Nov. 22, 1949 G. C. STECKLEY 2,489,229

STAMPING PRESS

Filed Dec. 16, 1946

Fig. 1.

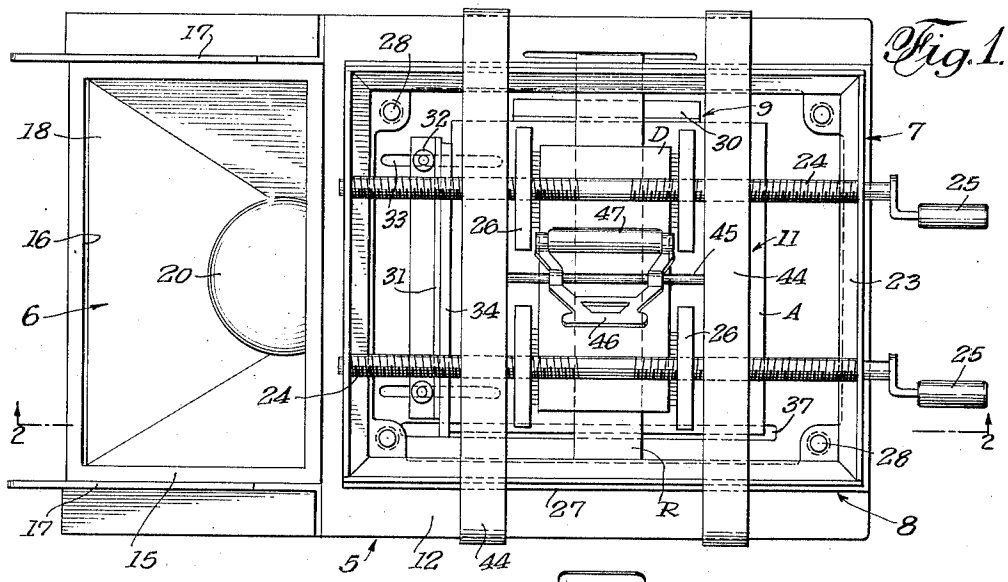


Fig. 2.

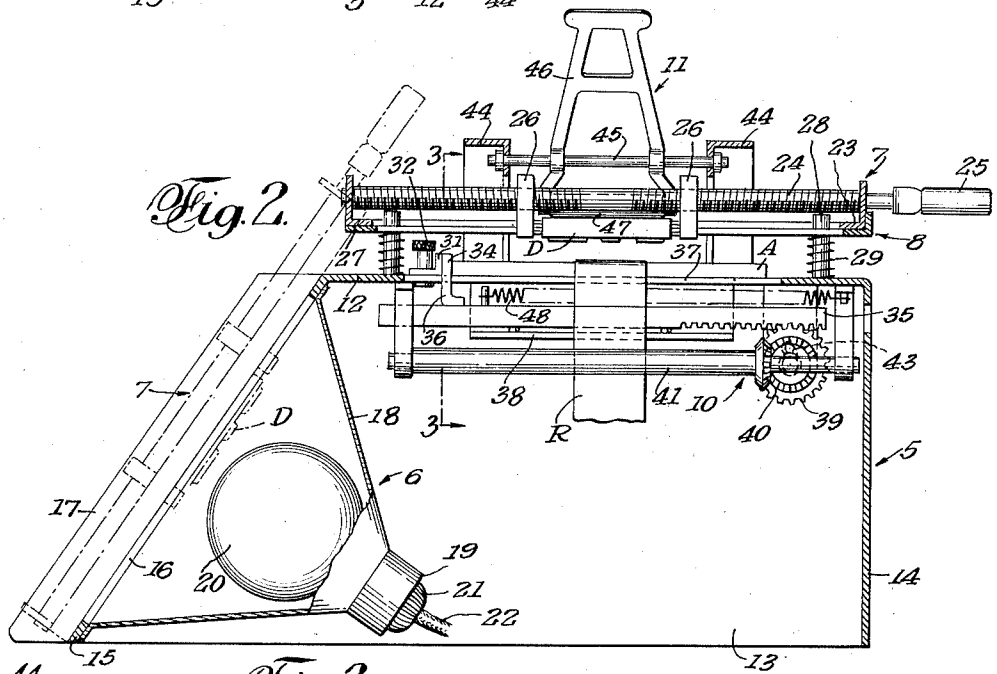
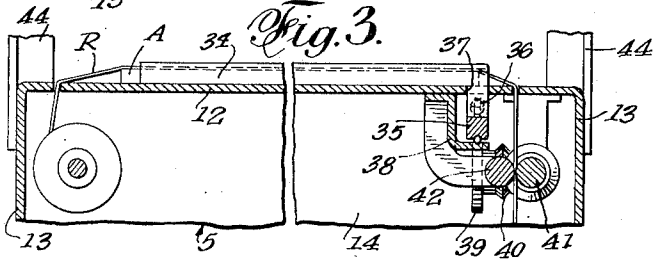


