

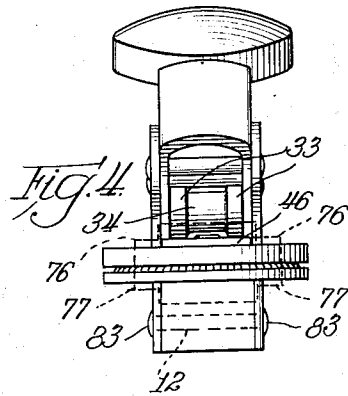
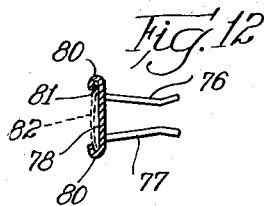
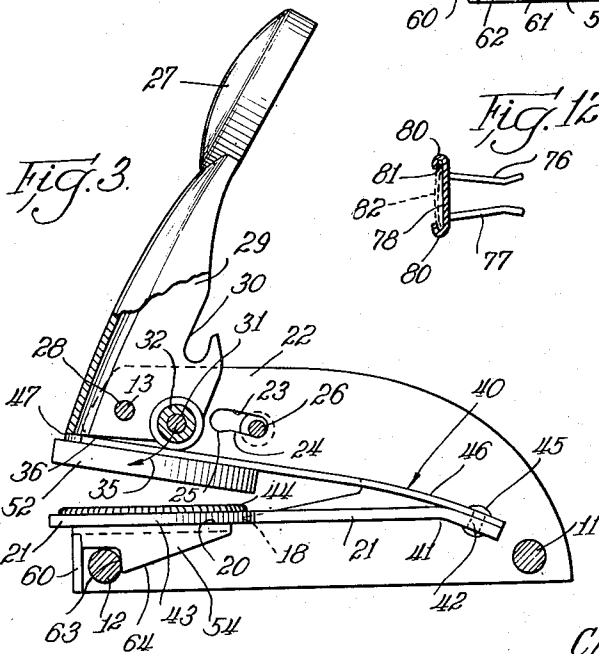
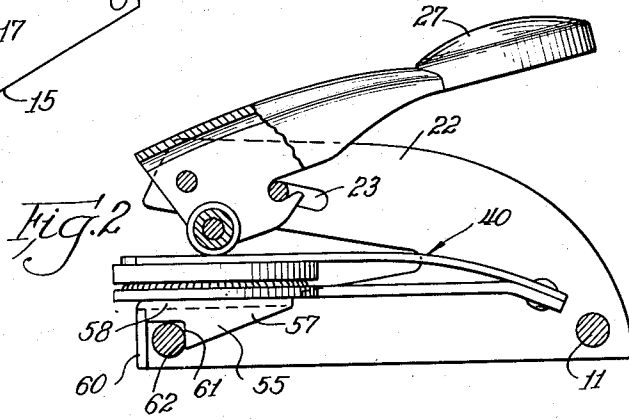
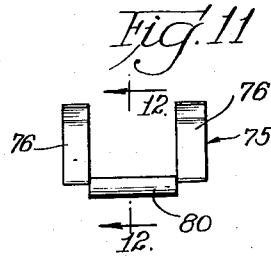
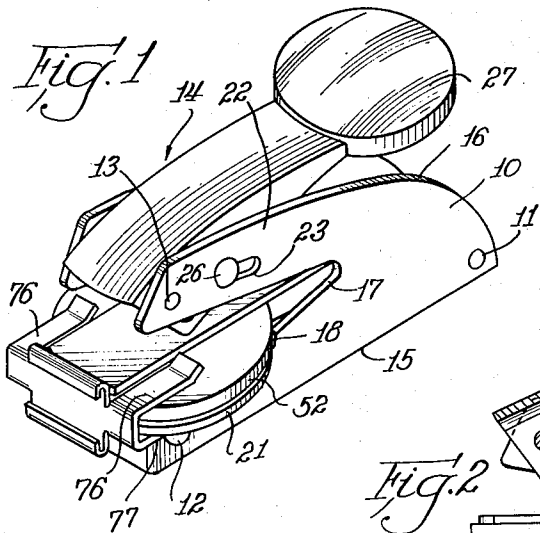
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C. PRIESMEYER
SEAL PRESSES

