

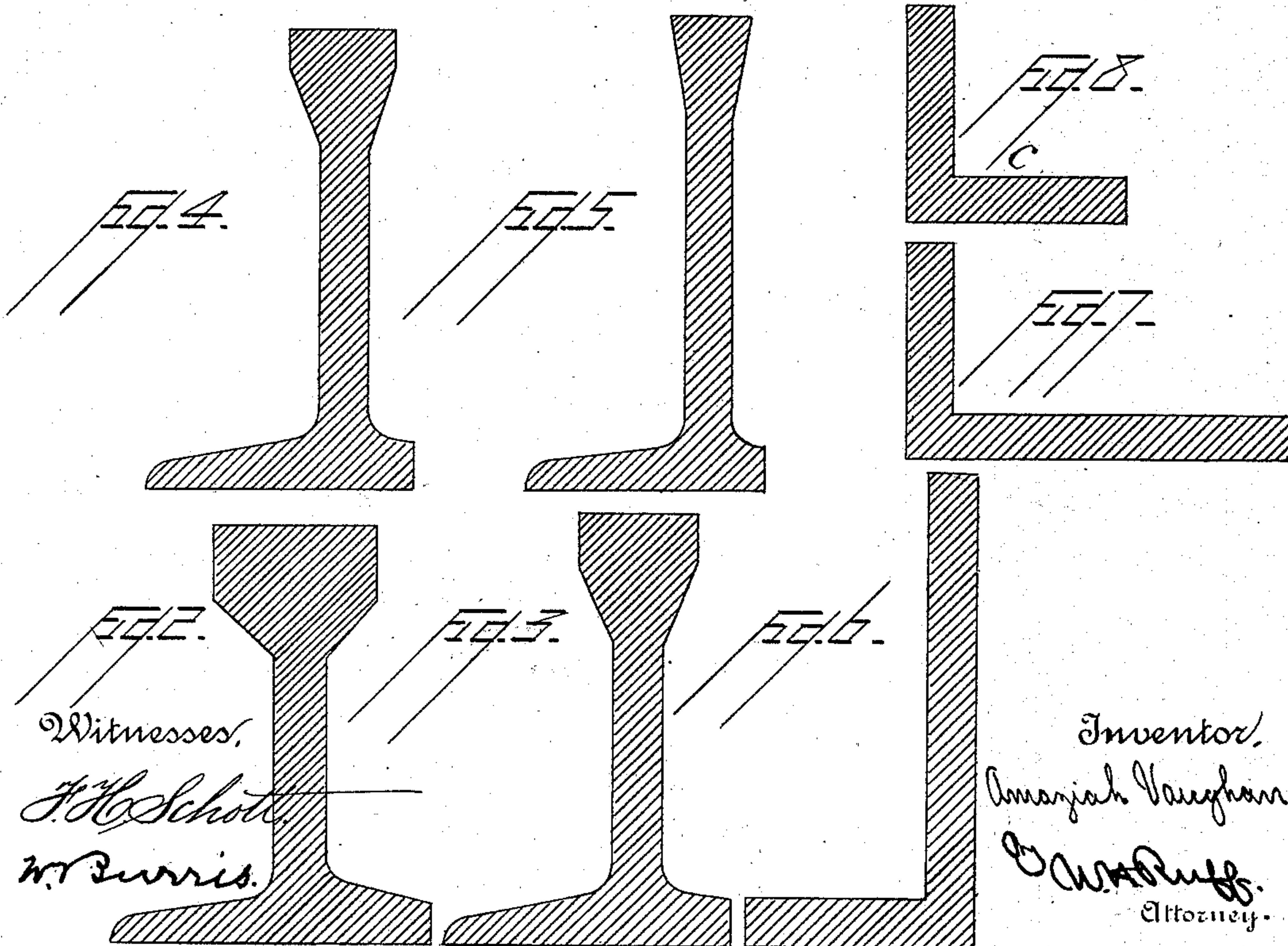
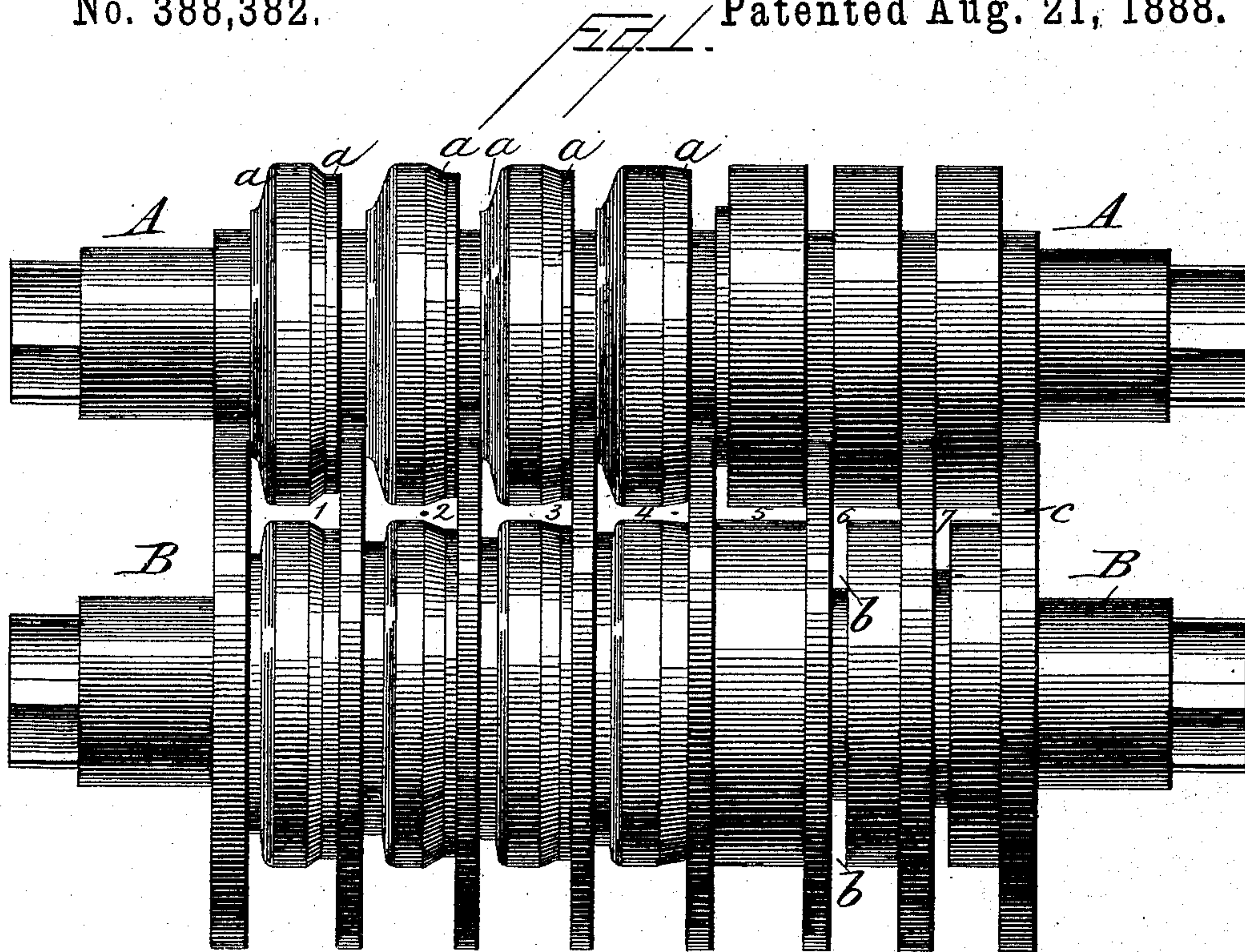
(No Model.)

