

L. SEIPLE & M. G. BROOKINS.
MACHINE FOR CUTTING BAR IRON.

No. 555,404.

Patented Feb. 25, 1896.

Fig. 1.

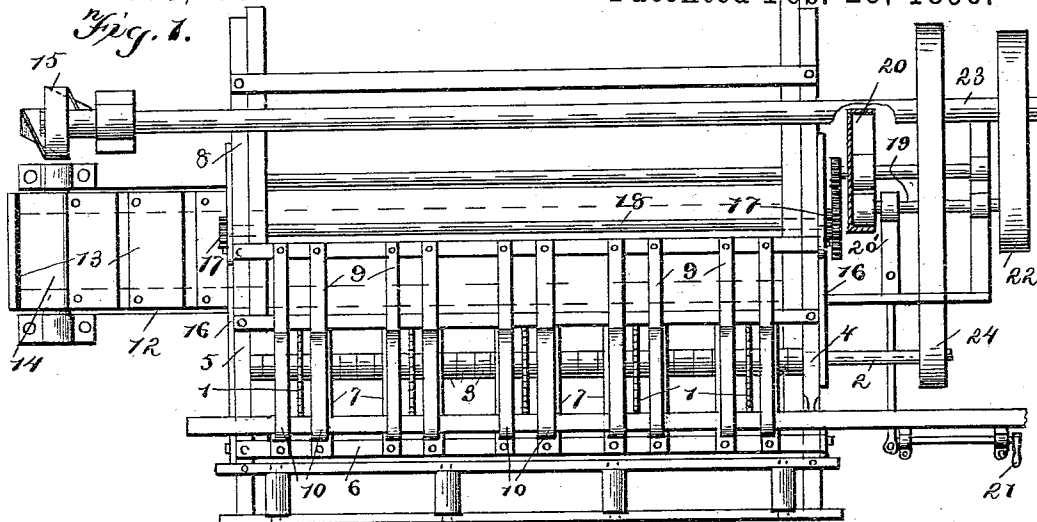
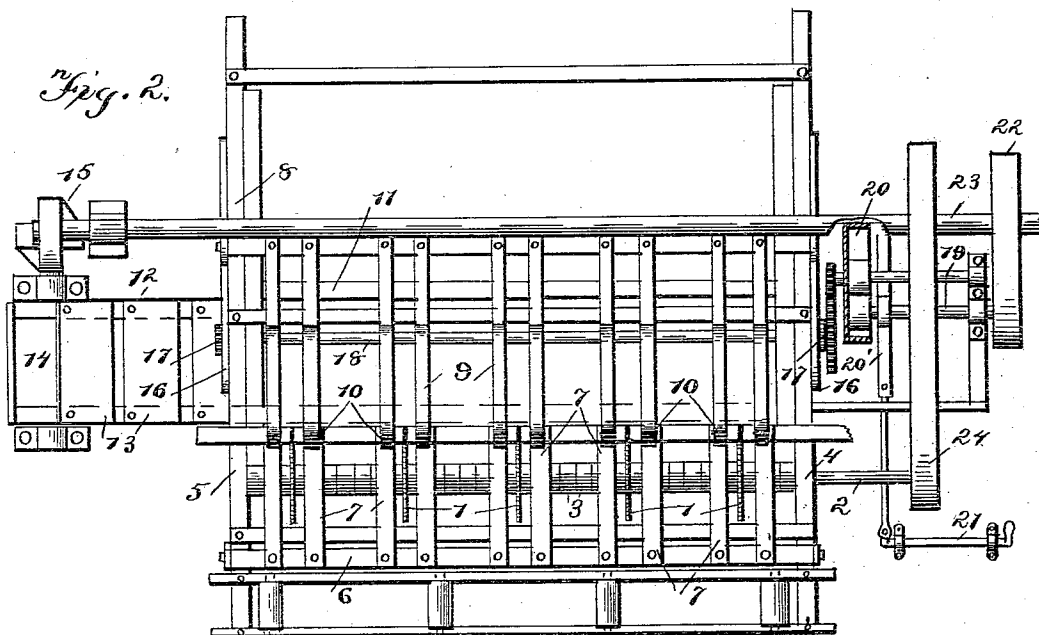


Fig. 2.



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(No Model.)

