There are camps in each of the four colonies, Natal, Cape Colony, Orange River Colony, and the Transvaal. The returns give no statement of the number of camps or of the maximum number in any one camp. Table I, however, shows that the number as well as the size of the camps in Cape Colony must be very small. The only further clue to the number of camps is conveyed in the footnotes to the returns for July and August. In the former it is stated that 'the mortality among the children in the Orange River Colony is mainly due to a severe epidemic of measles at Kroonstad, Springfontein, Kimberley, Aliwal, and Bloemfontein, and to pneumonia supervening during excessively cold weather;" and in the latter we are informed "a severe epidemic of measles was prevalent in the larger camps."

TABLE I.—*Natal (White Population).*

	Number of			Deaths of			Death-rate.		
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.
June ...	901	1,902	5,037	5	15	84	1 in 180	1 in 127	1 in 60
July ...	310	907	1,515	—	—	6	*Nil*	*Nil*	1 in 252
August ...	342	928	1,570	—	3	21	*Nil*	1 in 309	1 in 75
Sept. ...	372	1,593	2,405	1	10	65	1 in 372	1 in 159	1 in 37
	1,925	5,330	10,527	6	28	176	1 in 321	1 in 190	1 in 60

TABLE II.—*Cape Colony (White Population).*

	Number of			Deaths of			Death-rate.		
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.
June ...	31	85	274	—	—	—	*Nil*	*Nil*	*Nil*
July ...	33	83	257	—	—	1	*Nil*	*Nil*	1 in 257
August ...	31	82	257	—	1	—	*Nil*	1 in 82	*Nil*
Sept. ...	28	63	204	—	—	—	*Nil*	*Nil*	*Nil*
	123	313	992	—	1	1	*Nil*	1 in 313	1 in 992

TABLE III.—*Orange River Colony (White Population.)*

	Number of			Deaths of			Death-rate.		
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.
June	5,116	9,646	17,953	32	75	182	1 in 160	1 in 129	1 in 93
July	5,351	11,213	20,132	50	69	369	1 in 107	1 in 163	1 in 54
August ...	5,826	13,381	24,415	30	82	510	1 in 194	1 in 163	1 in 48
Sept.	6,089	14,140	25,118	43	153	885	1 in 142	1 in 92	1 in 28
	22,382	48,380	87,618	155	379	1,946	1 in 144	1 in 128	1 in 45

TABLE IV.—*Transvaal (White Population).*

	Number of			Deaths of			Death-rate.		
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.
June	8,576	16,078	19,811	26	48	310	1 in 329	1 in 355	1 in 64
July	9,665	20,012	24,462	51	118	748	1 in 189	1 in 169	1 in 33
August ...	10,496	22,036	25,983	32	185	1,014	1 in 328	1 in 113	1 in 25
Sept.	10,581	22,226	26,599	75	165	1,014	1 in 141	1 in 135	1 in 26
	39,318	80,352	96,855	184	516	3,086	1 in 213	1 in 156	1 in 31

In order to bring these statistics into manageable compass, the experience of all the camps in the Transvaal, Orange River Colony, and Natal for the four months in question has been combined in the following table, and placed in contrast with that of the small camp or camps in Cape Colony:—

Summary Table.

Camps in:	Number of			Deaths of			Death-rate.		
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.
A. Transvaal, O. R. Colony, and Natal ...	63,625	134,062	194,980	345	923	5,208	1 in 184	1 in 145	1 in 37
B. Cape Colony	117	313	992	—	1	1	*Nil*	1 in 313	1 in 992

It is not assumed that the total number of inhabitants in the concentration camps is the number given in the first three columns of the above table. It must be clearly understood that we are dealing with statistics for four consecutive months. The Government returns do not state whether the population of each monthly return consists in part of the population of the preceding month and in part of newcomers, though this may be assumed to be the case. We have added together the stated populations in each monthly return to obtain the average ratio of deaths to population. Thus, in Table III it will be noted that the ratio of deaths in the Orange River Colony camps among men was 1 in 160 in June, 1 in 107 in July, 1 in 194 in August, and 1 in 142 in September; while the average was 1 in 144.

These ratios have been given in preference to the annual death-rate per 1,000, as they represent a statement of actual facts and not an inference based on the assumption that the same experience would continue during twelve months. The calamitous experience did, however, continue, and became progressively worse during four months; and it is, therefore, justifiable now to proceed on the assumption that it might go on for several months longer, if not for an entire year, and to contrast the above experience with the experience of England and Wales for an entire year. Later on we shall attempt comparison with special communities smitten with measles.

An initial difficulty arises in contrasting the experience of the camps with that for England and Wales. The three groups in the returns are "men," "women," and children," no clue being given as to the definition of child, or the proportion of infants, of children aged 1 to 5, and of children over 5, though these data are essential in order to arrive at satisfactory statistics. In the absence of these data we must have recourse to certain assumptions. We will assume that all the children were under 5 years of age. Probably a very considerable proportion were children aged 5 to 15 years. Inasmuch as the normal death-rate at ages under 5 in England is 14 times as high as at ages 5 to 10, and 25 times as high as at ages 10 to 15, this assumption probably shows the experience of the camps in a too favourable light.

