From THE COLLIERY GUARDIAN - 1st November, 1862.

THE LILLESHELL COMPANY'S TANK LOCOMOTIVE ENGINE

The Lilleshall Company of Shifnal, Shropshire, having had four or five tank engines at work for the last 12 years, constructed by various makers, have succeeded in producing an engine which is especially adapted for collieries, mineral traffic and contractors purposes and where there are sharp curves and heavy gradients. It is built extra strong to resist the great wear and tear to which engines of this description are subject and the severe strains and shocks which are occasioned by the traction of heavy loads over uneven roads. The cylindrical part of the boiler is 10 ft. in length and 3 feet in diameter and is of 7/16 inch plates, rivets. The boiler is fixed unusually low in the frame to avoid top weight. The outside firebox is semi-cylindrical and eccentric with the boiler; it is of 3/8 inch plate and is 2.6 feet long and 4 ft. wide. The boiler and firebox are covered with a wooden lining and a sheet iron base, bound with wrought-iron hoops. The inside firebox is of copper; the top sides and the front plate being 3/4 inch thick and the tube plate a 1/2 inch thick. The top of the firebox is supported by six strong roof stays of flat iron with bolts passing through the stays and top of the box. The external and internal boxes are screwed together with hoops of copper studs, 7/8 inch in diameter, 11 wire-gauge next the firebox and 14 wire-gauge at the smoke box end. The tank is semi-cylindrical and is fitted on the back of boiler and supported on four strong wrought-iron brackets. The coal box is arranged behind the driver; the engine has outside cylinders 13 inches in diameter and 20 inches stroke; and the metallic pistons which are of very simple and durable construction, have two brass rings in each and are self-acting by the pressure of the steam upon the valves. The valves work direct and the regulator which is in the smoke box is easy of access and can be examined without deranging any other part of the machine. The copper steam pipe passes through the entire length of the boiler and being thoroughly screwed into the tube, into the plate of the smoke box, and into the front plate of the outer firebox, it forms a good stay. The blast pipe is reduced in length and a loose gland fitted in to allow the size of the muzzle to be varied in order to suit the quality of the coals. The length motion is of steel, hardened, and the arrangement is such as not to require balance weights, while at the same time, admitting of being kept low in the bottom. The eccentrics are of cast-iron; the hoops of brass and there are four strong wrought-iron wheels, 3 ft. 9 inches in diameter, hooped with low iron tyres coupled; the coupling rods have brasses at each end and the engine is fitted with Gifford's injector, blow-off cocks; and all the usual appliances for showing the level of water. One of the engines may be seen at the Company's works at Shifnal(?).

"In our impression of the 11th ultimate, we called attention to the Companies in the Eastern Annexae, containing specimens illustrative of their cold blast pig iron (and hot blast from the same material) castings, puddled bars, plates, malleable iron and wire, made from the same. On the same occasion we drew attention to their speciments of blackstone calcined, argillaceous ironstone, Randle furnace coal, cold furnace coal, with several other varieties, and it only now remains for us to wish the Company the success that is due to their spirited enterprise."