

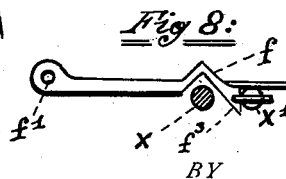
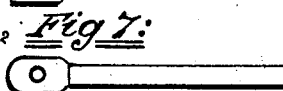
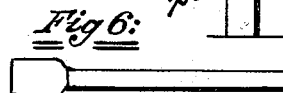
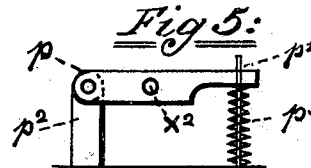
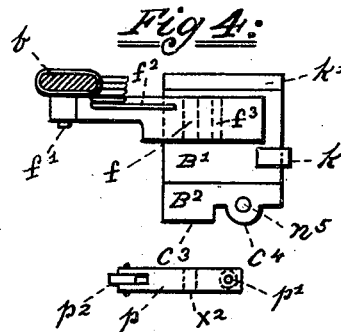
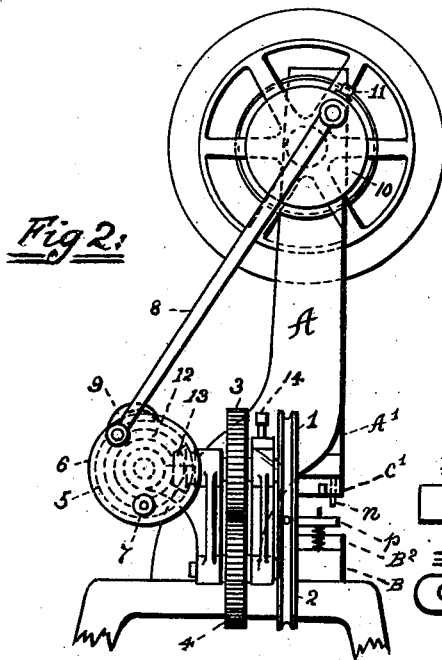
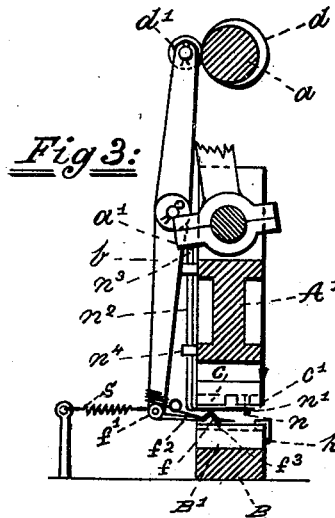
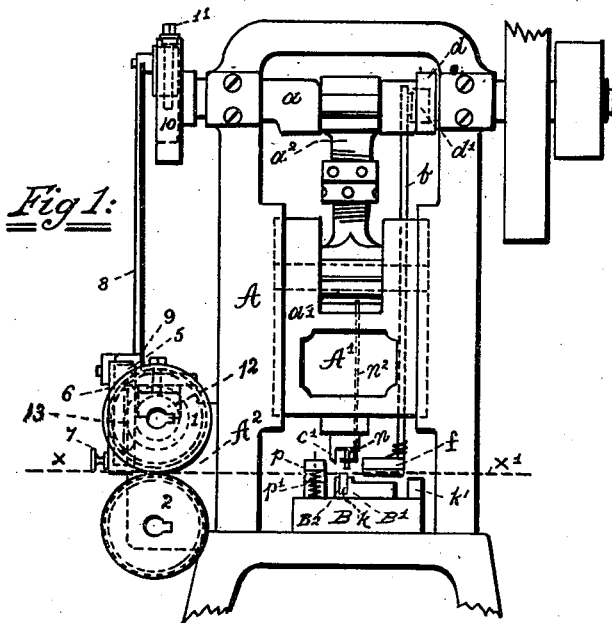
No. 648,094.

Patented Apr. 24, 1900.

R. W. BARKER.
MACHINE FOR MAKING LINGOES.

(Application filed Mar. 27, 1899.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

ROBERT W. BARKER, OF PATERSON, NEW JERSEY, ASSIGNOR TO THE
BARKER MANUFACTURING COMPANY, OF NEW JERSEY.

MACHINE FOR MAKING LINGOES.

SPECIFICATION forming part of Letters Patent No. 648,094, dated April 24, 1900.

