

J. BARKER.
Piles or Fagots.

No. 142,666.

Patented September 9, 1873.

Fig. 1.

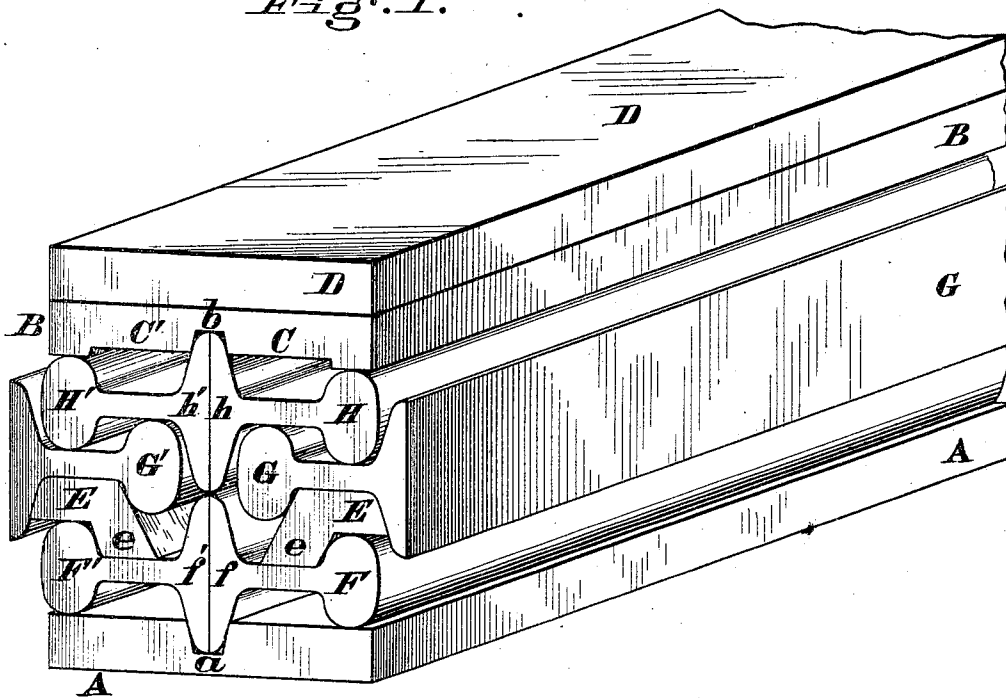


Fig. 2.

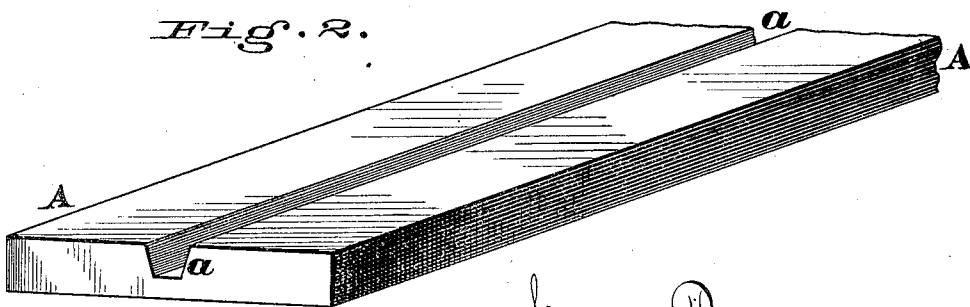
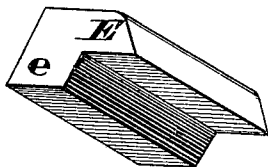


Fig. 3.



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JOHN BARKER, OF COVINGTON, KENTUCKY.

IMPROVEMENT IN PILES OR FAGOTS.

Specification forming part of Letters Patent No. 142,666, dated September 9, 1873; application filed July 25, 1873.

To all whom it may concern:

Be it known that I, JOHN BARKER, of Covington, Kenton county, Kentucky, have invented a new and useful Pile for Railroad-Rails, of which the following is a specification:

My invention consists in constructing a pile or fagot of cut or broken rails and other fragments in such a manner as to effectually prevent spreading during the subsequent heating and rolling operations. This pile or fagot consists, essentially, of a base-slab, a head-slab, a cap-slab, and a number of locking-bars, between which the fragments of old rails are interposed before being placed in the furnace.

