line of the body as high up as the lower subcostal region . . .; the cervix occupies a midline position, but was originally posterolateral; so when cases of chronic cervicitis complain of any pain other than a bearing-down pain, the pain is felt in the sacral or iliac region at the subrapulsic region? regions rather than in the suprapubic region.

If one can assume that each viscus acquires the foundation of its nerve supply while still in its primary position in the foetus, it follows that the phenomenon of "referred pain" is explicable on anatomical grounds. While the relative position of the viscus is changing with the growth of the foetus, the viscus retains some proportion of its connexion with the central nervous system through the same intrinsic nerves that were laid down when it occupied its primary position, so the painful viscus is "felt" by the central nervous system to be still occupying its primary position, and any pain referable to the viscus is located in its primary position; but the clinician finds that this in fact corresponds with the site of referred pain, no longed occupied by the viscus (cf. the "phantom limb" felt after amputation). A pain which is so severe as to overflow into neighbouring areas is a radiating pain and should not be confused with a referred pain.-I am, etc.,

London, W.1.

E. HESKETH ROBERTS.

Respirator Dermatitis

SIR,—Petro's account (May 23, p. 631) of respirator dermatitis corresponds with the clinical appearances observed in 9 cases among soldiers in hospital.

Patch tests on the forearm, in confirmation of the diagnosis, may be called for where the dermatitis is slight, or has already faded by the time the patient is admitted to hospital, or where the condition is obscured by a secondary impetigo which may involve other areas of the face and scalp. It was found that some of these men were very sensitive to the rubber of the respirator. Consequently, if patch tests are to be performed the precaution of using only small pieces of rubber should be observed. A blister reaction may follow, and if a large surface of rubber is applied the reaction may be severe and take some three weeks to subside.

Positive patch-test results are usually observed at the end of 36 hours, but in one case appeared only after 4 days, and in another a test which appeared to be doubtful had become definitely positive at the end of 4 days. It would therefore be desirable to keep the area tested under observation for a week. Late developing patch-test results have been described with other chemical antigens. It was found that a swab moistened with saline and rubbed over the inside of the rubber of the respirator, applied to the forearm, gave a positive patch test in these cases of respirator dermatitis. Hence the irritant "accelerator" or "improver," the composition of which is known, is saline-soluble and probably sweat-soluble. Thorough washing of the inside of the respirator with soap and water, to remove the dried sweat with the dissolved antigens, might have avoided a dermatitis in the less susceptible individuals. If possible, the piece of rubber, or the saline swab which has been rubbed over the inside of the rubber of the respirator, should be kept in place by bandaging rather than strapping, as the latter may itself give rise to a reaction and thus obscure readings.

One man who developed a respirator dermatitis has since noticed redness and itching whenever he wears his new respirator, which does not contain the offending chemical known to the authorities. He gave a positive reaction only after two applications of the rubber of the new respirator, separated by an interval of a week and applied to the same area of skin. There are, of course, many potential irritants among the chemicals used in the preparation of rubber, and Cox (India Rubber Journal, 1936, 92, 724) has stated that rubber and latex can break down under the action of sweat to produce a resinous substance which is a potential irritant.—I am, etc.,

L. FORMAN, M.D., F.R.C.P. London, W.1.

"Positive Health"

SIR.—May I suggest this simple explanation as the basis of the definition: Positive health means health through efforteffort on the part of the patient, effort on the part of the medical attendant, and effort on the part of the local and national health organizations.-I am, etc.,

M. B. DOUGLAS.

Tetanus after Sulphonamide Treatment of Cavities

SIR,—Mr. J. C. Cherry (Aug. 1, p. 142) describes an interesting method of sterilizing a sulphonamide. I should like to suggest, however, that a "negative pressure" of 16 lb. to the sq. in. can only be obtained when the barometer is in the region of 32.5 inches, even with a theoretically perfect vacuum. This will reduce the practical value of the method very considerably in England whatever may be the case in the Free State.-I am, etc.,

Shipley.