Fig. 3.



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STAMPING PRESS

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1 Claim. (Cl. 101—27)

1

This invention relates to means for stamping or impressing indicia and/or designs on articles, and deals more specifically with a stamping press for stamping on leather, wood, paper, plastic materials, etc.

The main object of the invention is to provide a stamping press wherein all the essential preparatory and stamping operations are carried out in a convenient and expeditious manner.

Another object of the invention is to provide a stamping press which embodies means for heating the stamping die or block prior to employing the same for stamping purposes.

Another object of the invention is to provide a stamping press which employs a color or metallic color bearing tape or ribbon and providing for automatic feed of said tape or ribbon according to the general size of the article to be stamped.

A further object of the invention is to provide a stamping press in which feed means for the mentioned tape or ribbon is operated by the article to be stamped upon positioning the same in the press.

A still further object of the invention is to provide a stamping press embodying novel means for applying stamping pressure.

My invention also has for its objects to provide such means that are positive in operation, convenient in use, easily installed in a working position and easily disconnected therefrom, economical of manufacture, relatively simple, and of general superiority and serviceability.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description. However, the drawings merely show and the following description merely describes one embodiment of the present invention, which is given by way of illustration or example only.

In the drawings, like reference characters designate similar parts in the several views.

Fig. 1 is a top plan view of a stamping press embodying the present invention.

Fig. 2 is a longitudinal sectional view thereof as taken on the line 2—2 of Fig. 1.

Fig. 3 is a broken cross-sectional view taken on the line 3—3 of Fig. 2.

The stamping press which is illustrated comprises, generally, a housing 5, means 6 for heating a stamping block or die D, a frame 7 for holding said die, a frame 8 yieldingly mounted on the housing 5 and receptive of the frame 7, gauge means 9 for locating an article A to be stamped and with relation to the die, means 10 operably

2

movable by said article to feed a ribbon R across the face of the article A, and means 11 mounted on the housing for depressing the die to cause an impression to be made, through the ribbon, on the article.

The housing is formed to have a top wall 12, side walls 13 and a rear wall 14. Said housing is formed with a sloping wall 15 which is provided with a large rectangular opening 16, said wall forming an obtuse angle with the top wall 12. Laterally spaced flanges 17 or the like extend outwardly from the sloping wall 15 and serve to guide and locate the die-bearing frame 7 for positioning the die D in the opening 16.

The means 6 comprises a pyramidal reflector housing 18 carried by the inner face of the wall 15, a suitable lamp socket 19 at the apex of said housing, and a heating lamp 20, preferably of the infra-red type mounted in said socket and disposed within the reflector housing 18. Electric current may be brought to the lamp socket 19 through the medium of a plug 21 on the end of a conductor 22 or connected to a suitable current source.

The die D may vary and be an engraving cut, type, or a stamping cut. The frame 7 therefor consists of a rectangular frame 23 mounting one or more feed screws 24, each operated by a handle 25, and adapted to move clamp blocks 26 relatively toward and from each other for clamping a die D in the frame 7.

