

Suburban tanks of the L.B.S.C.R.

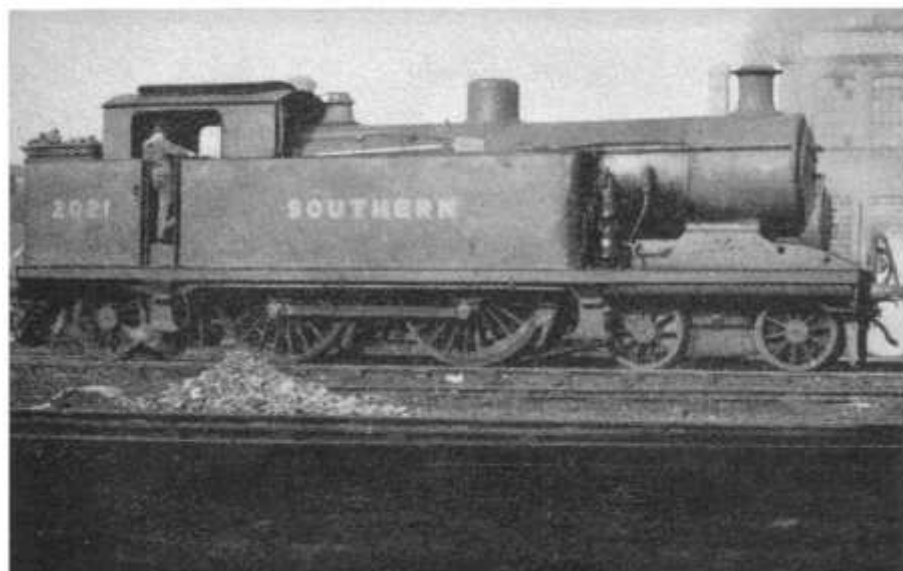
By J. PELHAM MAITLAND

IN the article entitled "The British 4-4-2 tank engine" by Mr. Peter Winding, in the August, 1962, issue of *The Railway Magazine*, the author's references to Mr. D. E. Marsh and the 4-4-2 tank engines of the London, Brighton & South Coast Railway may make some personal notes, compiled during the second world war, of interest, particularly as they afford some explanation to the query, inferentially raised, concerning Marsh's adoption of the 4-4-2 wheel arrangement in the face of the demonstrable superiority of the 0-6-2 tank locomotive.

The general substitution of six-coupled for four-coupled tank engines for suburban passenger services may be dated from the year 1897, when the 0-6-2 tank type with 5ft. 0in.-dia. wheels first went into traffic.

four-coupled engines for the services being at the time adequately handled by the 0-6-2 tanks, and I therefore made it an objective to ascertain—be it understood with every discretion—the causes for this apparently retrograde step, and the following conclusions are submitted as the results of this investigation.

At the time of the assumption of office as Locomotive & Carriage Engineer—not Locomotive Superintendent—of the London, Brighton & South Coast Railway by Mr. D. Earle Marsh in 1905, there existed a "maintenance crisis"—as exemplified by the number of engines awaiting repair in "cemeteries" at East Grinstead, Horsted Keynes, and between Eridge and Ashurst—which arose out of circumstances which are not relevant to the matter now under consideration. The



No. 21 of the L.B.S.C.R. in Southern livery and re-numbered 2021, at Stewarts Lane in April, 1949. The original 6ft. 9in. drivers and distinctive "B4" type front-end were retained to the end. It was scrapped in September, 1951

Photo: Peter Winding

In handling the growing suburban services, they immediately showed a marked improvement on anything previously available, and had the added advantage of being a most useful type of mixed-traffic locomotive.

To render this type of still greater utility, the diameter of the driving wheels was increased to 5ft. 6in., the first engine of this series appearing in 1902. These came up to every expectation, and also were found capable of dealing with any class of excursion train then run. Oddly, they accelerated from stations with suburban trains more rapidly than did the engines with 5ft. 0in.-dia. wheels. Of this series, 30 were constructed.

In view of the highly successful performance of the 0-6-2 tank classes as a whole, and of the latter series in particular, it was with great surprise that Marsh, in 1906, decided to revert to

position did, however, have some bearing upon Marsh's decision, as he appears at one time to have been under the impression that the maintenance of a six-coupled engine was greater than that of a four-coupled one. This opinion became revealed when the leading side-rods of a number of the 5ft.-6in., and a few of the 5ft.-0in., series of 0-6-2 tanks were removed, with a view to reducing tyre and general wear. So far as the immediate objectives were concerned, the results were completely negative, but the performance of the engines while so mutilated occasioned considerable loss of time, especially when starting away from stations. Consequently, the rods which had been removed were quietly replaced after a short period.

Marsh doubtless had observed that both the London & South Western Railway and the South Eastern & Chatham Railway, with their heavy

suburban traffic, appeared to manage quite comfortably without recourse to six-coupled locomotives for this purpose, so why should not the L.B.S.C.R.? He doubtless did not realise that the conditions on the L.S.W.R., with its stations, on the average, further apart, and the S.E.C.R., with ancient and much lighter stock in general use, did not admit of a valid comparison.

It has been pointed out that at about the time of Marsh's appointment to Brighton, the Great Northern Railway, from which company he came, introduced the 0-6-2 tank type for its London suburban services (inspired, it has been alleged, by the success of the 5ft. 6in. series on the L.B.S.C.R.), in replacement of the 4-4-2 tank design then in general use on such services. This statement, taken by itself, leaves a deal to be desired. In fact, the former class was

introduced to supersede the Ivatt 0-8-2 tanks, designed especially for the work in question, but which had proved unsuitable; it was in reality a somewhat comparable reversion to that effected by Mr. Marsh on the L.B.S.C.R.

Despite the ghastly failure of the "11," "12" and "14" class tanks of his design on the L.B.S.C.R., Marsh remained enamoured of the four-coupled locomotive until persuaded by Basil Field to adopt a six-coupled design in the express tank No. 325, *Abergavenny*, in 1910.

In his reference to No. 21 of Marsh's "13" class express passenger tank engines, Mr. Winding mentioned the fact that this particular locomotive retained its 6ft. 9in. driving wheels; it also retained its distinctive "B4" type front-end and motion, along with the original 6ft. 9in. driving and coupled wheels to the end.