

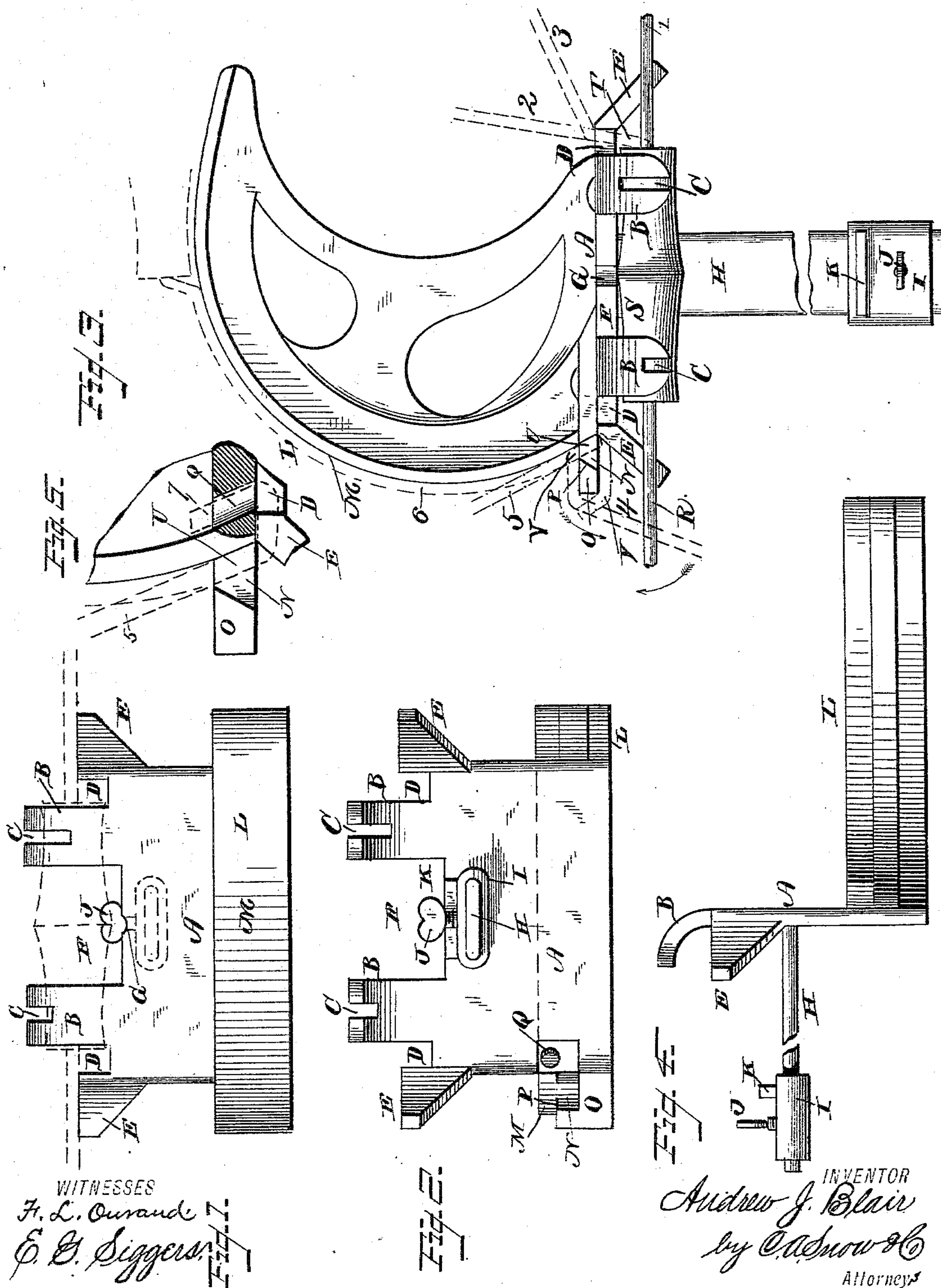
(No Model.)

A. J. BLAIR.

DEVICE FOR FORMING BAILS FOR BUCKETS.

No. 296,811.

Patented Apr. 15, 1884.



UNITED STATES PATENT OFFICE.

ANDREW JEREMIAH BLAIR, OF KNOXVILLE, TENNESSEE.

DEVICE FOR FORMING BAILS FOR BUCKETS.

SPECIFICATION forming part of Letters Patent No. 296,811, dated April 15, 1884.

Application filed July 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. BLAIR, a citizen of the Dominion of Canada, residing at Knoxville, in the county of Knox and State of Tennessee, have invented a new and useful Device for Forming Bails for Buckets, &c., of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to machines for forming bails for buckets, &c.; and its object is to provide a device possessing superior advantages in point of simplicity, inexpensiveness, and convenience and general efficiency in operation.

