(125.)

J. CORNS.

Machine for Straightening Harvester Finger Bars.

No. 122,815. Patented Jan. 16, 1872.

Fig. 1.

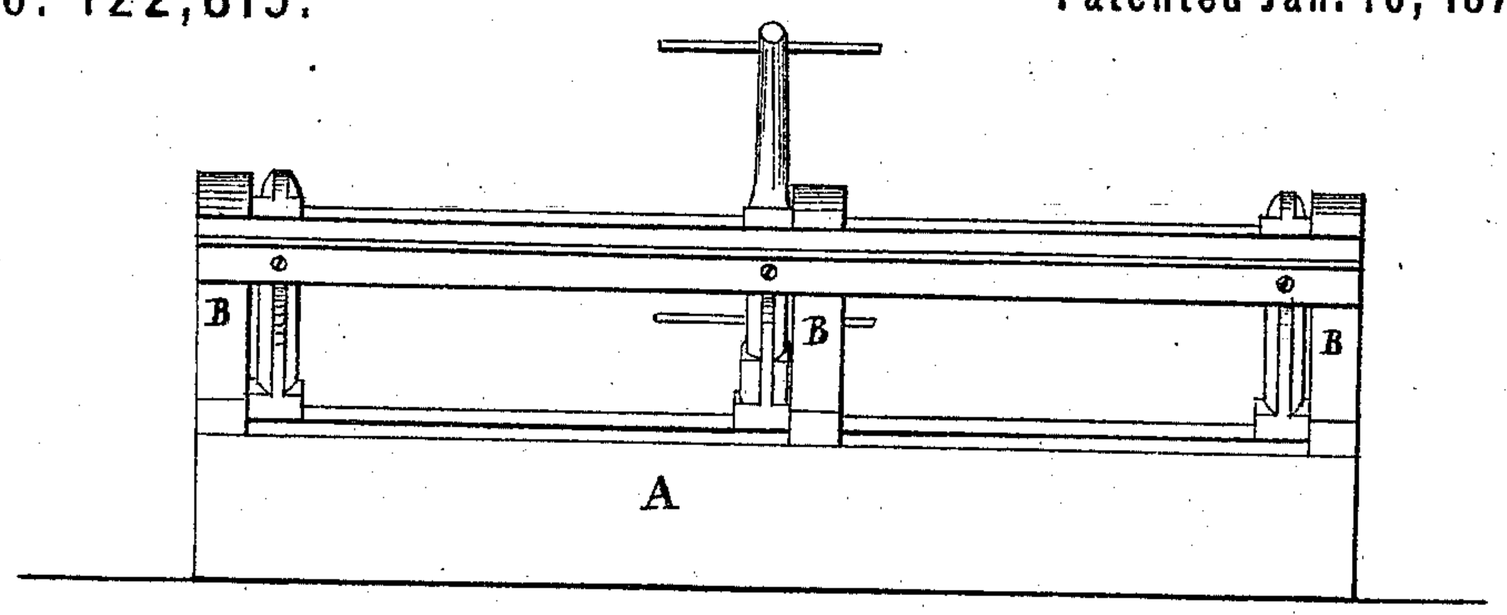


Fig. 2.