Annual Death-rate.

	Per 1,000 Children.	One Death to x Inhabitants.
In the Transvaal, Orange River, and Natal Camps, based on four months' experience ...	322 6	1 in 3.1
In England and Wales, based on the experience of 1899, for children under 5	55.5	1 in 18.0

When dealing with the death-rates among men and women in the camps a similar though not so great a difficulty arises. The death-rate per 1,000 among persons in England and Wales ranges from 3.4 at ages 15-20 to 33.2 at ages 55-65 and 65.2 at ages 65-75. Without attempting any exact comparison, it is clear that among men the conditions of health varied greatly, the deaths varying from 1 in 321 in the Natal camps to 1 in 213 in the Transvaal camps and 1 in 144 in the Orange River camps.

Women, who normally have a much lower death-rate than men, suffered excessively, the proportion of deaths varying in the camps of excessive mortality from 1 in 190 in the Natal and 1 in 156 in the Transvaal camps to 1 in 128 in the Orange River camps. Amongst the 313 women in the Cape Colony camps only one died.

Fatality of Measles.

The question arises whether the epidemic of measles furnishes a sufficient explanation for the calamitous death-rate shown above. Exact statistics as to the severity (case fatality) of measles are somewhat scanty. We append the following from two reports by Dr. T. Thomson, issued by the Local Government Board, dealing with urban districts in which cases of measles were compulsorily notifiable.

Fatality of Measles per 100 Attacked at each Age.

Ages.	A. Unnamed District.	B. Burton-on-Trent.
All ages	6 1	1.4
0—1	9.6	4 0
1—2	19.7	5.0
2—3	10.2	5.8
3—4	4.9	0.3
4—5	1.5	0.3
5—10	1.1	0.1

Assuming that notification was equally complete in the two above districts, it is clear that the fatality of measles varies greatly in different epidemics. There is the strongest reason for believing that measles, like some other zymotic diseases, undergoes changes in virulence due to unknown conditions. If we assume this to have been the case in the present epidemic, would it reasonably account for the deaths of children in a proportion which, if continued for a year, would have killed 1 out of every 3.1? In District A above, the highest fatality was during the second year of life, when approximately 1 out of every 5 attacked succumbed; but it is unreasonable to suppose that all the Boer children were of this age, and it must be inferred that unless the measles in the camps displayed a virulence hitherto almost unknown other factors must have been at work.

Historical Epidemics of Measles.

Certain historical epidemics described by Hirsch[1] throw light on the problem. The most often quoted is the Fiji epidemic of 1874, which carried off from one fourth to one-fifth of the whole population of the Fiji group. It would be interesting to discuss how far the virulence of this epidemic was caused by the fact that the Fijians, among whom this was a new disease, afforded a new and virgin soil for its virulent development, and how far the lack of proper treatment and the exposure of patients to the most unfavourable conditions of food and housing were responsible for the result. Possibly both sets of factors were at work. We have no facts bearing on the question whether among the Boers who have been brought into these concentration camps measles had previously prevailed. It is quite possible that in their scattered homesteads measles may have long been absent, and that the camps thus furnished a most combustible material when the spark of infection was introduced.

It does not seem, however, that absence of previous measles can account completely for the high fatality of the present epidemic. For analogous conditions we must look rather to the experience of the Confederate troops during the American Civil war, and in Paris during the siege of 1871, than to Fiji. Among the Confederate troops in 1866 measles caused 1,900 deaths out of 38,000 cases of sickness, or a fatality of 20 per cent. In Paris, out of 215 of the Garde Mobile who took measles, 86, or 40 per cent., died. Clearly, therefore, under certain conditions, among which are overcrowding, defective sanitation, and the influence of unsuitable and, possibly scanty,

[1] *Geographical Pathology*, vol. i, p. 167.

food, and depressing mental conditions, measles sometimes assumes a virulence which is phenomenal.

Causes.

What are the causes which are likely to have been productive of the present excessive mortality in the concentration camps?

1. Almost certainly measles and complicating pneumonia are not entirely the cause. When the story is completely told, it will most probably be found that diarrhœa and enteric fever have also been prevalent.

2. Some importance must be attached to the fact that a large proportion of the Boer children have probably never been previously exposed to measles, and have now been exposed under conditions which ensure concentration of the poison of this disease. The conditions are analogous to those of a workhouse into the babies' ward of which measles is accidentally introduced. Those who have experienced how fatal measles is under such circumstances will have little difficulty in partially realising the state of matters in the Boer camps.

3. The Boers are stated to be dirty in their personal habits and difficult to control in regard to the elementary rules of sanitation necessary to maintain a large camp in a wholesome condition. Probably this is true. It is one of the strongest reasons for not permitting dense aggregations of people possessed of habits which are only safe in detached and lonely houses.

4. Possibly unsuitable food and deficient clothing, although every effort has doubtless been made to remedy these defects, greatly aided in producing the result.