H. S. Russell.

Obituary

News has reached this country of the death at his home at Birtley, Elizabeth Bay, of Dr. RALPH WORRALL, for many years a leading gynaecologist in Sydney. He was born in Ireland in 1859 and was educated at the Church of England Diocesan School, Waterford, and Queen's University, Belfast; he took the M.D. degree of the old Royal University of Ireland in 1878 and the M.Ch. two years later, after serving as resident at the Royal Infirmary, Belfast. In the early 'eighties he was in turn medical superintendent of the Mill Road Hospital, liverpool, and honorary assistant physician to the Starley. Liverpool, and honorary assistant physician to the Stanley Hospital, Liverpool. He then sailed for Australia and made his home in Sydney, and in 1886 began his long career as gynaecologist to the Sydney Hospital. In 1914 he was appointed surgeon to the Coast Hospital at Sydney. Dr. Worrall had been a member of the British Medical Association for 60 years and represented his Division at the Annual Meeting of 1907 at Exeter. In 1933 he published a paper in the British Medical Journal on total hysterectomy for non-malignant conditions, describing the technique of a method first performed by him in 1914 and for the 532nd time in 1932. He was a Founder Fellow of the Royal Australasian College of Surgeons, and an Honorary Fellow of the American College of Surgeons.

Dr. R. L. Worrall writes: My father, the late Dr. Ralph

Worrall, whom I assisted at many operations, was distinguished by his medical judgment and human sympathy as well as by his technical skill. Among his contributions to gynaecology was his method of total hysterectomy, whereby removal of the cervix still left intact the central attachments of the pubo-cervical and sacro-cervical ligaments, these helping to preserve the structure of the vaginal vault after the operation. Towards the end ture of the vaginal vault after the operation. Towards the end of his career my father was invited by the Mayo brothers to visit their clinic at Rochester, and while in the United States on this visit he was elected an Honorary Fellow of the American College of Surgeons. He spoke in the highest terms of the American surgery which he saw, and was much impressed by the comprehensive efficiency of the Mayo Clinic. My father was a man of many interests, and did not let specialization narrow his field of medical and cultural vision. To the end of his active life he combined theoretical study with practice, taking a keen interest in all the major advances of medicine. I am much indebted to him for many things.

The Services

NAVAL AWARDS

The George Medal has been awarded posthumously to Surg. Lieut.-Cmdr. R. M. Bremner, R.N., for great bravery and

Lieut.-Cmdr. R. M. Bremner, R.N., for great bravery and devotion to duty in saving life.

The King has granted unrestricted permission to Surg. Lieut.-Cmdr. J. C. Moor, R.N.V.R., to wear the War Cross (Third Class) conferred upon him by King George of the Hellenes for services to the Allied cause.

The Royal Naval Volunteer Reserve Officer's Decoration has been awarded to Acting Surg. Cmdr. A. H. Shelswell, R.N.V.R.

ARMY AWARDS

The King has granted unrestricted permission to Lieut.-Col. (Acting Col.) A. J. Beveridge, O.B.E., M.C., and Capt. W. M. Burgess, R.A.M.C., to wear the Norwegian Military Cross conferred upon them by King Haakon of Norway in recognition of services in the cause of the Allies.

CASUALTIES IN THE MEDICAL SERVICES

Lieut.-Col. AILWYN HERBERT CLARKE, M.C., R.A.M.C., died from heart failure on June 23 in a prisoners of war hospital in Italy. He was born on March 4, 1893, the youngest son of the Rev. H. S. Clarke of Weybridge, and received his professional education at St. Thomas's Hospital, qualifying M.R.C.S., L.R.C.P. in 1916. He served in France in the war of 1914-18, gaining the M.C., and in 1921 took a permanent commission in the R.A.M.C. Between 1923 and 1927 he saw service in Egypt, in the Sudan, and at Shanghai, in 1928 he served with the British Army of the Rhine; and in the following year he was posted to India, in the Punjab, where he remained until 1935. After a brief spell in England he went to Egypt in October, 1935, and remained there until the end of 1936, when he returned to England. On the outbreak of the present war he first served for a few weeks on a hospital ship and then was stationed at a Scottish general hospital until June, 1940, when he was posted to Egypt, being taken prisoner a few months later. He leaves a widow. He had been a member of the B.M.A. since 1924.