2,706,448

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2 Sheets-Sheet 1



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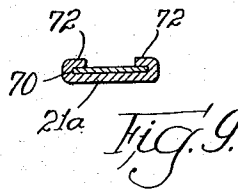
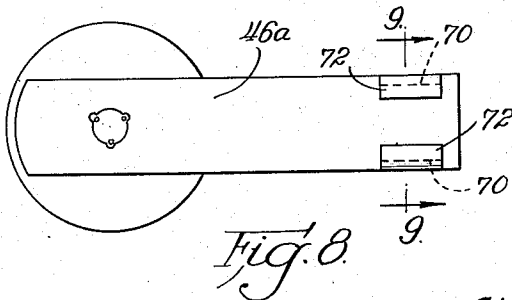
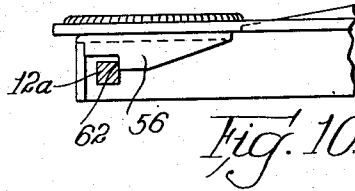
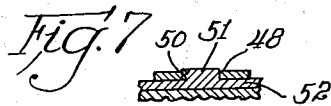
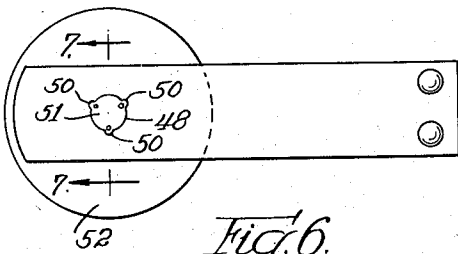
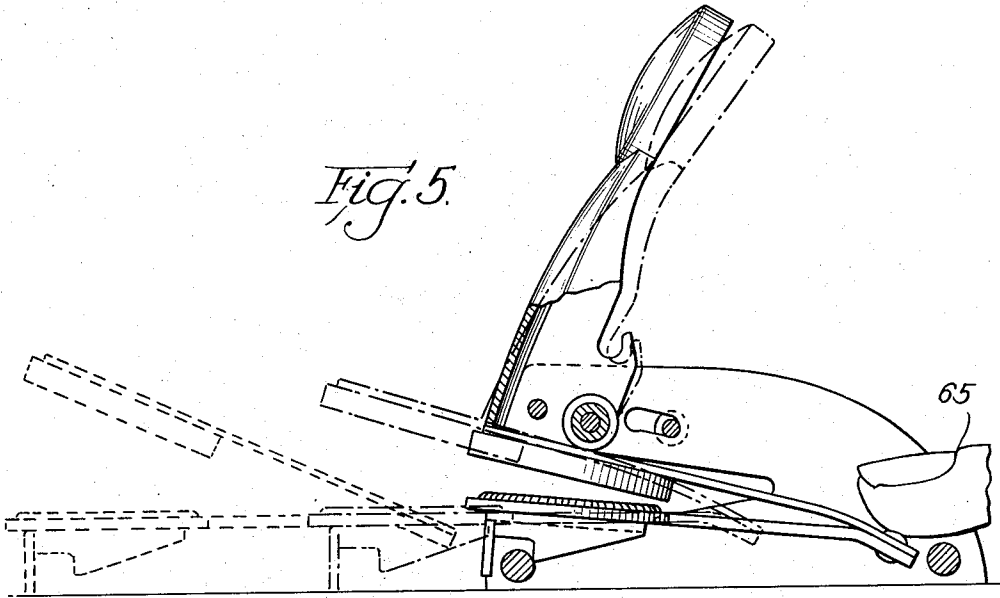
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SEAL PRESSES

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5 Claims. (Cl. 101—3)

The present invention relates to paper embossing devices and particularly to table model seal presses prevalently used by corporations, government offices and notary publics.

