No. 627,112. Patented June 20, 1899.

L. GROSS.

TEMPLET FOR DRILLING WOODEN RAILWAY CROSS SLEEPERS.

(Application filed Jan. 17, 1899.)

(No Model.)

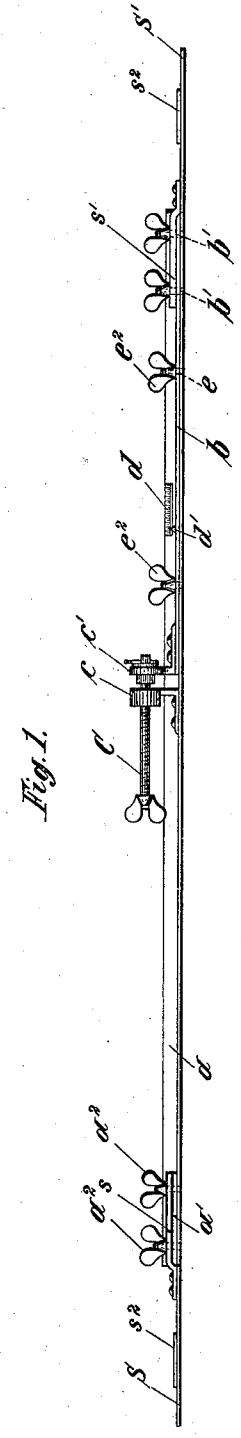


Fig. 1.

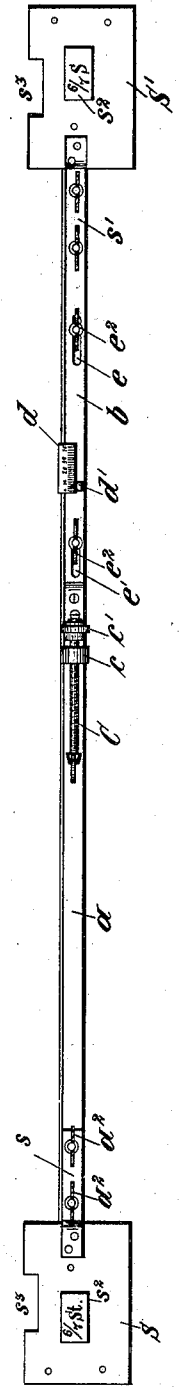


Fig. 2.

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UNITED STATES PATENT OFFICE.

LUDWIG GROSS, OF MERZIG, GERMANY.

TEMPLET FOR DRILLING WOODEN RAILWAY CROSS-SLEEPERS.

SPECIFICATION forming part of Letters Patent No. 627,112, dated June 20, 1899.

Application filed January 17, 1899. Serial No. 702,389. (No model.)

To all whom it may concern:

Be it known that I, LUDWIG GROSS, royal station-master, a subject of the Emperor of Germany, residing at Merzig, in the Kingdom of Prussia and Empire of Germany, have invented certain new and useful Improvements in Templets for Drilling Wooden Railway Cross-Sleepers, of which the following is a full, clear, and exact description.

This invention relates to an apparatus for enabling the wooden cross-sleepers laid down on railways to be previously ready drilled in case of new construction, reconstruction, or the interchanging of single sleepers, this arrangement being suitable for all gages and for every kind of bed-plate. As compared with the methods hitherto employed—that is, those carried out without the templet—there is a considerable saving of time and labor, the work, besides, being much more accurately performed. The fact that the sleepers can be prepared apart from the rails is one of very great importance when an interchange of sleepers is effected in connection with rails over which trains are being run, it being possible to have the sleepers ready drilled before fixing them. It is also possible to employ a drilling-machine, which certainly produces better work than can be done by hand.

In the accompanying sheet of illustrative drawings, Figure 1 is a front view, and Fig. 2 a plan view, of the templet.

