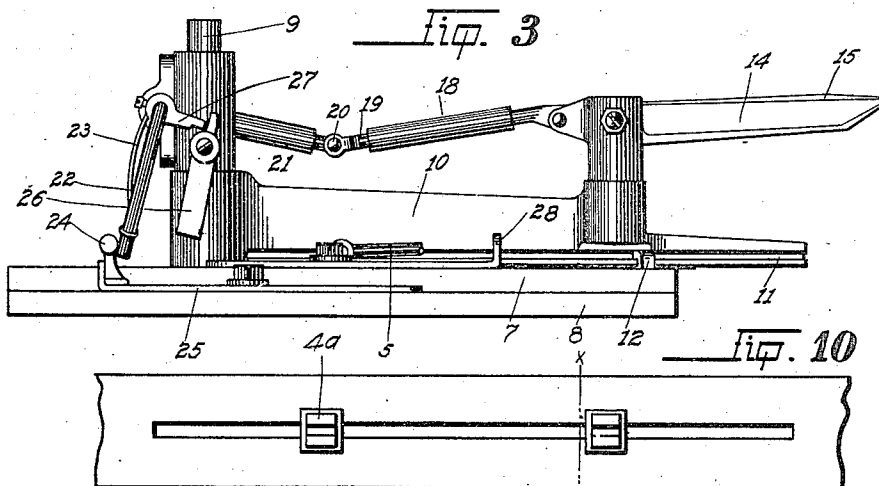
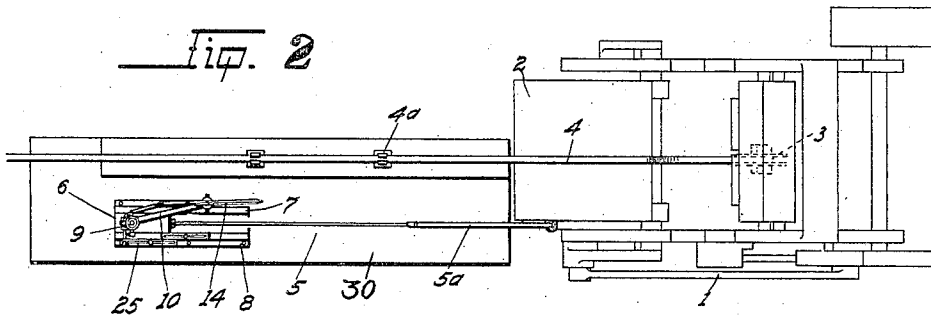
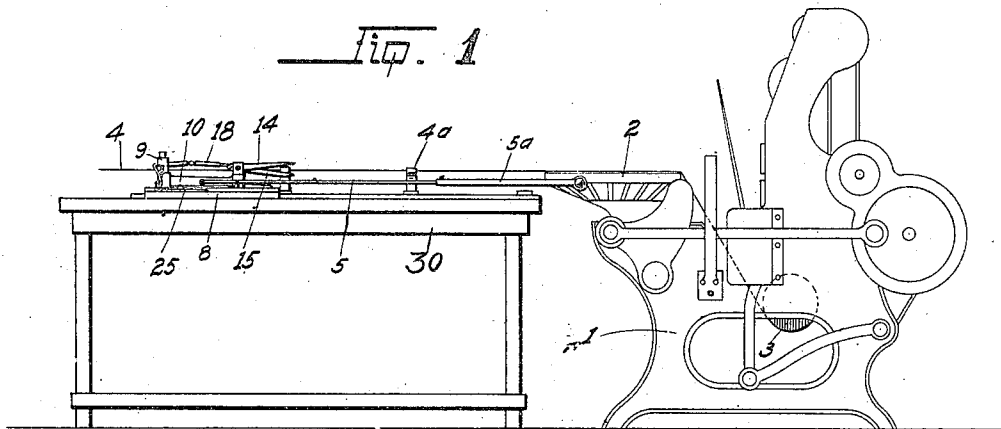


A. LIVERNOCH.
 RIBBON CUTTING ATTACHMENT FOR PRINTING PRESSES.
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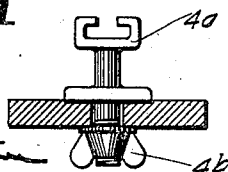
948,632.