Application filed March 27, 1899. Serial No. 710,614. (No model.)

To all whom it may concern:

Be it known that I, ROBERT W. BARKER, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Machines for Making Lingo-
5 goes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of my invention is to provide an improved machine to facilitate the manufacture of lingo-
15 goes, to do the work now requiring several persons and machines, and to economize in time, labor, and space in said manufacture. The method in vogue is to run the wire through a machine to straighten it and cut it into lengths sufficient to make two lingo-
20 goes. Another person puts these lengths in a press to flatten them in the center. They are then passed to another machine and are cut in two at the flattened portion by a die, so as to round the ends of the lingo-
25 goes. Finally they go to a punching-machine, and a hole is there punched through the flattened ends.

My machine has a feed mechanism attached and performs all the operations necessary to make the completed lingo. It feeds the wire, cuts off to length, flattens the head, punches
30 the hole, and cuts the end round and smooth.

My invention consists of a press with certain new and useful attachments in combination therewith, the peculiar construction and arrangement of the various parts and the
35 combinations thereof being hereinafter fully described, and set forth in the claims and shown in the drawings accompanying this specification and forming a part thereof.

In the drawings like letters and numerals of
40 reference indicate like parts in the different figures.

Figure 1 is a front view of my machine. Fig. 2 is a side view thereof. Fig. 3 is a detail view of the cutters, punch device, and
45 stripper. Fig. 4 is a detail of bolster and shifting device. Fig. 5 is a detail of guide device for supporting end of wire. Fig. 6 is a detail of wire cut off and flattened. Fig. 7 is a detail view of the wire with the hole punched

in the head thereof and the head rounded and
50 smoothed off; and Fig. 8 is a detail view of shifting device, showing wires in position to be cut off, flattened, and punched.

As is seen by reference to Fig. 1, the feed mechanism is secured to and at the side of
55 the body of the press A. The frame A² holds the rollers 1 and 2 of the feed mechanism, 1 being the guide-wheel for top of wire, and 2 being the guide-wheel for the bottom of the wire. The connecting gear-wheels 3 and 4 in-
60 termesh, and, together with the ratchet-wheel 6, which has a ratchet-plate 5, are driven from the crank-arm *a* of the press by means of the connecting-rod 8.

On the shaft of the gear-wheel 3 is a fixed
65 bevel-gear 13, which meshes with a similar bevel-gear 12 on the shaft of the ratchet-wheel 6, as is shown by dotted lines in Figs. 1 and 2.

A driving-plate 10 is secured on shaft *a*, and 11 is a screw for adjusting the stroke of the
70 rod 8, by which the length of the lingo is regulated. The contact of the wheels 1 and 2 is adjusted or regulated by means of the pressure-screw 14.

The ram A', the bolster-block B, and the
75 bolster B' are the same as in the ordinary press.

B² represents the raised surface of the bolster.

I provide the press with a straight cutting-
80 knife *c* and a rounded cutting-knife *c'*. The bolster has a straight edge *c³* and a round edge *c⁴* to correspond with the cutters *c* and *c'*. The press is also provided with the punch
85 *n*. I attach to the press a device for shifting the wire and also a stripping device. The shifting mechanism is operated by the lever
90 *b*, the central portion of which is pivotally secured to the framework of the press. The lever *b* is operated by the cam *d* on the shaft
95 *a*, the cam *d* coming in contact with the roller *d'* on said lever *b*. A spring S, secured to the stand of the press and the lower end of the lever *b*, keeps the roller *d'* in constant contact with the cam *d*. To the bottom of the lever
100 *b* is pivotally secured a shifting hook *f*, as indicated at *f'*, and said shifting hook *f* is pressed down in place by means of a spring

f^2 , which is attached to the lower portion of the lever b . The hook f is provided on its under side with an extended portion f^3 , as shown in Fig. 8. A vertical stripping-rod n^2 slides in clips n^4 and is provided at the bottom with a horizontal portion at right angles to the vertical rod, the end of which, n' , encircles the punch n . The stripper-rod n^2 is operated by the strap a' of the connecting-rod a^2 , as is shown in Figs. 1 and 3.

Secured to the bed-plate of the machine is the standard g^2 . A movable arm p is pivoted thereto, said arm having the hole x^2 , through which the wire is conducted to the cutters and punch. A spring p^3 surrounds the rod p' and gives a tension to the arm at its outer end, allowing the same to move in unison with the action of the cutters. The wire being fed is represented by the reference-letter x , and x' is the wire cut off, forming a lingo. The wire after being cut off is fed laterally over the surface of the bolster by means of the hook portion f of the shifting device.