In offices where a number of seal presses are kept, the problem of adequate safe storage space and the expense of many presses become important considerations. Most corporate and government seals are of the table type where the press can be set or affixed to a table top. The frames of these presses are sufficiently bulky that space in the safe or the cost of the frames will be a material economy measure now that such can be saved with the present invention.

Moreover, the expense of labor in servicing seals that are in frequent use is also an item to be carefully considered by the manufacturer of the pocket seal in a competitive market.

Very often the seals which are in continual use in offices of the government such as the clerk of the courts, recorders of deeds, etc., are fastened permanently to table tops and also are of such size that they could not be conveniently stored in a safe place away from people who might play with them, or people trying to make improper use thereof even if they could be detached from the table top.

One of the objects of the invention is to provide a table type seal which accomplishes economies along the lines indicated heretofore as being desirable, in which construction the die elements can be removed and stored safely each night in a small space, can be quickly serviced, and a number of seal dies used interchangeably in the same frame, whether it is fastened on top of a table or constitutes a portable seal frame.

The invention is further characterized by an arrangement in which only one frame need be permanently mounted if desired and the seal elements can be readily removed and re-inserted for interchangeable use including identical seals which are used so much that wear and the need for replacement occurs often.

A further object of the invention is to provide an improved seal press, and cooperating seal elements in which the seal dies are held in cooperative relationship at all times, regardless of whether or not they are in the press frame or removed from the press frame.

Another object of the invention is to provide a seal press wherein the die and die supporting elements can be moved quite easily with little effort from the frame when upon occasion such is desired, yet are held against shifting or displacement while in the frame throughout all normal use thereof.

The invention is also characterized by a novel relationship of parts, which is easily made, assembled, dismantled, operated, and serviced without the parts slipping, loosening, scoring, or damaging one another during their assembly and use, or when they are stored.

Other objects of the invention include the provision of a very light and compact table seal which is inexpensive to manufacture and service and ruggedly constructed for long and satisfactory operation.

These being among the objects of the invention, further objects and advantages will become apparent from the drawing and the description relating thereto, in which:

Fig. 1 is a perspective view of a table top seal press showing the preferred embodiment of the invention.

Fig. 2 is a side elevation partly in vertical section of the device shown in Fig. 1.

Fig. 3 is a view similar to Fig. 2 illustrating the position

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of the elements when the seal press is in the other of its alternate positions.

Fig. 4 is a front elevational view of the seal press shown in Figs. 1 and 2.

Fig. 5 is a view similar to Fig. 3, illustrating the manner in which the dies may be removed from the press.

Fig. 6 is a plan view of the die and spring assembly removed from the press.

Fig. 7 is a section taken on line 7—7 of Fig. 6.

Fig. 8 is a plan view of a modified form by which the spring and die supporting elements are secured in predetermined alignment.

Fig. 9 is a section taken upon line 9—9 of Fig. 8.

Fig. 10 is a side elevational view showing another embodiment for holding the die and spring assembly in place in the frame.

Fig. 11 is a top plan view of a clip employed to hold the die elements together when desired for purposes of transportation or storage.

Fig. 12 is a section taken up on line 12—12 of the clip shown in Fig. 11.

The invention is characterized by a unitary assembly of the upper and lower dies and their supporting elements which is readily installed and removed from the press frame. It contemplates an interlock or latching relationship between the lower die and the cooperating elements on the frame so that downward pressure at the rear end of the unitary assembly readily releases the latch relationship for a snap out or quick removal of the unitary assembly from the throat of the press frame. In order to assist the removal of the unitary assembly once the latch relationship is disengaged, the roller carried by the pivotally mounted handle remains in continuous contact with the element supporting the upper die member, so that there is a rolling action present on the top die and its supporting member so that the die is almost ejected from the press frame by the springiness of the unitary assembly once the latch is released.