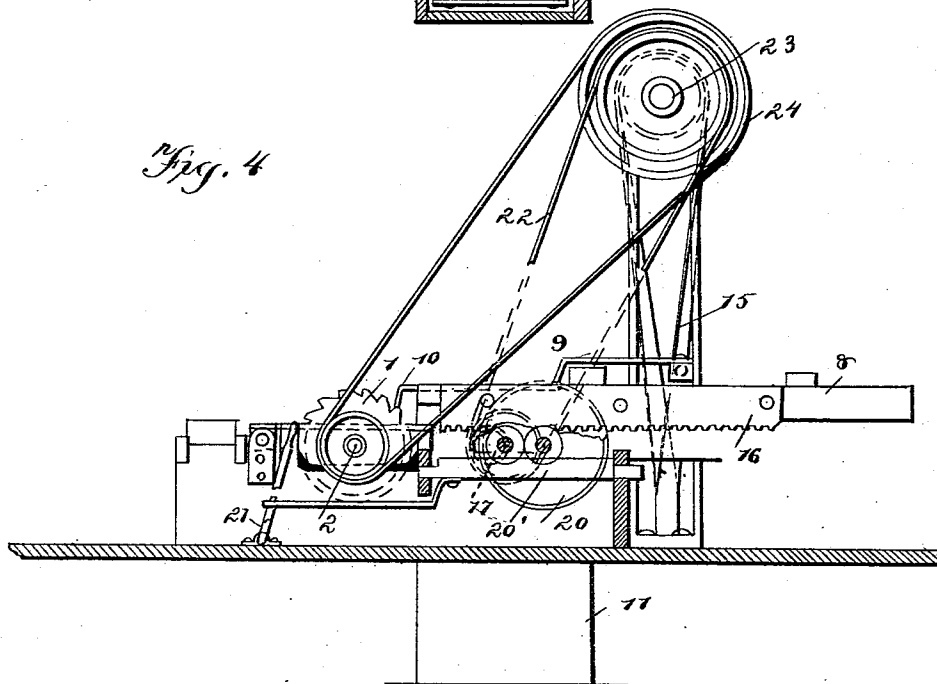
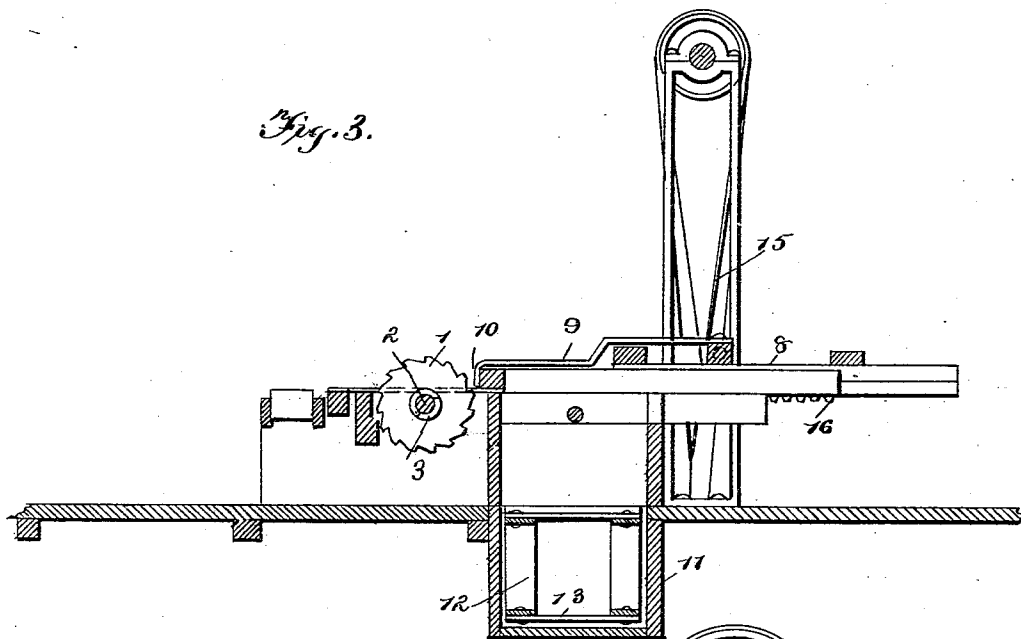
3 Sheets—Sheet 2.

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Fig. 5.

