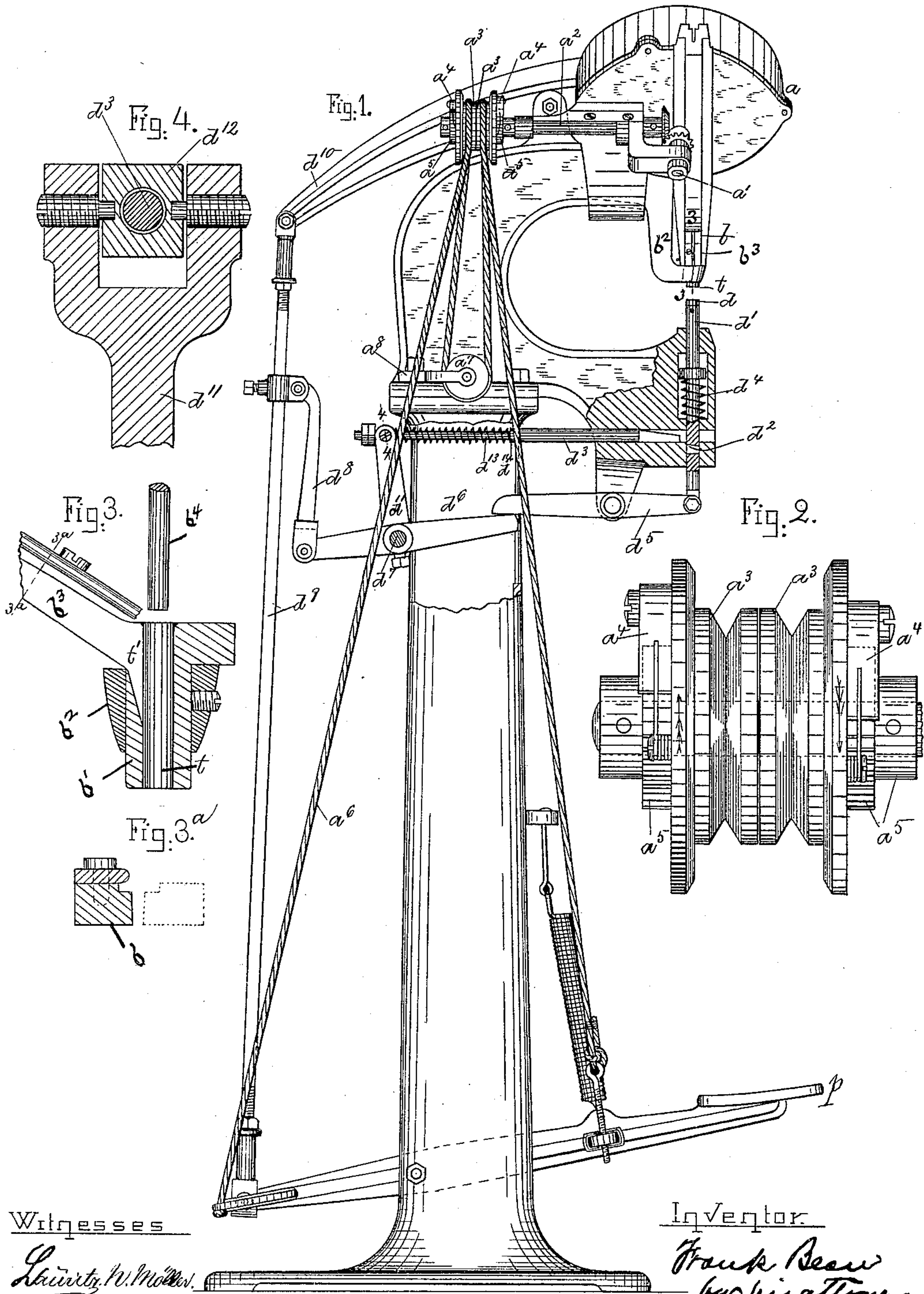


(No Model.)

F. BEAN.  
EYELETING MACHINE.

No. 451,361.

Patented Apr. 28, 1891.



Witnesses

*Laurey W. Miller.*  
*John R. Brown.*

Inventor

*Frank Bean*  
*by his attorney*  
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# UNITED STATES PATENT OFFICE.

FRANK BEAN, OF MEDFORD, ASSIGNOR TO THE STANDARD RIVET COMPANY, OF BOSTON, MASSACHUSETTS.

## EYELETING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 451,361, dated April 28, 1891.

Application filed April 16, 1890. Serial No. 348,258. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK BEAN, of Medford, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Setting-Machines, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of a machine embodying my invention. Fig. 2 is a view of a portion of the brush-rotating attachment detached for greater clearness. Fig. 3 is a sectional view enlarged on line 3 3 of Fig. 1, showing a portion of the chute, nail-throat, and a portion of the driver. Fig. 3<sup>a</sup> is a sectional view on line 3<sup>a</sup> 3<sup>a</sup> of Fig. 3. Fig. 4 is a sectional view on line 4 4 of Fig. 1.

My invention relates to machines for driving and setting metallic fastenings, the object of my invention being to produce an improved machine for this purpose.

One feature of my invention consists in the combination of the brush and a pedal or its equivalent in such wise that the brush is rotated whenever the machine is in operation. Another feature of my invention is the combination of the driver and anvil-bar by a yielding anvil-locking device hereinafter set forth.