A. VAUGHAN.

ROLL FOR CONVERTING OLD RAILS INTO ANGLE IRON.

No. 388,382.

Patented Aug. 21, 1888.



UNITED STATES PATENT OFFICE.

AMAZIAH VAUGHAN, OF TERRE HAUTE, INDIANA, ASSIGNOR TO FIRMAN NIPPERT, OF SAME PLACE.

ROLLS FOR CONVERTING OLD RAILS INTO ANGLE-IRON.

SPECIFICATION forming part of Letters Patent No. 388,382, dated August 21, 1888.

Application filed June 14, 1888. Serial No. 277,037. (No model.)

To all whom it may concern:

Be it known that I, AMAZIAH VAUGHAN, of Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Rolls for Converting Old Rails into Angle-Irons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in rolls for the conversion and reduction of rails and the butts and stub ends of old steel railway-rails to angle irons, the same being accomplished by means of a peculiar set of grooves or passes, which are especially adapted for this purpose.

The object of the invention is to form a complete and durable angle-iron by gradually compressing and offsetting the head and flange of the rail without plication, seam, or other defect; and with these ends in view my invention consists in the certain features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is an elevation of a pair of rolls of my improved construction, and Figs. 2 to 8 are sections of the rail after successive passes through the rolls. The rolls A and B are mounted in housings and are driven in the customary way. Seven passes, numbered 1 2 3 4 5 6 7, are shown. The upper roll has at each pass a pair of reducing-grooves, *a*, for receiving the head and flange of the rail. The grooves in the upper roll are adapted to receive the flange without compressing the same, while a portion of the head and lower flange is drawn

off, as shown in Fig. 2. The rail having been passed through No. 1 is reduced, as shown, thereby enabling the same to be put through pass 2, whereby the lower flange and the head is further reduced, thereby enabling its passage through the pass 3, after which it is passed through the passes 4 and 5 successively, leaving it an angle of unequal lengths and sides. The bar is next put through pass 6, the same having been first reversed, the groove *b* in the lower roll being so formed as to nearly equalize the lengths of the legs. The bar is next passed through the pass 7, in which the groove formed in the lower roll is of exact dimensions with the horizontal bar *c*, thereby compressing the longer leg and forming a complete angle-iron, as shown in Fig. 8. By this process the rail is converted into a perfect angle-iron without lapping, folding, or plication, thereby avoiding crease or seam.

It will be seen that iron rails may be reduced by the above machine as well and effectually as those of steel.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A pair of rolls for reworking old rails and stub ends into angle-irons, the said rolls having passes of the shapes designated at 1, 2, 3, 4, 5, 6, and 7, substantially as shown and described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

AMAZIAH VAUGHAN.

Witnesses:

GEO. A. SCOTT,
JOHN T. SCOTT.