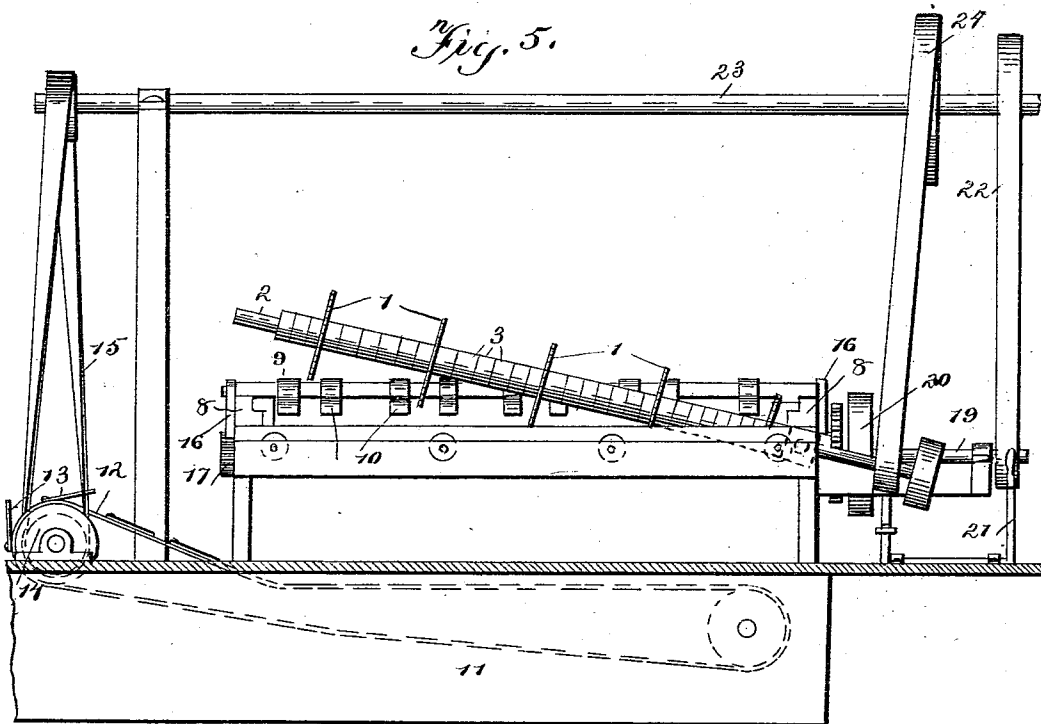
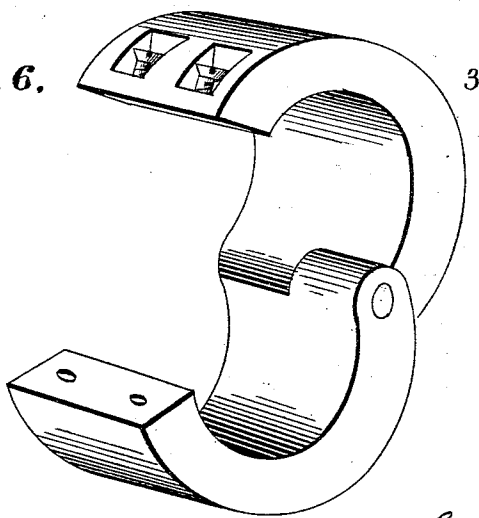


Fig. 6.



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UNITED STATES PATENT OFFICE.

LINCOLN SEIPLE AND MATTHEW G. BROOKINS, OF FINDLAY, OHIO.

MACHINE FOR CUTTING BAR-IRON.

SPECIFICATION forming part of Letters Patent No. 555,404, dated February 25, 1896.

Application filed July 2, 1895. Serial No. 554,699. (No model.)

To all whom it may concern:

Be it known that we, LINCOLN SEIPLE and MATTHEW G. BROOKINS, of Findlay, in the county of Hancock and State of Ohio, have invented certain new and useful Improvements in Machines for Cutting Bar-Iron; and we 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The invention has reference to improvements in machines for cutting bar-iron, the object being to arrange the machine in which the muck-bars will be fed to a series of rapidly-revolving saws for cutting them into the desired lengths, and from the saws discharging them into a cooling-tank, from which they are removed by an endless carrier and discharged to one side of the machine.