Power being applied to the press in the ordinary manner, the operation of my machine is as follows: The wire is intermittently fed by the wheels 1 and 2 of a sufficient length to form a lingo, passing through the guide-hole x^2 in the guide p and onto the bolster B^2 and the supporting-block k' and under the angle part of the shifting hook f of the shifting device. The ram A' , carrying the cutters and punch, descends. The cutter c severs the wire and at the same time flattens the end on the bolster B^2 . The rotation of the crank-shaft a brings the ram A' upward, and at the same time the cam d by contact with the pivoted lever b forces the shifting device f , which carries the wire x , over the bolster to the stop k and in line with the rounded part C^4 of the bolster. The punch n and the cutter c' then descend, and the wire is simultaneously punched through the flattened portion and has its end cut off round and smooth. During the cutting and punching the shifting device recedes to its original position, the projecting part f^3 is forced over the finished lingo, which is still held by the punch, and the intermittent-feed mechanism again feeds sufficient wire to form another lingo, the above-described operation being repeated. As the lingo is apt to cling to the punch n , it is removed as follows: The stripper-rod n^2 is pressed downwardly by the motion of the strap a' , and the end n' of the stripping device which encircles the punch n forces the completed or finished lingo therefrom. It is obvious that the lingo and the stripper-rod rise with the punch until the strap a' in its descent forces the stripper-rod downwardly, releasing the lingo from the point of the punch. These operations are continued until the supply of wire is exhausted. The completed lingo may be removed from the bolster by hand.

With this description of my invention, what I claim is—

1. A machine for making lingoos, consisting of a press, in combination with an intermittent-feed mechanism, a shifting mechanism and a stripping mechanism; said press being provided with a punch and a cutting-knife, the edge of which is partly straight and partly rounded, substantially as set forth.

2. In a machine for making lingoos, a press, provided with a cutting-knife having an edge partly straight and partly rounded, and a punch in combination with an intermittent-feeding mechanism secured to the side of said press and operated from the main shaft of said press, substantially as set forth.

3. In a machine for making lingoos, a press, provided with a ram, a cutting-knife or cutting-knives, having one straight edge and one round edge in combination with an intermittent-feeding mechanism, a punch, means for shifting the wire to be cut and punched and a stripping device, substantially as set forth.

4. In a machine for making lingoos, a press, provided with a ram, a knife with a rounded edge, and a knife with a straight edge and a punch in combination with a stripping device, substantially as set forth.

5. In a machine for making lingoos, a press, provided with a ram, a knife with rounded edge, and a knife with a straight edge and a punch in combination with a stripping device, and means for feeding intermittently the material to be operated upon, substantially as set forth.

6. In a machine for making lingoos, a press, provided with a ram, a knife with a rounded edge, and a knife with a straight edge and a punch in combination with a stripping device, and means for feeding intermittently the material to be operated upon, and means for shifting the wire from the straight knife to the round knife, substantially as set forth.

7. In a machine for making lingoos, a press, provided with an intermittent-feed mechanism, a ram, knives and punch in combination with a shifting and stripping mechanism, the whole being operated from the crank-shaft of the press, substantially as set forth.

8. In a machine for making lingoos, the combination with a press having a ram, knives and punch, of an intermittent-feed mechanism located at and secured to the side of the press, and means for operating said feed mechanism from the crank-shaft of the press, substantially as set forth.

9. In a machine for making lingoos, the combination with the press, having a ram, knives and punch, of an intermittent-feed mechanism, means for guiding the wire, means for shifting the same, and a stripping device, substantially as set forth.

10. In a machine for making lingoos, a shifting device consisting of a lever, pivotally connected at the central portion thereof to the machine, a hook pivotally connected to the lower end of said lever and a spring secured also to the lower portion of said lever and

adapted to press downwardly on said shifting
hook and a cam on main shaft of the machine
adapted to come in contact with the upper
end of said lever a friction-roller provided
5 thereon in combination with said shaft and
means for operating the same, substantially
as set forth.

In testimony whereof I hereto affix my sig-
nature in presence of two witnesses.

ROBERT W. BARKER.

Witnesses:

JOHN F. KERR,
CORNELIUS PERRINS.