The aforesaid base-slab is manufactured, by previous fagoting and rolling, from old and useless rails, and is provided with a longitudinal groove or channel, which is adapted to receive the bases of two rails' fragments when the fagot is built. The head-slab may be composed exclusively of "muck-iron" or other crude wrought-iron, and, like the base-slab, it is provided with a longitudinal groove or channel, and for a similar purpose. This slab rests upon the upper rails of the fagot, and is covered by the cap-slab, which is simply a flat ungrooved plate, preferably manufactured out of old and new wrought-iron, such as old and new rail fragments worked together. The locking-bars which are employed in conjunction with these three separate slabs are shaped so as to be inserted between the rails in such a manner as to assist in maintaining the different members of the pile in a proper position during the heating and rolling operations, as will be hereinafter more fully explained.

Figure 1 is a perspective view of my improved pile or fagot. Fig. 2 is a perspective view of the base-slab detached from the pile, and Fig. 3 is a perspective view of one of the locking bars or blocks.

The base-slab A consists of a flat plate of iron, which may be manufactured, in whole or part, from old rails, and is provided on its upper side with a longitudinal groove, *a*, that occupies the mid-width of said slab. This slab may be of any suitable length, width, and thickness, and the groove or channel therein must be large enough to retain the bases of two contiguous rails, as clearly shown in Fig.

1. The head-slab B is almost identical in shape with the base A, being furnished on its under side with a longitudinal groove, *b*, that is similar in form to the one, *a*, just described. As this slab is composed of muck or other cheap iron, it is recessed on its under side at C C', so as not to introduce too much inferior metal into the new rail, while, at the same time, it assists in maintaining the proper shape of the pile. Resting upon this head-slab is a cap, D, which is simply a flat ungrooved plate or slab, composed of fragments of new and old rails rolled together. The locking bars or blocks are substantially of the shape represented more fully in Fig. 3, and, by referring to said illustration, it will be seen that these bars consist of a horizontal member, E, which is united to a sloping or inclined one, *e*. These members E *e* of the locking block or bar may be worked up from old rails, and are quite short in comparison with the slabs. These locking-blocks, being inserted near the ends of the fagot, merely afford room for the middle of the pile to expand or contract in the act of heating, without displacing the component members of the fagot, which is thus enabled to retain its proper shape in the heating-furnace.

Having thus explained the separable members of the pile, I will now describe the manner of forming a fagot with them. The slab A is placed in a horizontal position, with its grooved side up, in order that the first course of rails F F' may be applied thereto. These rails are laid upon their sides, so as to bring the flat portion of their bases *f f'* against each other, and at the same time to allow the lower edges thereof to enter the longitudinal groove *a*. The locking-blocks are now applied to the pile in such a manner as to cause their horizontal members E to rest upon the heads of the rails F F', while the portions *e* of said blocks are supported by the webs of the aforesaid rails. Two other rails, G G', are now added to the pile, the webs of the pair last applied resting upon the horizontal members E of the locking-bars, and the heads of said rails occupying the spaces between the bases *f f'* and the inclined portion *e* of said bars. After this has been accomplished another pair of rails, H H', is applied to the pile in such a way as to cause the

edges of their bases $h h'$ to rest upon the upper edges of the bases $f f'$ of the lowermost pair of rails. The heads of the rails last applied are supported upon the webs of the intermediate set $G G'$. The head-slab B is now added to the pile, so as to cause the upper edges of the bases $h h'$ of the top rails $H H'$ to enter the longitudinal groove b of said head-slab, after which the cap D is laid upon the head-slab. The pile is now complete, and the fagot is then inserted in the furnace in the ordinary way.

Owing to the peculiar manner in which my slabs and locking-bars are employed in constructing the pile, it is built up so securely that the various members thereof are not liable to lose their respective situations or to be detached in the heating and rolling operations, and the result is that the new rail is entirely free from seams produced by the "spreading" of the component parts under the rolls.

The new rail, being thus produced free from seams and flaws of any kind, completely obviates the necessity of any subsequent rerolling, and consequently enables the production of a superior article at a material reduction in the cost of manufacture.

My method of fagoting allows the use of a greater number of old rails than has heretofore been done, which also produces a corresponding reduction in the cost.

I have selected to illustrate my invention the form and arrangement of lock-blocks and rail fragments preferably employed by me, but reserve the right to vary the arrangement of the parts, or to work in a steel cap, or make such other changes as may from time to time be desired.

I claim as my invention—

The pile for railroad-rails consisting of the longitudinally-grooved base-slab $A a$, locking-blocks $E e$, and muck-iron head-slab B , with its longitudinal groove b and recesses $C C$, when used in connection with the cap D and the rail fragments $F F' G G' H H'$, the latter being arranged, with reference to one another, in the manner herein illustrated and described.

In testimony of which invention I hereunto set my hand.

JOHN BARKER.

Attest:

GEO. H. KNIGHT,
H. SCHOONMAKER.