Patented Feb. 8, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4

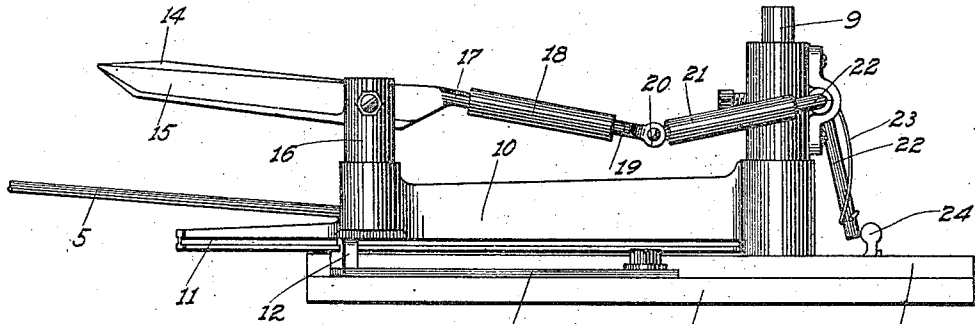


Fig. 5

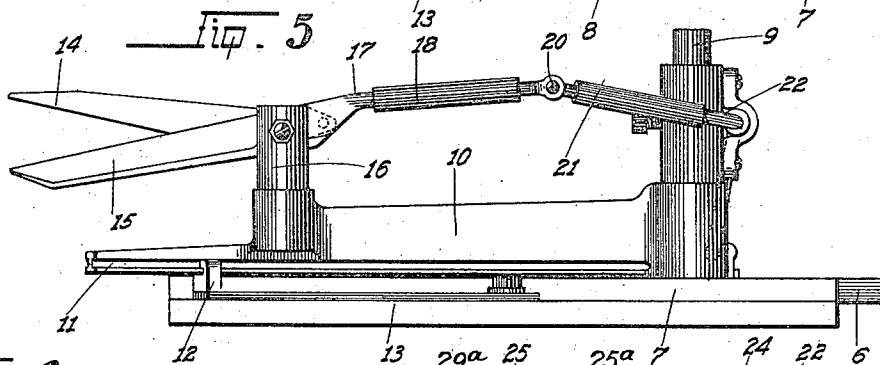


Fig. 6

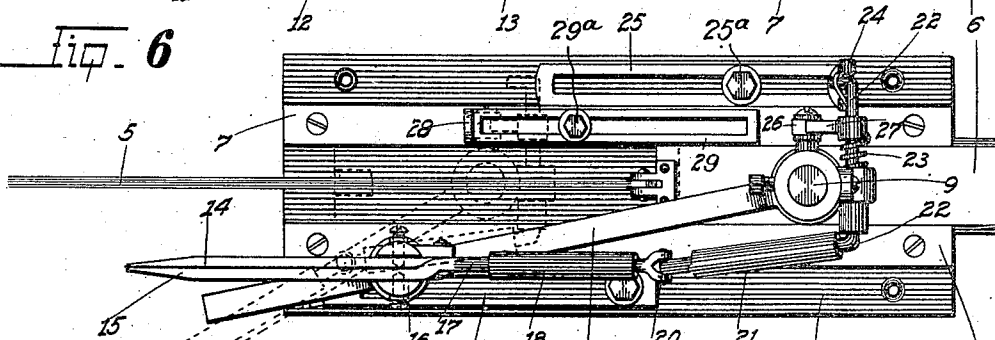


Fig. 7

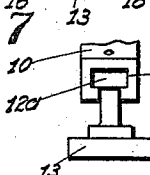


Fig. 8

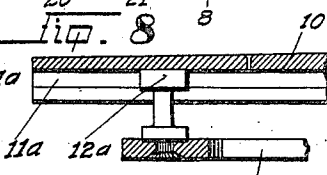
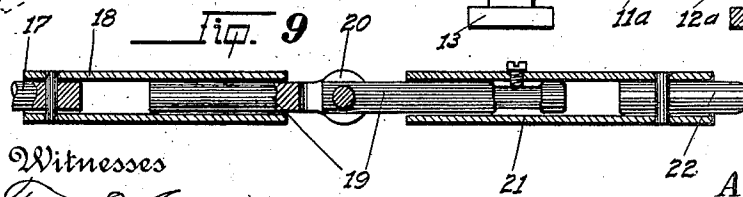


Fig. 9



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UNITED STATES PATENT OFFICE.

ALBERT LIVERNOCH, OF SACRAMENTO, CALIFORNIA.

RIBBON-CUTTING ATTACHMENT FOR PRINTING-PRESSES.

948,632.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed December 29, 1908. Serial No. 469,757.

To all whom it may concern:

Be it known that I, ALBERT LIVERNOCH, a citizen of the United States, residing at Sacramento, in the county of Sacramento, State of California, have invented certain new and useful Improvements in Ribbon-Cutting Attachments for Printing-Presses; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in printing presses and particularly to those used for printing cigar ribbons, badges or other similar material, the object of the invention being to provide a simple and automatic cutting means to be attached to any suitable printing press to automatically cut the ribbons or badges at any desired length and at any desired angle as fast as the same are printed.

A further object of the invention is to produce a simple, inexpensive and easily operated device for the purpose.

These objects I accomplish by means of an adjustable plate having a guide slot in which is slidably disposed a plate having a central post on which is mounted a reciprocating arm having an adjustable swiveled bearing on said adjustable plate, such arm maintaining a pair of scissors adapted to be opened and shut by a spring and dog mechanism each time the sliding plate operates, the said reciprocating arm being adapted to turn the scissors at any angle desired according to the angle at which it is desired to cut the ribbon, said sliding plate being operated by the action of the platen of the press. Also such other and further structure and relative arrangement of parts are employed as will more fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a side elevation of a printing press showing my improved attachment thereon. Fig. 2 is a top plan view of the same. Fig. 3 is a side elevation of the scissors and operating mechanism; showing the scissors closed. Fig. 4 is a similar view of the opposite side from that shown in Fig. 3.