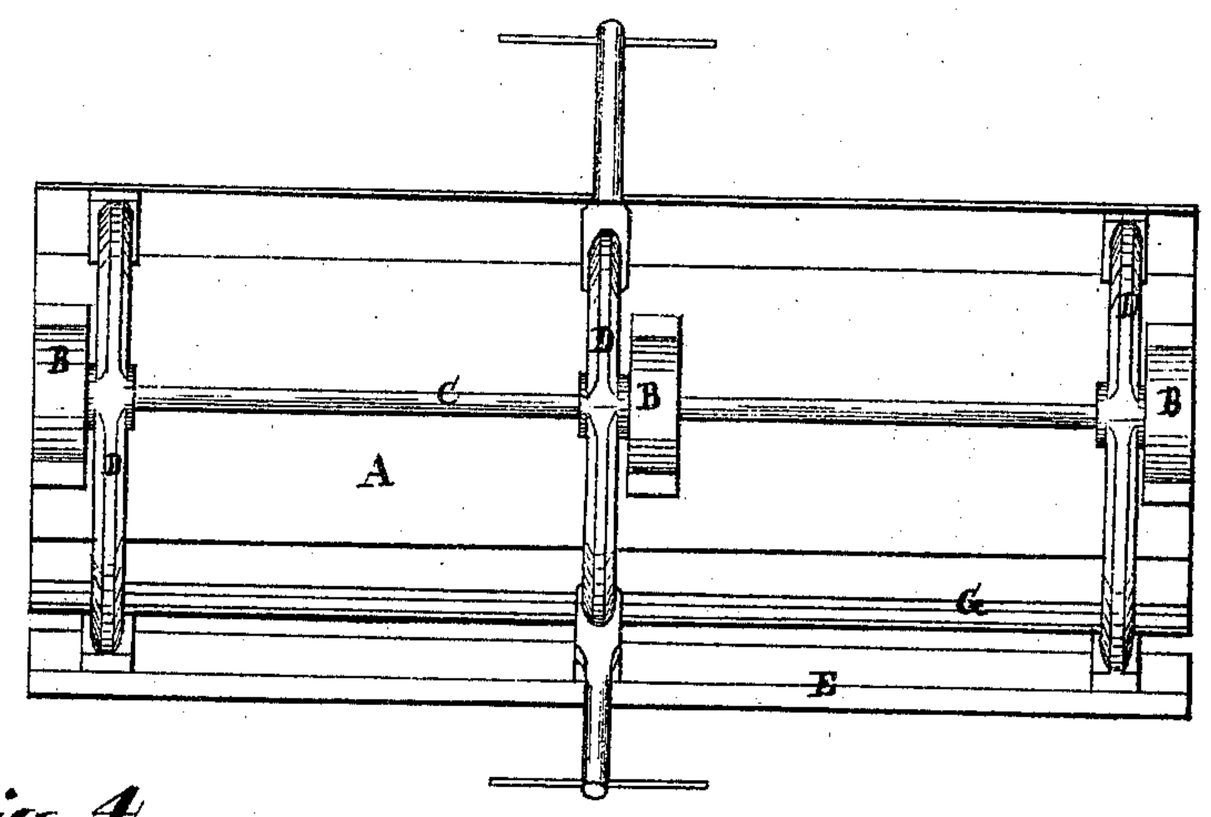


Fig. 4.

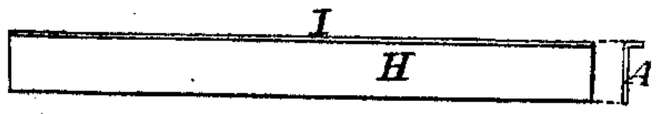
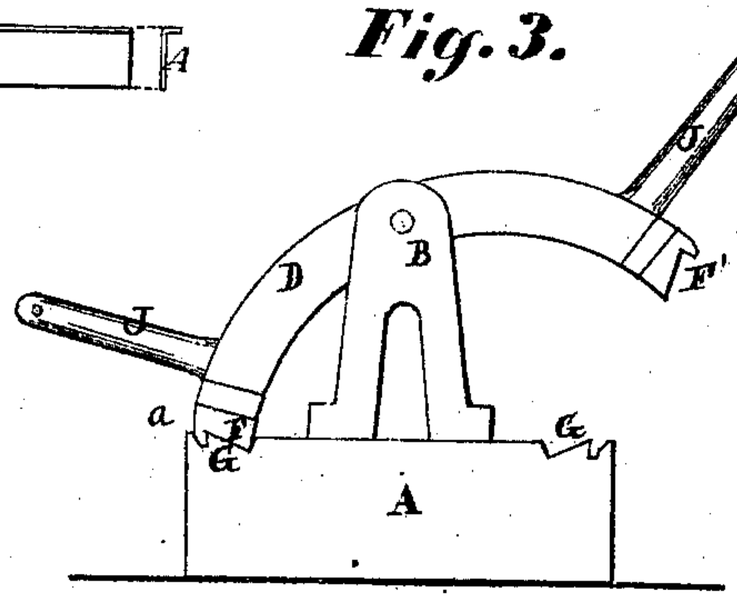


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH CORNS, OF AKRON, OHIO.