Capt. MARTIN DUNSMORE WINNING, R.A.M.C., was killed on active service in Burma in March. He was born on March 12, 1912, and was educated at the University of Glasgow, where he graduated M.B., Ch.B. in 1938. He entered the R.A.M.C. as temp. lieut. in February, 1940, and was promoted capt. a year later. His home was at Kilmarnock. He was a member of the B.M.A.

Surg. Lieut. James Younger Woodhouse, R.N., who died suddenly on July 21, was educated at the University of Durham, where he graduated M.B., B.S. in 1925. After holding appointments at the Royal Victoria Infirmary, Newcastle-upon-Tyne, at Sunderland Royal Infirmary, and at Wallsend, he entered the Royal Navy as surg. lieut. in 1929, but relinquished his commission in 1933 and entered into partnership at Malton, Yorkshire. He re-entered the Royal Navy in July, 1939. He leaves a widow and one son.

Surg. Lieut. WILLIAM PHILLIPS, R.N.V.R., who was previously reported missing and who is now presumed to have been killed, was born on April 3, 1912, the third son of Mrs. Phillips of Burnham Market. He qualified M.R.C.S., L.R.C.P. in 1938 and had held the post of house-surgeon at West Norfolk and King's Lynn General Hospital. He entered the R.N.V.R. as prob. temp. surg. lieut. in May, 1940. He was a member of the B.M.A.

Prisoner of War.—Major I. A. B. Cathie, R.A.M.C. Missing.—Temp. Surg. Lieut. A. P. Curtin, R.N.V.R.

DEATHS IN THE SERVICES

Lieut.-Col. CLEMENT MALLINS, I.M.S. (ret.), died at Worthing on July 29, aged 87. He was born on May 15, 1855, and was educated at Trinity College, Dublin, where he graduated M.A., M.B., M.Ch. in 1877, proceeding M.D. in 1888. He also took the M.R.C.P.I. in 1881 and the D.P.H. of the London Colleges in 1891. Entering the I.M.S. as surg. in 1879, he became lieut.-col. after twenty years' service, and retired in 1899. His Indian service was spent mostly at Hyderabad. He took part in the Tirah campaign on the North-West Frontier in 1897-8, gaining the Frontier medal with a clasp. He rejoined for service in the war 1914-18, serving in England for two years on a medical board at the War Office. He was a brother of the late Surg. Henry Mallins of the Bengal Service.

Medical Notes in Parliament

Diabetes in Death Classifications

On July 28 Mr. Leach asked the Minister of Health whether there had been any change in the nomenclature of deaths in respect of certificates attributing death to diabetes and one or more other diseases. Mr. Brown replied: In years before 1940 the statistical classification of deaths in respect of certificates attributing the cause to diabetes in conjunction with one or more other diseases was decided by means of rules giving the precedence of one disease over another as laid down in the Registrar-General's Manuals of the International List. These rules gave a high precedence to diabetes over other diseases. From 1940 classification in such cases has been carried out in accordance with the order of statement of the various causes on the certificate by the certifying medical practitioner, with certain exceptions laid down in the Manual issued in 1940. Since diabetes is frequently certified as merely a contributory cause of death, in association with another disease considered by the certifier as more important, the effect has been to reduce the number of deaths classified to diabetes in the statistics of cause of death, and the corrective factor to be applied to numbers of deaths in years before 1940 is 0.69. In the recent quarterly returns of the Registrar-General, the neces-

sary correction had been applied to the diabetes deaths there shown for 1938 and 1939.