In the drawings, Figure 1 is a front elevation of the machine. Fig. 2 is a rear elevation of the same. Fig. 3 is a top view of the machine. Fig. 4 is an end view. Fig. 5 is a detail view illustrating the lateral flange O and adjacent parts.

Referring to the drawings, A designates the body of the machine, which consists of a vertical plate having two upwardly and rearwardly curved flanges, B B, provided with slots C C, and projecting from the top edge of said plate, recesses D D being formed in the top edge near its ends, and horizontal rearwardly-projecting supporting-flanges E E being arranged to project from the said recesses, as shown. The plate A is preferably cut away or recessed between the flanges B B, as shown at F, for purposes that will be presently described, and in the bottom of this recess is formed a guide-groove, G, from under which extends a rearward horizontal plate, H, from the face of the plate A. On this horizontal arm or plate is adapted to slide and be secured a centering-collar, I, having a set-screw, J, and provided with a vertical flange, K.

L is the former plate or arm, which is bolted or otherwise connected with the body A, and projects forwardly and horizontally from the latter and on a plane lower than the flanges B and E and recesses D. The arm L has a segmental or semicircular forming-periphery, M, at the inner terminus of which is formed a slot, N, in a lateral plate or flange, O. The sides of this slot N converge forwardly, as shown at P, and another slot, Q, is preferably formed

in the flange or plate O on a plane above the slot N, but not above the forming-periphery M.

In forming bails with this improved machine, the bail-wire R is first placed through the bail wood or handle S, and is then centered by placing the wood S on the plate H, with one end against the plate A, then adjusting the gage-collar I on the said plate H to the correct distance from the bail-wood, and then sliding the bail-wire in the groove G and through the bail-wood until its end engages the flange K on the collar I, when the bail-wood will be at exactly the center of the wire. After being thus centered, the bail-wood is placed parallel with the plate A and under the flanges B B, in which position the wire will rest at each end on the projecting flanges E E. Both ends of the wire are now pulled forward at the same time to bring them over the recesses D D and form the shoulder-bend T in the wire, the position of the latter before bending being designated by the number 1, and its position after this first bend by the number 2, dotted lines. After the first bend 2 the ends of the wire fall into the recesses D D, and are then pressed outwardly to the position shown in dotted lines 3, Fig. 3 of the drawings, to complete the shoulder-bend. The wood is now secured on the wire and the bail is removed from the machine, and its ends U are inserted in the slot N, and are bent outwardly from the device to form the point V of the ear-hook, when the pressure is continued until the wire is bent round the plate O to the position illustrated at 4, Fig. 3. The bail-wire is then adjusted to the position illustrated by dotted lines 5, Fig. 3, this adjustment being effected by simply carrying the wire toward the periphery M, and without removing its end from the slot N. With the wire in the position shown by 5, it is drawn back, without removing the hook from the slot, against the periphery M of the former, as shown by 6, to give it the proper curve.

In forming the ear-hooks for wooden buckets the slot N is not used, but the end of the wire is inserted in the slot Q, as shown by dotted lines 7, Fig. 5, and is bent around and against the periphery M to form a common

hook. By my improved device the bails can be conveniently and quickly bent by hand without much labor, and the bends of bails will be true and uniform. Should any of the 5 hooks or shoulders become twisted in being formed, they can be straightened by inserting them in the slots C and drawing them through the same.

I claim as my invention—

10 1. A bail-forming machine having a vertical plate provided with curved flanges projecting from its top edge, recesses in the said edge near each end, and end flanges extending from these recesses and projecting in the same 15 direction as the curved flanges, substantially as and for the purpose set forth.

2. A bail-forming machine embodying a vertical plate having flanges for retaining the bail-wood in position, supporting-flanges project- 20 ing at its ends to support the bail-wire, and recesses arranged between the retaining and supporting flanges, substantially as and for the purpose set forth.

25 3. A bail-forming machine comprising a main plate having the curved flanges projecting from its top edge, the recesses in its top edge, the end supporting-flanges, the guide-groove, the horizontal projecting arm or plate, and the centering-collar adjustable on the lat-

ter, substantially as and for the purpose set forth. 30

4. A bail-forming machine having a forming-arm provided with a segmental forming-periphery, and with a projecting flange or plate having a forming-slot at the terminus of this 35 periphery, substantially as and for the purpose set forth.

5. In a bail-forming machine, a projecting flange or plate having an ear-forming slot with convergent sides, as set forth. 40

6. A bail-forming machine comprising a vertical plate having rearwardly-projecting curved flanges for retaining the bail-wood in position, end supporting-flanges projecting in the same direction, recesses formed in its top 45 edge between the retaining and supporting flanges, a forwardly-projecting forming-arm having a segmentally-curved periphery, and a projecting flange or plate having ear-forming slots at the terminus of the said periphery, 50 substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ANDREW JEREMIAH BLAIR.

Witnesses:

H. C. HILLER,
GEO. R. SEATER.