IMPROVEMENT IN MACHINES FOR STRAIGHTENING FINGER-BARS.

Specification forming part of Letters Patent No. 122,815, dated January 16, 1872.

To all whom it may concern:

Be it known that I, JOSEPH CORNS, of Akron, in the county of Summit and State of Ohio, have invented a new and useful mode of Straightening Harvester Finger-Bars, of which the following is a description, reference being had to the accompanying drawing making part of this specification.

SPECIFICATION.

Figure 1 is a side view of the machine. Fig. 2 is a plan view. Fig. 3 is an end view. Fig. 4 is a view of a finger-bar.

Like letters of reference refer to like parts in the different views.

The nature of this invention relates to a machine for straightening harvester finger-bars; and the object thereof is to straighten said bars flatwise and edgewise at one operation by means of a vibratory swage or dies, constructed and operated in the manner substantially as follows:

In the drawing, Fig. 1, A represents a bed-plate, on which are erected the standards B. In said standards is journaled a shaft, C, to which is secured the arms D. To each of the extreme ends of said arms is attached a die or swage, E, of the length and width of the finger-bar, and having the form or shape of the bar, as shown at F in the end view, Fig. 3. Lengthwise on each edge of the bed-plate is a corresponding form, G, of the shape and form of the finger-bar, and which forms the lower die or swage. The upper and lower die, when united, are shown at *a*, Fig. 3, in which it will be seen that they are correspondingly related to each other as male and female dies. The finger-bar referred to consists of a flat bar, H, Fig. 4, having a flange, I, turned on one edge, as shown. Said bars are rolled out, and on leaving the rollers they are more or less warped and twisted, and therefore require to be straightened before they can be used. This is usually done by first straightening the plate, and after which the flange. This is a matter of much labor and trouble, for the reason that when the plate or flat part of the bar is made straight, then on straightening the flange the plate thereby becomes warped or twisted by the hammering of the flange. The plate, therefore, requires to be again straightened, and in the process of restraightening the plate the flange becomes twisted. Hence much time and labor is required to straighten the bars, as each part, when straightened separately, mutually crook or twist each other out of line. To avoid this trouble and labor is the purpose of this machine, and which is operated as follows:

The bar is laid upon the lower die, and which, having the same configuration, will fit therein, or so much so as its warped or twisted condition will admit of. The upper die is now made to fall upon the bar by means of the handles J, whereby a vibratory action is given to the arms. The die F, as it falls upon the bar, strikes it upon the plate or broad flat side and at the same time upon the flange, thereby hammering the plate or the bar and the flange both at once and forcing it into the lower die, thereby straightening both the flat part of the bar and the flange at once. By this means the finger-bar is easily and quickly made perfectly straight, so that no subsequent hammering is needed to fit it for use. By this machine two bars can be straightened at once, one upon each side of the bed-plate, so that when the upper die F′ is ascending the upper corresponding die F descends and strikes the bar on that side, the two dies counterbalancing each other; hence but little labor is required to vibrate the arms and alternately strike the finger-bar, one bar by the die F and the other by the die F′.

Claim.

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

The herein-described machine for straightening harvester finger-bars, consisting of the vibratory arms D having thereto attached the dies or swages F F′, as arranged to operate in relation to the dies or swages G, substantially in the manner as described, and for the purpose set forth.

JOSEPH CORNS.

Witnesses:
J. H. BURRIDGE,
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