Griffin & Weeks.

Pile for Railroad Rails.

No. 42,656. Patented May 10, 1864.

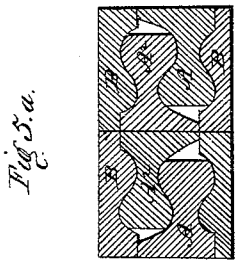


Fig. 5.a.

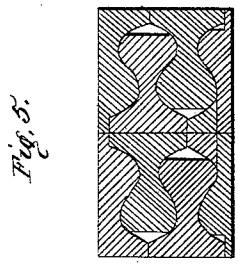


Fig. 5.

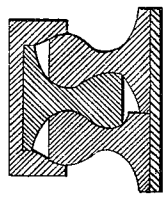


Fig. 6.a

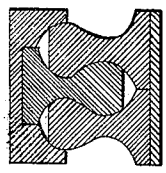


Fig. 6.

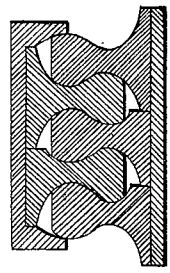


Fig. 4.a.

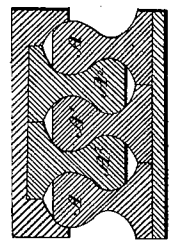


Fig. 4.

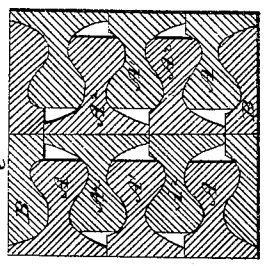


Fig. 1.a.

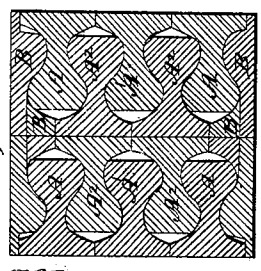


Fig. 1.

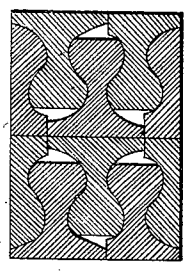


Fig. 3.a.

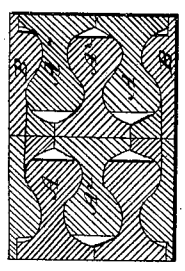


Fig. 3.

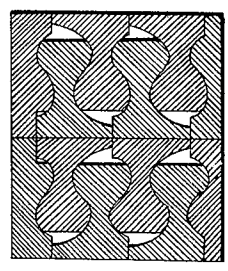


Fig. 2.a.

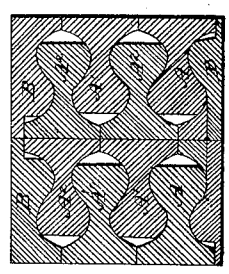


Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN GRIFFIN AND M. P. WEEKS, OF BUFFALO, NEW YORK.

IMPROVEMENT IN PILING OLD RAILROAD-RAILS.

Specification forming part of Letters Patent No. **42,656**, dated May 10, 1864.

To all whom it may concern:

Be it known that we, JOHN GRIFFIN and M. P. WEEKS, of the city of Buffalo, county of Erie, and State of New York, have invented a certain new and useful Improvement in Piling Railroad-Rails for Reworking; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon.

The nature of this invention relates, first, to so shearing off longitudinally a portion of the flanges of the old rails for reworking that they may be arranged or interlocked together in a manner to form a compact and solid pile which will admit of being rolled into new rails, or other bar or plate iron, at one heating; secondly, in the combination, with the pile of rails so sheared and interlocked, of special pieces of proper form or forms to fill out or square the pile.

Figure I represents a cross-section of a pile consisting of ten rails, A A′ A^2, and special pieces B B. In this arrangement of the rails the sides of the pile are formed by three rails, A A′ A, with their flanges vertical and in contact, and bases outward and flush. The flanges being sheared so that the width of the "base" only exceeds the width of the head by the thickness of the "web," the space between two adjacent rails, A A′, will be of such size and shape as to be filled by a third rail, A^2, interlocking therewith. The interlocking rails A^2 are placed base to base, so that the width of the pile is equal to twice the depth of the rails plus twice the depth of the base or flange. The special pieces B are rolled in one, two, or three parts, with one side flat and the other of such form as to fit into and fill the curved surface formed by the sides of the bottom and top rails, A, of the pile, so that the pile is evened or squared up in proper form for passage through the forming-rollers. This pile is compact and solid without interstices, so that in its first passage between the forming-rollers, and while it is at the proper welding-temperature and before it has time to cool, a perfect and complete welding takes place between all of the different rails forming the pile, so that the new rail may be formed complete and perfect without the necessity of reheating. The flanges of a rail are always rounded off, so that the flanges of two rails placed in contact without shearing would only slightly touch each other, and consequently would allow the cold air to enter between them, which, on account of the comparatively small quantity of metal at that point, cools them before they can be passed through the forming-rollers, thus preventing a perfect weld and causing the necessity of reheating. By shearing the flanges according to our improvement this difficulty is entirely overcome, since the shearing cuts off the rounded edge of the flange and gives a much greater and more perfect bearing to the flanges in contact.

Fig. II represents a pile formed of eight rails sheared, arranged, and interlocked as in Fig. I, with a change in the form of the top special piece, as represented.

Fig. III represents a pile formed of six rails sheared, arranged, and interlocked as in Fig. I, the special pieces, being the same as in Fig. I.

Fig. IV represents a pile consisting of five rails, the first course of which is formed by three rails standing upon their bases, and the second course of two rails filling the spaces between the rails of the first course and interlocking therewith. The lower special piece is simply a flat bar of proper width, the upper one having one side flat and the other of proper form to fit the top of the pile.

Fig. V represents a pile formed of four rails arranged and interlocked as in Fig. I, the lower special piece being the same as in Fig. I, and the upper the same as in Fig. II.

Fig. VI represents a pile consisting of three rails arranged as in Fig. IV, with special pieces of the same form.

Fig. I^a is a pile arranged the same and consisting of the same number of rails as Fig. I, except that instead of shearing an equal quantity from each flange of the rail, a quantity equal to that sheared from both flanges is sheared from one, which allows the rails to interlock and form a solid and compact pile, the same as in Fig. I.

Figs. II^a, III^a, IV^a, V^a, VI^a represent piles arranged the same and consisting of the same

number of rails as Figs. II, III, IV, V, VI, except that, as described for Fig. I[a], one flange only is sheared.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. Forming a pile or fagot of rails whose flange or flanges have previously been sheared off, substantially as described, for the purpose set forth.

2. The combination, with a pile of rails so sheared and interlocked, of extra or special pieces of proper form or forms to fill out or square the pile, substantially as set forth.

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