More particularly the seal illustrated in the several views comprises two substantially identical side frames 10 held together in spaced relationship by spacer rivets, one 11 at the back, another 12 at the lower front end, and another 13 at the upper front end, the last of which also serves as a pivot pin for the handle shown generally at 14.

The bottom edges 15 of the side frames are straight and coplanar to rest on top of a table (not shown), and the upper edges 16 are arched upwardly and forwardly for strength and decorative purposes. The side frames are notched out at their front end to provide a throat 17, whose lower edge is provided with an outwardly facing shoulder 18, in front of which the remainder of the throat edge is straight as at 20, and preferably parallel with the bottom edge 15 of the side frame. It is upon the straight edge portion 20 of the throat that the bottom face of the lower die holder 21 rests as positioned by the shoulder 18 when the lower die holder is located in its operative position.

The notching of the side frame provides an overhanging arm 22, which has a slot 23 therein of the shape and contour best illustrated in Fig. 3 and Fig. 5, same being elongated in a horizontal direction with the lower edge 24 thereof, notched as at 25, near its front end and inclined rearwardly over the remaining portion so that a loose rivet 26 disposed in the slot will normally roll to the rear end of the slot 23 when free to do so. Otherwise the side frames 10 are perforated at suitable points to receive the spacer rivets 11, 12 and 13 in the places shown.

Referring now to the handle 14, same is struck from a sheet of heavy metal to the shape shown throughout the several views, in which a pad shaped extremity 27 is provided at the free end for the comfort of a person's hand, and the remaining portion is stamped to a U-shaped form with holes in the side as at 28 which journal on the rivet 13. A notch 30 is provided to cooperate with the roller 26 when the notch 30 coincides with the portion 25 of the slot 24 as when the handle 14 is moved to its fully depressed position.

The sides 29 of the handle are riveted together by a rivet 31, which carries thereon a roller 32, having

two roller surfaces 33 separated by a groove 34 as shown in Fig. 4. The handle as thus formed with the roller in place is mounted between the upper arms 22 of the side frames at the time that the rivet 13 is inserted and upset to hold the side frame members together. Then as the handle 14 is depressed the roller follows a path indicated by the broken line arc 35, Fig. 3, and rolls along the supporting member for the upper die as subsequently described. The front edge and the side walls 29 of the handle 14 are coplanar as at 36, and as best shown in Fig. 3 the roller 32 extends below the coplanar edges 36.

The unitary die assembly 40, is best illustrated in Figs. 3 and 5 and comprises the lower die member 21 stamped from heavy flat stock to provide the inner end portion with parallel sides and terminating in a downwardly bent end portion 41 perforated as at 42. The front end thereof is rounded as at 43 to receive in supported relationship the lower die 44. Riveted to the rear end of the lower die holder as by rivets 45 is a substantially flat spring blade 46 whose front edge is rounded as at 47 to mate with the contour of the handle 14 at that point and provide a pleasing appearance. Spaced from the front end of the spring 46, a round hole 48 is punched out having three small circumferentially spaced grooves 50 in the walls thereof. The hole 48 is provided so as to receive in supporting relation a cylindrical stud 51, which is fashioned on the top of the upper die 52 to locate and hold the die 52 in place. To do this the "top" of the seal in the upper die 52 is oriented for desired embossing position with respect to the flat spring blade 46. The stud 51 is then received in the hole 48 and the stud 51 is prick-punched opposite each one of the grooves 50 to upset the stud stock into these grooves. This not only holds the die in correct orientation throughout the life of the seal but prevents it from ever coming loose.

In making the unitary assembly after the upper die 52 is oriented and in proper place, the rivets 45 are applied to secure the spring blade 46 in rigid location with respect to the lower die holder 21. The lower die holder is placed upon a flat surface, with the lower die 44 held in mating relationship with the upper die 52, and a bonding substance (not shown) is located on the upper face of the lower die holder 43 to adhere the lower die 44 in place when the lower die 44 is carried by the upper die thereagainst under pressure. Once adhesion is accomplished, either chemically or under heat, the unitary die assembly 40 is ready for use with the press frame already described. The dies will mate perfectly each time they are brought together.