Fig. 5 is a similar view showing the scissors open. Fig. 6 is a top plan view of the scissors and operating mechanism. Figs. 7 and 8 are modified views of the swiveled bearing for the reciprocating arm as shown in the other views. Fig. 9 is a sectional view showing a universal joint in the operating arm of the scissors. Fig. 10 is a top plan view of a guide plate and guides. Fig. 11 is a sectional view taken on a line $x-x$ of Fig. 10.

Referring now more particularly to the characters of reference on the drawings 1 designates the printing press and 2 the usual oscillating type of platen thereon. In using my device the types are set transversely with respect to the platen instead of longitudinally with respect thereto. This is for the purpose of permitting the ribbon bolt or spool 3 to be inserted in such position as to permit the ribbon 4 to be moved transversely across the face of the platen since it must extend to the front of the platen to be cut by the scissors since such scissors are operated by means of the oscillating movement of the platen 2 to which platen is pivoted the operating rod 5 which reciprocates the slide plate 6 working in a slot 7 in the plate 8 on which plate 6 is a post 9 carrying an arm 10 having a bottom groove 11 in which a guide 12 works such guide 12 being swiveled on an adjustable member 13 on the plate 8, whereby the arm 10 is turned, with each movement of the plate, at an angle to said plate whereby the blades 14—15 of the scissors can encounter the ribbon for the purposes of cutting it in the manner as will appear. The blade 14 is fixed in a bifurcated member 16 swiveled on the arm 10, the blade 15 being pivotally mounted in said member 16 and having a rod 17 provided with a sleeve 18 in which is slidably disposed a pin 19 having a center joint 20, the end of said pin 19 being swiveled in a sleeve 21 having secured therein an arm 22, such arm being pivotally mounted on the post 9 bending then downward and having wrapped around it a coil spring 23 on its horizontal portion such spring having a projecting arm engaged near the bottom of the vertical portion of said arm 22.

In practice the downward movement of the platen 2 drives the plate 6 and parts rearward until the arm 22 engages a lug 24 on an adjustable member 25 on the plate 8 which action causes the said arm 22 to tilt the sleeve

21 and incidentally the sleeve 18 and rod 17 upward thus opening the blade 15 until a dog 26 pivoted on the post 9 falls into position beneath a finger 27 on the arm 22 holding said blade 15 open. Then when the platen 2 moves upward it pulls the plate 6 and parts forward and this causes the arm 10 and scissors to be turned on its swiveled guide 12 to such an angle as will cause it to encounter the ribbon 4 and then the dog 26 engages a lug 28 on an adjustable member 29 on the plate 8. This disengages the dog 26 from the finger 27 and the spring 23 then operates to snap the blade 15 shut thus cutting the ribbon.

To regulate the length at which the ribbon shall be cut the plate 8 is moved forward or backward on the table 30, the rod 5 being movable in a sleeve 5^a for the purpose.

The ribbon 4 is moved through guides 4^a having adjustment wing nut 4^b to set them at any point desired to determine the proper length at which such ribbon is to be cut.

Figs. 7 and 8 show a modified form of the slot 11 of the arm 10. In these views the slot 11^a is an interior T-shaped slot with the swivel member 12^a formed to fit therein.

The members 25 and 29 are capable of adjustment by means of nuts 25^a and 29^a in accordance with the adjustment of the other parts of the device to insure accurate operation.

From the foregoing description it will be readily seen that I have produced an attachment for printing presses which substantially fulfils the objects of the invention as set forth in this specification.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.

Having thus described my invention what

I claim as new and useful and desire to secure by Letters Patent is:—

1. In a device of the character described, a stationary plate, a sliding plate on said stationary plate, a post on said plate, an arm pivotally mounted on said post, such arm having a bottom groove, a guide movable in said groove and swiveled at a point independent of said moving plate and a cutting mechanism operatively connected with said arm.

2. In a device of the character described a stationary plate, a sliding plate on said stationary plate, a post on said sliding plate, and an arm pivoted on said post and bending in a downwardly direction thereon, two lugs stationary with respect to said sliding plate and spaced apart engageable with said arm, a dog engageable with said arm and a cutting mechanism operatively connected with said arm.

3. A pair of scissors, one blade of which has an arm pivotally mounted on a movable post, means for operating said post to open said blade, means for holding such blade open, and means for closing such blade when said post moves a predetermined distance.

4. A pair of scissors, means for automatically opening said scissors, means for causing said scissors to move in a predetermined arc, and means for closing said scissors when such predetermined movement is reached.

5. In a device of the character described a sliding plate, a post carried by said plate, a projecting arm swiveled on said post and moving in a guide independently positioned with respect to said plate, and a cutting means carried by said arm.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT LIVERNOCH.

Witnesses:

PERCY S. WEBSTER,
JOSHUA B. WEBSTER.