In the drawings, *a* is the usual inclined reservoir provided with a rotary brush.

*a'* is the brush spindle or carrier.

*a*<sup>2</sup> is the shaft through which the brush spindle or support is moved to rotate the brush, and *p* is the usual pedal.

In order to get a constant and certain supply of fastenings in the chute *b*, I have found it highly advantageous to keep the brush moving when the machine is in operation, and in order to do this in machines operated by a pedal or the like I connect the brush spindle or support with the pedal in such wise that the brush is rotated with each complete movement of the pedal—that is, when the pedal is depressed the brush is partially rotated, and when the pedal returns to its highest position the complete rotation of the brush is effected. The advantage of so doing is that the fastenings are frequently swept from the outlet into the chute, where they tend to

lodge and clog, owing to the inclination of the bottom of the reservoir. The best means known to me for connecting the pedal and brush are the following: Shaft *a*<sup>2</sup> is provided with loose pulleys *a*<sup>3</sup> *a*<sup>3</sup>, each carrying a pawl *a*<sup>4</sup>. Pawls *a*<sup>4</sup> engage ratchets *a*<sup>5</sup> fast on shaft *a*<sup>2</sup>. A belt *a*<sup>6</sup> is fast at each end to pedal *p*, and passes thence over pulleys *a*<sup>3</sup> *a*<sup>3</sup> and a pulley *a*<sup>7</sup>, secured in a suitable bracket *a*<sup>8</sup>, in this case mounted on the frame of the machine. When the pedal is depressed, the pulley is coupled to the shaft *a*<sup>2</sup> through its pawl and ratchet, and when the pedal rises this pulley is uncoupled from the shaft and the other pulley coupled to the shaft, so that the brush is rotated not only when the pedal is depressed, but also when it is raised.

It is necessary to lock the anvil *d* when the fastening is driven, the anvil rising and falling to serve as a presser-foot. The anvil-bar *d'* is mortised at *d*<sup>2</sup> to receive a locking-bar *d*<sup>3</sup>, which is shot forward into the mortise to lock the anvil while the fastening is being clinched, and is withdrawn when the driver rises to release the work. Anvil-bar *d'* is provided with a spring *d*<sup>4</sup>, which tends to keep the anvil-bar in its highest position, and the anvil-bar is fulcrumed to a lever *d*<sup>5</sup>, which is engaged by a lever *d*<sup>6</sup>, fulcrumed at *d*<sup>7</sup>, and connected to a rod *d*<sup>8</sup>, which is secured to the rod *d*<sup>9</sup>, connecting the driver-lever *d*<sup>10</sup> and pedal *p*. Lever *d*<sup>6</sup> has a forked arm *d*<sup>11</sup>, which receives within its fork a block *d*<sup>12</sup>, through which passes the locking-bar *d*<sup>3</sup>, the block *d*<sup>12</sup> serving as an abutment for a spring *d*<sup>13</sup>, interposed between the block *d*<sup>12</sup> and an abutment *d*<sup>14</sup> on the locking-bar. When the treadle is depressed to bring down the driver, the free end of lever *d*<sup>6</sup> moves away from the inner end of the lever *d*<sup>5</sup>, and spring *d*<sup>4</sup> then raises the anvil-bar, bringing mortise *d*<sup>2</sup> into the path of the locking-bar, which is shot forward by the movement of arm *d*<sup>11</sup> into the mortise. The mortise has an inclined wall, and the forward end of the locking-bar is beveled to adapt the machine for work varying in thickness, and the connections between the locking-bar and lever *d*<sup>11</sup> should be a yielding connection to prevent the locking-bar from being shot forward positively and

so endangering the machine, as will be clear to all skilled in the art.

The throat  $b'$  (shown in the drawings) is removable, being secured in a bracket  $b^2$  on  
5 the head of the machine and to the chute  $b$ , and is therefore formed with a chute-section  $b^3$ . The upper end of the throat is best flared slightly, as shown. The driver is indicated by  $b^4$ . The throat  $t$  is an adjustable throat  
10 having an enlarged passage  $t'$ . These two features of my invention are set forth and described in my application, Serial No. 348,257, of even date herewith, and are not hereby abandoned, but are claimed in said applica-  
15 tion.

What I claim is—

1. In a setting-machine, the combination of the rotary brush and pedal with shaft  $a^2$ , pul-

leys  $a^3$   $a^3$ , pawls  $a^4$   $a^4$ , ratchets  $a^5$   $a^5$ , and belt  $a^6$  to move the brush whenever the treadle is  
20 moved, substantially as and for the purpose set forth.

2. In a setting-machine, the combination of a reciprocating anvil and a locking-bar there-  
for with levers  $d^5$   $d^6$ , connecting-rod  $d^8$  and 25 driver-lever rod  $d^9$ , and spring  $d^{13}$ , the lever  $d^6$  having an arm  $d^{11}$  connected with locking-bar  $d^3$ , and the spring  $d^{13}$  being interposed between the arm  $d^{11}$  and the locking-bar  $d^3$ ,  
all substantially as and for the purpose set 30 forth.

FRANK BEAN.

Witnesses:

FRANK D. MARCH,  
EDWARD S. BEACH.