The frame 8 comprises a rectangular frame 27 mounted to be parallel to the housing wall 12 on locating studs 28 set upright on said wall. A compression spring 29 around each stud 28 yieldingly supports the frame 8 for movement toward and from the housing 5. The frame 8 is of a size to slidingly receive and hold the frame 7 and thereby hold the die D in spaced parallel relation to the housing wall 12.

The means 9 consists of a lateral guide 30 and a transverse guide 31 adjustably mounted on the housing wall 12 and locked thereto by means such as screw studs 32 slidable in slots 33 formed in said wall.

The means 10 comprises a bar or the like 34 arranged across the housing wall 12 parallel to the guide 31, a longitudinally arranged gear rack 35 connected to the bar 34 as by an extension 36 movable in a slot 37 formed in the wall 12, a support bracket 38 for the gear rack, a gear 39 engaged with the rack and rotated thereby upon longitudinal movement of the latter, and means operable by rotation of said gear during movement of the rack, in one direction, to effect feed

of the ribbon R. The latter means includes bevel gearing **40** and feed rolls **41** and **42** driven thereby and arranged along one inner side of the housing **5**. A one-way clutch **43** is embodied in the connection between the gear **39** and the bevel gearing **40** so that only upon movement of the bar **34** and of the gear rack **35** will the rolls **41** and **42** rotate to effect the mentioned feed of the ribbon R.

The ribbon R is generally conventional and may be a cellulosic tape on one side of which is provided a transferable coating of color, metal or the like.

The means **11** comprises spaced frame members **44** extending across the housing **5**, a pivot pin **45** extending between the frame members **44**, a manually operable lever **46** carried on said pivot pin, and a squeegee roller **47** on said lever for engagement with the die D by manually tilting the lever **46** on its pivot.

In operation, a die D is clamped in the frame **7** and the latter placed as shown by the dot-dash lines of Fig. 2 for heating by the means **6**. While the die is being heated, an article A to be stamped is placed on the wall **12** by sliding the same along said wall until it engages the bar **34**. Continued sliding of the article will bring said bar against the guide **31** as shown. Accordingly, the initial set position of said guide determines the degree of movement of bar **34**. The movement of bar **34** is imparted to the gear rack **35** which was initially held in retracted position by a spring **48**. Movement of the rack, through gearing **39** and **40**, causes feed rotation of rolls **41** and **42** and, consequently, feed of the ribbon R, said feed being commensurate to the movement of the rack. The die frame **7** is then removed from heating position and placed in the frame **8** beneath the squeegee **11**. The latter is then swung back and forth so that the squeegee roller **47** wipes across the die to depress the same and the frames **7** and **8** on the studs **28** to accomplish stamping of the article A by the heated die through the ribbon R.

The article A is then removed and the spring **48** becomes effective to retract the rack **35** and the bar **34**, the one-way clutch **43** permitting such retraction without reverse rotation of the feed rolls **41** and **42**. Another stamping operation can then be performed.

While I have illustrated and described what I now regard as the preferred embodiment of my invention, the construction is, of course, subject

to modifications without departing from the spirit and scope of my invention. I, therefore, do not wish to restrict myself to the particular form of construction illustrated and described, but desire to avail myself of all modifications that may fall within the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

A press of the character described, comprising, in combination, a housing having a horizontal top wall and a sloping front wall having an opening and forming an obtuse angle with the top wall; a frame resiliently mounted on and spaced from the top wall in parallel relation thereto, said frame having spaced lateral flanges; similarly spaced flanges on the sloping wall and aligned with the flanges of the frame; a die-holding frame manually slidable along a straight line from a position between the flanges on the sloping wall to a position between the flanges of the resiliently-mounted frame; means for heating the die in the die-holding frame while in position between the flanges on the sloping wall, said heating means being carried by said sloping wall and positioned to direct heat through the opening in the latter wall; and means carried by the horizontal top wall for engaging the die of the die-holding frame while said latter frame is disposed between the flanges of the resiliently-mounted frame to depress the same in a direction toward said horizontal top wall.

GRACE C. STECKLEY.

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