5. In view of the excessive mortality from enteric fever among our own troops to which we have repeatedly drawn attention, we are bound to suspect that the same unreadiness to make provision for probable contingencies has characterised the action of the responsible Army authorities in this as in other health matters. The sanitary control of the large camps, whether for soldiers or for Boers, has been most unsatisfactory. One of the most important recommendations of the recent South African Hospitals Commission was as to the necessity for appointing special sanitary officers whose duty it would be to organise and control the sanitary arrangements of all large camps. The sanitary, as distinguished from the medical organisation of the South African Army, has been attended by calamities for which the War Office must be held responsible.

Remedies.

What remedies are practicable?

1. The immediate organisation of sanitary control of the camps on a scale sufficient to meet all requirements.

2. Splitting up of the camps into a much larger number of units, each having a separate organisation; visits from camp to camp being strictly prohibited. The experience of the children's hospitals in Paris gives abundant testimony to the dangers of accumulating a large number of measles patients. These are graphically described by Dr. Grancher,[2] who quoted Dr. Archambault as saying: "Our patients die of the disease which they catch, not of the disease for which they are admitted." This is particularly true of measles. Uncomplicated measles needs to be treated in a separate building from measles associated with broncho-pneumonia; and if disinfection is not required for measles, it is desirable for its complications. By antiseptic and aseptic methods the results of treatment of measles in the Paris hospitals for children have become much more favourable. Such methods may not be practicable under the conditions of camp life. The alternative is that no considerable number of susceptible children must be grouped together. The camps must be split up and to some extent scattered. This point is clearly brought out by Sir Walter Foster in a letter to the *Times*, and he also lays stress on the importance of placing the camps on non-polluted soils. His words, which represent the minimum requirements of the case, may be quoted in conclusion:

> There are two plans for diminishing the evil which, I think, should be tried at once, if they have not already been adopted, namely—(1) The larger camps should be broken up into separated small camps, so as to make the number of persons smaller on each area; and (2) the sites on which the camps are placed should be regularly changed, as fouled soil is a prolific cause of disease, and a potent factor in increasing its virulence.

[2] *Un Service Antiseptique de Médecine.* Par M. le Prof. J. Grancher, Congrès de Méd. de Paris, 1900.

CONTRACT MEDICAL PRACTICE.

How to Deal with the Difficulties of Contract Medical Practice.

Optimist writes: No doubt most readers will agree that Dr. Larking's paper on Contract Practice is one of the most valuable contributions that have been made on this difficult subject. Neither is Dr. Larking, in my opinion, too optimistic: the solution of the question is in our own hands; and the time is most opportune for action. There is, however, just one statement which ought not to pass unmodified. It is essential that we should all join heartily in the enterprise: therefore it will be well to confess that, practically, we all are, or have been, miserable sinners. Dr. Larking says: "The sinners are the younger members of the profession, who, like myself, are led into these practices by an interested public."

Now, it is notorious that in some districts a very large amount of unremunerative contract practice is done by senior members of old-established firms—men who often hold high positions in our Association—by means of junior partners or assistants. I point this out in no spirit of recrimination, but to further the movement Dr. Larking so well advocates. Dr. Larking's assertion makes it appear that the duty of beginning rests entirely with the "younger members," because they alone sin. This is not so; on the contrary, the junior sinners may well look to their elders for an example. Professional and financial considerations make such a step much easier on the part of the old-established members. I believe in most places the younger men would be only too glad to follow a good lead.

Warning to Young Practitioners.

Sir,—I read with much interest in the British Medical Journal of October 19th your very excellent advice to a young practitioner, and only trust that no one will sell his services at such a low price to any body of working men who preach the doctrine of unionism when their own interests are threatened.

Surely at the present day, when we hear of a decreasing number of entries into the profession, and a marked increase in the time required for study necessary to obtain a degree or diploma, not mentioning the expenses to parents or guardians, would it not be well for all young registered practitioners and others who are seeking districts to settle in, not to accept any appointments under Colliery, Friendly Society, or Medical Aid Clubs, without first making searching inquiries as to terms and the reason why their previous medical officer resigned or ceased to act for them? Many practitioners who accept such appointments for perhaps what looks like a tempting offer, find out before long that they are slaves to a committee who only study their own interests, and further that they are without friends among their professional brethren, owing to an omission which might have been easily avoided by a little forethought. Let us stand together and be loyal to each other, upholding the traditions handed down to us, which is the only way to gain public confidence.

I am glad to notice that in many districts doctors are waking up to the importance of combining, which is a sure means of protecting themselves.—I am, etc.,

October 30th. A General Practitioner.

The Royal Free Hospital has received from Mr. George Courtauld the sum of £1,000 to endow a bed in memory of his daughter, the late Miss Louise Courtauld.

At the opening of the Glasgow Veterinary College for the present session Principal McCall gave an address, in which he referred to the unsatisfactory position in which the Scottish veterinary colleges were placed. There were three such colleges but they were all private institutions, and received no Government recognition or support. The Government had instituted a veterinary college in Dublin and given a "grant in aid"; and Mr. McCall urged that the Scottish colleges should be affiliated, and their management organised in such a way that they might be able to earn a grant from the Scotch Education Department.