The invention consists of the novel features of construction hereinafter fully described and claimed and illustrated by the accompanying drawings, in which—

Figure 1 is a plan view of the machine, showing the position of parts when the iron bar is fed to the saws. Fig. 2 is a similar view showing the bar-feeding mechanism moved inward to discharge the cut sections of the bar in the tank. Fig. 3 is a vertical cross-sectional view. Fig. 4 is an end view, shown partly in section. Fig. 5 is a front elevation showing the main shaft raised at one end for removing or adjusting the saws. Fig. 6 is a detail view of one of the saw-locking collars.

The saws 1 are properly spaced on the main shaft 2 by clamping-collars 3. Each ring or collar is formed in two sections, which at one side are hinged together and which are adapted to be secured together at the other side around the shaft, as indicated in Fig. 6. One end of shaft 2 is journaled in the pivoted or revoluble bearing 4, while the other end of the said shaft is journaled in the removable bearing 5, so that when it is desired to adjust or remove the saws upon the shaft the bearing 5 may be taken out and the shaft raised, as indicated in Fig. 5, so as to give free access to the saws, the shaft being capable of this adjustment through the medium of the piv-

oted bearing. A removable bar 6 is extended longitudinally with the saw-carrying shaft and slightly removed therefrom, and secured to this bar are the plates or cross-supports 7, between which the saws project. These plates or cross-supports are for the purpose of sustaining the weight of the bar of iron as it is fed to the saws and from them onward to the cooling-tank presently to be mentioned. The bar 6 is revoluble along with the supports secured thereto, so as to give free access to the saws in adjusting them in the manner before described.

For moving the bar of iron to the saws and the cut sections therefrom we provide the laterally-movable frame 8, carrying the fingers 9, having the downwardly-turned ends 10. When this transverse frame is in the position indicated in Fig. 1, the said fingers are in engagement with the bar of iron, and the forward movement of the frame draws the bar to the rapidly-revolving saws, which cut the same in the desired lengths, and a continued forward movement of the said frame into the position shown in Fig. 2 causes the cut pieces to be discharged into a cooling-tank 11. An endless carrier 12 moves longitudinally through the bottom of this cooling-tank and receives the cut pieces and carries them out after being cooled and discharges the same to one side of the machine.

The conveyer is geared to move slowly, and the same consists of two or more endless iron belts to which the plates 13 are secured, the belts moving around suitable rollers 14, one of which receives the actuating power through belt 15, leading downward from the power-shaft.

For effecting the back-and-forth movement of the feeding-frame the same is provided upon its ends with the racks 16, which are engaged by pinions 17 on the longitudinal shaft 18. This shaft 18 is rotated through the medium of suitable gearing by the short shaft 19 carrying the frictional-clutch mechanism 20, whereby the same may be revolved in either direction, and thus cause the feeding-frame to be moved back or forth, as desired. The reversing-head of the clutch is moved by the longitudinally-adjustable bar 20', connected to one end of the hand-lever 21. The short shaft to which the head is secured is

rotated by a belt 22 from the power-shaft 23, while the saw-shaft receives its power through the medium of the belt 24 passing around the said power-shaft.

- 5 By means of the arrangement here shown and described bars of muck-iron, which are from fifteen to thirty feet in length, may be cut into the lengths desired, as the saws are readily adjustable, as before described, upon
10 the shaft 2. The plates 7 and the fingers carried by the transversely-movable frame serve to clamp the bar tightly after or while being sawed and prevent them from flying or being thrown by the saws. With the movable
15 frame extended forward, as in Fig. 1, the bar to be cut may be moved longitudinally beneath fingers 10 to proper position, or it may be moved laterally from the roller-table to position, the fingers in the latter event being
20 raised by any suitable means (not shown) to permit the passage of the bar. As soon as the transversely-movable frame has been adjusted sufficiently far to drop the pieces of iron into the tank, the movement of the same
25 may be reversed by the mechanism above described, when the frame will be again in position for carrying a new bar across the saws with an entire repetition of the operation, as will be readily understood.
30 This machine is designed to save much of

the expense and labor incident to the cutting of muck-iron bars, which in the usual way requires the labor of a number of men, while at the same time the cutting operation is slow and expensive.

The machine described above obviates much of the expense, as well as securing a much more rapid operation.

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

The combination of the saws, the saw-shaft and cooler arranged in parallel lines, the slide-way extended across the cooler and to a point adjacent the saw-shaft, the frame movable on the slideway, and the fingers projected from the frame and having depending ends for engaging the bars to be cut and drawing them to the saws and cooler, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

LINCOLN SEIPLE.

MATTHEW G. BROOKINS.

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