X-ray Examination of Recruits

On July 28 Mr. HEWLETT asked the Secretary of State for War what would be the estimated cost of x-ray examination of recruits on enlistment so as to avoid subsequent controversy over borderline cases. Sir James Grigg said that in view of the many uncertain factors he could give no reliable estimate of the cost. The difficulty of introducing any such scheme would be primarily in the shortage of the necessary apparatus and personnel.

Mortality from Pneumonia

On July 28, Mr. Ernest Brown told Mr. Leach that the number of deaths from pneumonia (all forms) registered in England and Wales from 1931 to 1941 were: 1931, 34,914; 1932, 30,743; 1933, 31,259; 1934, 29,751; 1935, 27,843; 1936, 28,890; 1937, 30,331; 1938, 27,467; 1939, 23,403; 1940, 29,195; and 1941, 26,418. The figures for 1931-9 were corrected to agree with the 1940 classification of deaths, and differed from those published in the Registrar-General's Statistical Review Part I, Table 6.

Proposed Transfer of V.A.D.s to A.T.S.

On July 28 Sir James Grigg, replying to Major Milner and Squadron Leader Fleming, said he received last week a deputation representing the British Red Cross Society and the Order of St. John of Jerusalem on the question of the proposed transfer of V.A.D. nurses to the A.T.S. As a result he proposed to invite these organizations to appoint representatives to a committee to be set up under an independent chairman to consider the relationship of mobile V.A.D.s to the Army. No final decision had yet been taken on the proposed transfer, and would not be taken until the committee had reported.

National Milk Scheme Grows

During a debate on agriculture and food, in the House of Commons on July 28, Mr. MABANE stated that the national milk scheme had progressed very well indeed; the percentage of the possible beneficiaries—expectant mothers and children—taking advantage of the scheme had risen from 70 to 87%. There were now 3,022,000 persons taking advantage of the scheme.

Glasgow Small-pox Cases

On August 4 Mr. Groves asked the Secretary of State for Scotland if he was aware that a delay of 17 days occurred before Glasgow doctors were informed of the existence of dangerous and infective cases of small-pox; and why, although local general practitioners advised the local authorities of the seriousness of the position, no action was taken. Mr. Johnston said that on June 14 the medical officer of health of Glasgow sent a letter to medical practitioners informing them that 6 members of the crew of a ship which arrived in the Clyde on May 29 had since contracted small-pox, that contacts were under surveillance, and that practitioners should inform him if any suspicious case came to their notice. All possible action to prevent the disease from spreading had been taken immediately the ship arrived, including the vaccination of the crew and passengers, and up to the date of that letter there were no cases in the city and therefore no need for a general vaccination campaign. The first case in the city itself appeared on June 25, and the decision to initiate a general vaccination campaign was reached on June 28. All needful publicity measures were taken immediately, and vaccination centres throughout the city were opened and began work on July 1.

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On the same day Mr. JOHNSTON, replying to Mr. A. Edwards, said that the number of cases diagnosed as small-pox in Glasgow since the arrival of the ship was 40. Of this number, 9, including the original case, were members of the crew and 1 was a passenger. All the crew and passengers were vaccinated on May 29. Information as to the revaccination of passengers after May 29 was not available, but some members of the crew who remained in Glasgow were revaccinated on June 11. The original case was not recognized as small-pox until the ship had not yet docked. The Port Health Authority, which was also the public health authority of Glasgow, was aware of the diagnosis before the ship docked at Glasgow. The medical officer of health was advised immediately the case was recognized as small-pox.

Venereal Disease in Forces

On Aug. 4 Sir James Grigg informed Mr. George Griffiths that special attention was being given to the spread of venereal disease among the troops; the necessary lectures were being given regularly, and precautionary facilities were available in