In mounting the unitary die assembly on the press frame, the handle is brought to the position shown in Fig. 3. The riveted end 41 is introduced through the throat of the press frame and between the sides thereof to the position shown in Fig. 3. The final movement in the insertion of the unitary die assembly is one in which the spring blade 46 rides on the roller 32 and as it does so the spring blade 46 is flexed to impose thereon sufficient tension to urge the upper die member 52 upwardly and carry with it the handle 27 when free to do so. The insertion is completed when the rounded front portion 43 of the lower die supporting member engages the shoulder 18.

Referring now to the several embodiments employed to hold or latch the unitary die assembly in place in its fully inserted position, reference is made to Figs. 2, 3 and 10, in which are shown sheet metal stampings 54, 55 and 56, having side portions 57 bent downwardly from the central body portion 58, and with a front end portion bent downwardly to provide a front plate 60. The side portions are notched as at 61 to provide either a square shoulder 62 or a rounded shoulder 63, that engages or latches over the rivet 12 (Fig. 3) or a square rivet 12a (Fig. 10). In all embodiments of this latch member an incline 64 is provided along the rear edge of the side elements so that as insertion of the unitary die assembly is made the lower die 44 is carried across the rivets 12 or 12a until the recess portion 61 is reached, whereupon the lower die snaps downwardly into place. These latch members are welded by well known techniques upon the bottom face of the lower die holder 21 in the exact position desired as determined by templet so that the front face 60 exactly fills the space between the side member 10 of the seal press when the unitary

die assembly is in its operative position. In this connection it is pointed out that in the preferred embodiments the notch 61, and the lowest extremity thereof is no longer than is needed to hold the die in solid abutment with the rivet 12 under all operating conditions.

Then when it becomes desirable to remove the unitary die assembly, a person's thumb, as best shown in Fig. 5, or fore finger 65, is placed upon the rivets 45 and pressed downwardly. This levers the lower die supporting element 21 against the frame at the shoulder 18, lifting the front end thereof until the shoulder 62 or 63 is lifted high enough to clear the rivet 12 or 12a, whereupon the incline 64 is moved forward to engage on top of the rivet 12 before the thumb is released and the roller 32 provides a rolling action along the band spring 46. Between the rolling action of the roller 32 and the incline 64 on the lower catch, the tension upon the spring causes the unitary die assembly to move outwardly, particularly if the handle 27 is slightly depressed to place the roller 32 solely in contact with the band spring 46. It will be noted that the cutaway portion 34 on the roller 32 serves to clear the upper end of the stud 51 both in operation and during removal of the unitary die assembly from the press frame.

A modification is shown in Figs. 8 and 9 which emphasizes perfect alignment at all times between the upper and lower die supporting elements, wherein the spring 46 is notched out as at 70 on both sides near the rear end thereof, and ears 72 on the sides of the lower die supporting member 21a are swaged into the notches 70 and around the spring 46a. The embodiment shown in Fig. 6 saves material, whereas the embodiment shown in Fig. 8 saves in labor cost. Both perform satisfactorily and it is merely a question of production economies and a particular plan as to which construction might be preferred.

For purposes of storing the dies in closed relation when not in use, a clip 75 is shown in Figs. 1 and 11, which is die stamped from a sheet metal part to have vertically spaced fingers 76 and 77 that telescope over the outside of the two die members when the two die members are closed as shown in Fig. 1. Intermediate the fingers 76 and 77 the main portion 78 of the clip has its upper and lower edges reversely bent as at 80 to provide a channel way 81 that receives a card therein which identifies the seal.

It will be noted that the upper finger 76, as shown in Fig. 4, need only be separated a distance equal to the width of the spring blade 46, whereas the finger 77 must be spaced a sufficient distance to accommodate the overall width of the press frame, whose width is greater than that of the spring blade. Also in Fig. 4 it will be noted that the heads 83 of the rivet 12 provide protuberances which serve a useful purpose as will now be described.