The templet consists, substantially, of a rail or bar composed of two parts and longitudinally adjustable, to the end of which the pattern-plates or templets are removably attached. The principal part a, formed of angle-iron, carries a pattern-plate S and serves as a guide for the other part b, which is provided with a second pattern-plate S'. At the left-hand extremity the screw-bolts a^2 pass through the flat iron additional piece a', which is of the same thickness as the part b of the rail or bar. By means of these screw-bolts the templet is removably fixed, this being effected with the assistance of the flat piece s, riveted to S. Near its center the rail or bar a carries the block or trestle c, with the nut for the adjusting-screw C. Farther to the right, on the vertical portion of the angle-iron rail or bar a, is the scale d, the division of which is into millimeters, from "0" to "40." The zero-point corresponds with the normal gage of way. Finally, the screw-bolts e for guiding and fixing the second part b of the rail or bar are fastened to a. The part b is made of flat iron and carries on its outer end the bolts b' for fixing the second pattern-plate and the piece s'. Farther on in the part b the pointer d', which acts in conjunction with the scale d, is seated and is held firmly at the end of the block or trestle c', which receives the end of the adjusting-screw C. Slots e' in b surround the bolts e. When the nut e^2 is loosened, the adjusting-screw C can be turned and, with the assistance of the scale, the effective length of the apparatus be fixed, whereupon the nuts e^2 are screwed up.

The pattern-plates S S' correspond with each other and with a certain form of the bed-plate, of which there are about fifteen to twenty sorts. The perforation corresponding with the particular forms of bed-plates is suitably indicated in a shield or plate s^2 on each pattern-plate or templet. The pattern-plates or templets are furnished with recesses s^3, which define the gage of way. In addition to this the pattern-plates or templets have holes in them corresponding with those to be drilled in the sleepers, preferably not of the same size, however, as the center must first be ascertained, but about one millimeter wide, in which a pin-punch for marking the holes is inserted.

The apparatus is applied in the following manner: For the normal gage of way the pointer is brought to *nil* or zero on the scale by turning the adjusting-screw to the right. After the two nuts e^2 have been loosened the slide, with the pointer, moves to the right and simultaneously therewith the right-hand pattern-plate or templet S' and the gage of way s^3, so that any amplification of gage necessary at curves for the perforation of the bed-plate, as likewise for the gage of way, can be obtained. When the right gage has been determined, the two nuts are screwed up and the marking of the sleepers can be commenced, provided that the proper pattern-plates or templets for the bed-plates are also introduced and firmly screwed. One workman preferably lays the templet on the sleeper and holds it fast, while another workman with the prick-punch marks the holes to be drilled,

two other (or the same) workmen operating the drilling-machine. In this manner a large number of sleepers, which have the advantage of keeping the rails exactly to the gage of way, can be made ready in a very short time. The changing of a part of the templet requires but little time, the apparatus thus being, so to speak, always ready for use.

It is obvious that without departing from the scope of the invention modifications could be made in many parts of the apparatus having the form here described and illustrated. For instance, alterations might be made in the external form of the parts of the rail or bar, in the mutual guiding, the center of adjustment and fixation, and so on.

What I claim, and desire to secure by Letters Patent, is—

1. A templet for drilling wooden railway-sleepers consisting of two bars, adjustable in relation to each other and variable in length, to the ends of which the interchangeable pattern-plates with recesses for indicating the gage of way, and holes for the marking of those to be drilled in the sleepers, are fixed.

2. A templet for drilling wooden railway-sleepers consisting of the part a of the rail or bar with screw-bolts a^2 for fixing a pattern-plate S, a block or trestle c holding the nut for the adjusting-screw C and a scale d the *nil* or zero point of which corresponds to the normal gage of way, a second part b of the rail or bar, longitudinally adjustable on the first, guided by slots e' and screw-bolts e and fixed by means of the last named, with screw-bolts b' on the outer end for fixing a second pattern-plate S′ with a pointer d' acting in conjunction with the scale d and a block or trestle c' in which the adjusting-screw C is held, and interchangeable pattern-plates or templets S S′ furnished with recesses s^3 for determining the gage of way, and holes for marking those to be drilled in the sleepers.

In witness whereof I subscribe my signature in presence of two witnesses.

LUDWIG GROSS.

Witnesses:
CHAS. E. BARNES,
WILLIAM H. MADDEN.