connexion with district nursing, with nursing recruitment, with hospital diet, catering, and domestic supervision, and with the emergency bed service are well known. In the new hospital arrangements its function as an agency of distribution, although it will continue, may be expected to bulk less largely in comparison with other activities. But it is no small advantage to have an organization with such large resources under its own control, giving a guarantee of freedom and elasticity to the new Service. It will encourage voluntary work in that large field which lies just beyond the border of State provision, and, as the annual report states, it will be open to hospitals in the metropolitan area, whether teaching hospitals or those coming under the four regional boards, in any matters which are experimental or which seem, to go beyond the normal activity of a hospital under the Act, to lay proposals before the Fund and seek its assistance.

In 1947, although the National Health Service Act was already law, and the shape of the hospital service was clearly seen, a sum of £34,000 was contributed to the King's Fund by subscribers and donors. This, however, is only about one-tenth of its total income, which comes mainly from investments. The ordinary distribution, to 145 hospitals and 53 convalescent homes, was £303,250. Until it has been decided how the resources of the Fund can be most usefully applied, a conservative policy may be necessary, but the Fund is looking forward not to restriction but to increased opportunities. Among the immediate activities are the inauguration of an information service, the continuation of bursaries for the training of hospital administrators and the establishment of new bursaries for hospital almoners, and the setting up, in consultation with the Ministry of Health and the Royal College of Nursing, of a resident training course on new lines for those about to take up posts as ward sisters.

Nova et Vetera

W. G. GRACE

William Gilbert Grace was born on July 18, 1848, and fifteen years later achieved prominence as a cricketer when he scored 32 runs in a match against the All-England Eleven. He was the fourth son of Mr. Henry Mills Grace, who practised as a surgeon at Downend, near Bristol, and was himself an ardent cricketer. His uncle, Alfred Pocock, and his father introduced him at an early age to the delights of our national sport, and when only nine years old he played for West Gloucestershire against Bedminster. At the age of 17 he played twice for the Gentlemen v. Players, being selected then for his prowess at bowling rather than batting, and thereafter continued to play in first-class cricket until 1900. In first-class matches his highest score was 344, made in 1876 for the M.C.C. against Kent; two days later he made 177 for Gloucestershire v. Notts, and two days after that 318 not out for the same county against Yorkshire.

Endowed with a splendid physique—he stood 6 ft. 2 in., and was powerfully built—"W.G." excelled also at running and hurdling, and two days after scoring 244 not out for England v. Surrey in 1866 he won a race at the National and Olympian Association meeting at the Crystal Palace. Commenting on Grace's fine physique, Dr. Clippingdale pointed out¹ that the surname derives from the French "Gros," a sobriquet originally bestowed on men of large stature. As soon as the cricket season was over he threw himself energetically into sports more adapted to the English winter—running with the beagles, shooting, and hunting.

Grace qualified in 1879 with the L.R.C.P. of Edinburgh and the M.R.C.S. of England, and practised at Bristol until 1899, being at one time medical officer to the Barton Regis Union, vaccinator to a district in the union, and surgeon of the Pennywell Collieries. In that year he gave up practice and moved to Sydenham to become secretary and manager of the London County Cricket Club. He died of heart failure after a short illness in 1915.

¹ *British Medical Journal*, 1915, 2, 736.

Correspondence

Pain in Phantom Limbs

SIR,—The correspondence in your columns on this subject has been extremely interesting. It seems possible that the disappointing results from the treatment of this condition may be due in part to a failure to appreciate that at least two distinct types of phantom limb pain may occur in amputation stumps. The presenting symptom of pain may be (1) a painful paraesthesia associated with a tender neuroma, or (2) causalgia. It is to Weir Mitchell that we owe the term causalgia, and it is clear from his writings that he restricted the use of the term to the immoderate burning pain which is a *sine qua non* of the condition. Modern usage has extended the term to include the peripheral manifestations of the syndrome (coldness, hyperidrosis, hyperalgesia).

Phantom limb pain may be of a causalgic type and give a typical history, but on the other hand, and much more commonly, it may take the form of painful paraesthesia. This latter type of pain is quite different from that of causalgia, being of a stabbing, shooting, or tingling quality, in which the characteristic burning of causalgia is absent. Reference of pain to the phantom limb occurs in both types of case. Some degree of paraesthesia is common to all neuromata, whether of amputation stumps or of peripheral nerve injuries, and in the large majority it can only be elicited by an obvious mechanical stimulus of the neuroma. Associated with this "stump tenderness," however, may be a paraesthesia of a much more serious and disabling nature, which occurs—apparently spontaneously—as a result of the constant irritation of regenerating sensory nerve fibres which are sprouting freely into the scar tissue from the cut end. This type of phantom limb pain, the aetiology of which is mainly if not entirely peripheral, can usually be relieved by a careful resection of the neuroma with or without reamputation of the stump. It is unlikely to be affected by sympathectomy. On the other hand, unfortunately, the causalgia is very seldom if ever cured by local operative procedure alone.

A minute investigation of the history of the onset and evolution of the pain, of its quality, and of its aggravating and relieving factors should help to differentiate between the two types and thus act as a valuable guide to the form of operation most likely to prove successful.—We are, etc.,

R. E. M. BOWDEN.
J. R. NAPIER.

London, W.C.1.

Short Leg

SIR,—May I reply to the interesting letter of Captain Robert Fuller and Lieut. Douglas L. Woolf (July 10, p. 109)? The first thing to decide when the examination of a patient reveals a short leg is if the shortening is real or apparent. A real short leg will cause a tilting of the sacral top and is bound sooner or later to lead to a scoliosis with the convexity towards the shorter leg. In that case a lift under the short leg, sufficient to make the sacral top level, will be indicated. If, however, the shortening is due to fixed backward rotation of the ilium on the sacrum a lift will make the sacral top level, but will at the same time make the backward rotation of the ilium permanent. The resultant ilio-sacral strain is one of the most fruitful causes of chronic backache. The rational treatment of this type of short leg is forward rotation of the ilium by manipulation, which will equalize the length of both legs, make the sacral top level, and either prevent a scoliosis or, if it has developed, bring the lumbar spine into normal alignment.

There are two methods to decide if the shortening is real or apparent. The one is a standing A.P. x-ray of the pelvis and lumbar spine. If a thin wire exactly parallel with the floor or the surface on which the patient is standing while the film is exposed is fixed across the Potter-Bucky, differences in the level of the trochanters, femoral heads, and acetabula down to 1/4 in. (0.63 cm.) or even less can be easily appreciated. The second method is of help only indirectly in so far as it helps to determine the range of mobility of the sacro-iliac joints in a given case. A short left leg, for example, may be due to a