The spacing actually provided between the fingers 76 is more than enough to clear the width of the plate spring 46, but telescopes snugly along the sides of the seal press when upon occasion the press is in use and the clip removed so that the seal can be used. At such times the clip is slipped from the seal dies when the handle 14 is depressed, and then inserted below the lower die to telescope over the seal press frame in supported relationship, the lower finger 77 passing under the rivet heads 83 to hold the clip in upright position. Thereafter when upon occasion it is desired to remove these particular dies from the press frame the handle 14 is depressed far enough for the clips to slip over the dies, after which the handle 14 is released and the dies are free to be removed by merely lifting them from their engagement with the rivet 12.

The operation of the latch for the handle is believed to be clearly shown in the drawings. However, as a matter of explanation, whenever it is desired to close the dies when not in use, the handle 14 is depressed until the notch 30 coincides with the offset 25 in the slot 23 and the roller 26 is brought forward into an inter-engaging relationship with the notch 30 and offset 25, whereupon the handle 14 is released and the roller 26 holds the handle in its down position with the dies closed. Then when it is desired to release the handle 14 the handle 14 is depressed again and the roller under the influence of gravity will roll out of its interlocking position to the position shown in Fig. 3, whereupon the handle 14 when released will spring to its uppermost position under the effort of the spring 46.

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With this arrangement of the roller and handle, the handle is automatically released at all times from the roller latch whenever the dies are withdrawn from the frame. There being no upward tension exerted by the spring when it is absent, the roller is free to descend to its unlatched position. Thus, whenever the frame is empty, the handle can be raised immediately for the insertion of the dies.

Having thus described the invention and several modifications thereof, it will be readily apparent to those skilled in the art how the stated objects and other advantages are present with the invention and how further and various modifications and changes can be made therein without departing from the spirit of the invention, the scope of which is commensurate with the appended claims.

What is claimed is:

1. In a device of the class described, the combination of a seal press frame having spaced side frame elements notched at their front to provide upper and lower arms, means for holding the arms in spaced relation, a pair of dies, a spring member supporting at one end one of the dies as an assembly, a holder member supporting at one of its ends the other die as an assembly, means for securing said members together at their other ends for maintaining the proper cooperation between the dies as they move into and out of their mating relationship at a predetermined plane, a handle pivoted to the upper arms including a roller spaced from the pivot and engaging one of said members throughout its movement, said spring member urging both the separation of the dies and the raising of the handle, said handle driving said dies into said mating relationship when actuated, and latch means for locating and holding the lower one of the two assemblies in a predetermined position on said lower arms including an element carried by said lower arms and an element carried by said lower die member, one of said elements having a shoulder engaged by the other element for relative movement between the elements in a direction substantially perpendicular to said plane, and an inclined track adjacent said shoulder for relative movement in a direction substantially parallel to

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said plane, means spaced from said shoulder for supporting the lower die assembly on the lower arms in contacting relationship, said latch means being released by displacing said other ends by movement thereof transversely to said plane about the last said means when said handle is released to release the engagement at said shoulder.

2. The combination called for in claim 1 including a gravity-operated roller mounted on said upper arm in a slot therein for movement between upper and lower positions, said handle having a notch adapted to be engaged by said roller when said roller is raised to its upper position and with the handle moved to its lower position against the force of the spring member, said spring member frictionally holding said roller in said notch.

3. The combination called for in claim 1 in which said handle frictionally engages said one of said members at the upper limit of movement of said member, said roller being in sole contact with said one of said members throughout its movement for ejecting said die assemblies from the press frame by the springiness of said spring member once the latch means is released.

4. The combination called for in claim 1 in which said other element is a rivet means exposed at the front between the lower arms and forms a part of the means for holding the arms in spaced relationship.

5. The combination called for in claim 1 in which said means for holding the arms in spaced relation includes a plate flush with the front ends thereof and carried by said lower one of the two assemblies.

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