April 20, 1937. C. PRIESMEYER 2,077,853

POCKET SEAL PRESS

Original Filed Jan. 10, 1934 2 Sheets-Sheet 1

Fig. 6

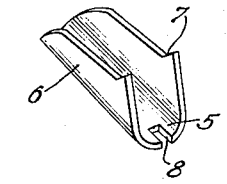


Fig. 4

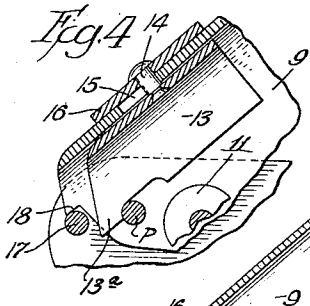


Fig. 7

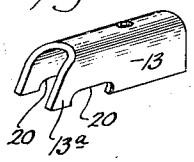


Fig. 3

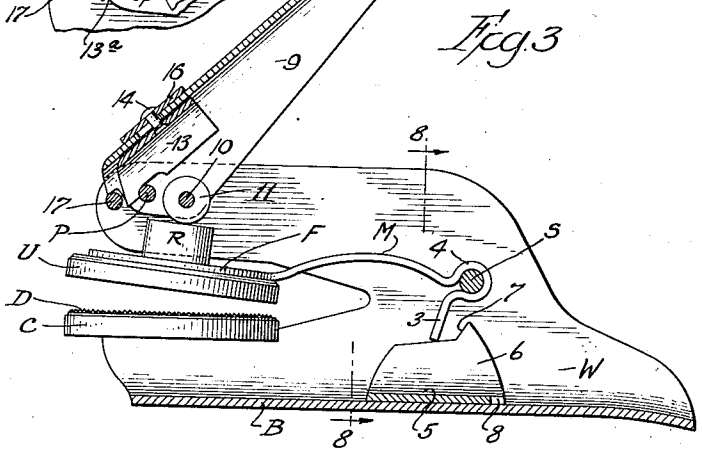


Fig. 1

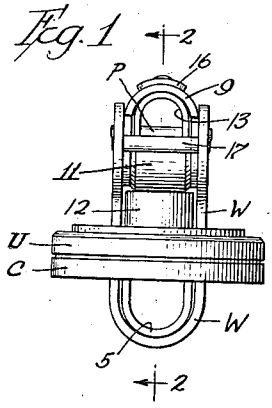


Fig. 2

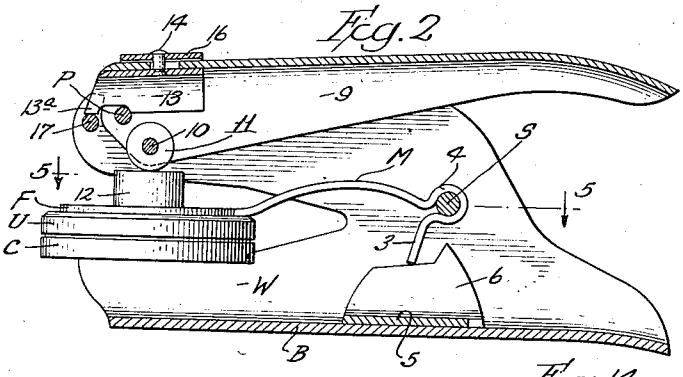


Fig. 14

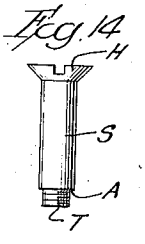
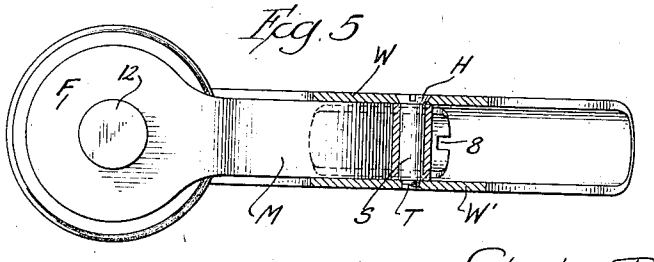


Fig. 5



Inventor:

Charles Priesmeyer

by Albert Scheibb.

Attorney

April 20, 1937. C. PRIESMEYER 2,077,853

POCKET SEAL PRESS

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Fig. 12

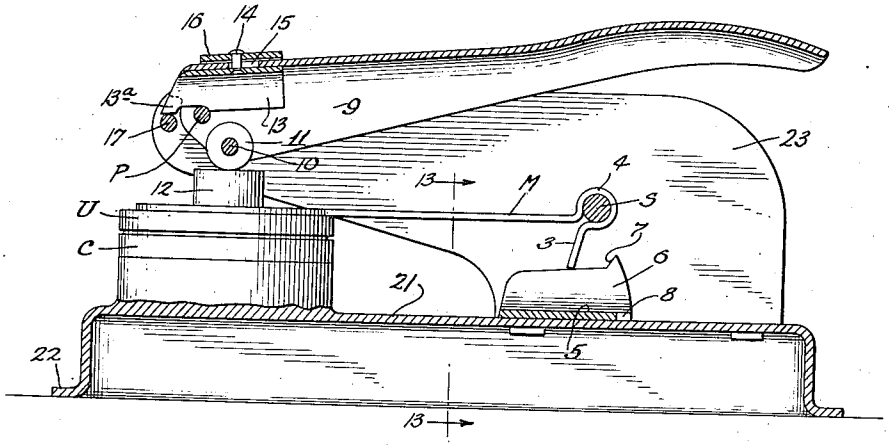


Fig. 13

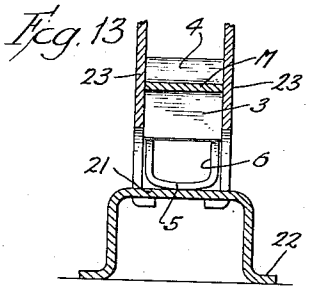


Fig. 8

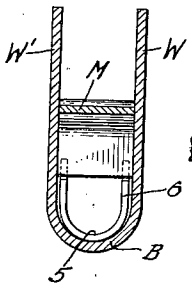


Fig. 9

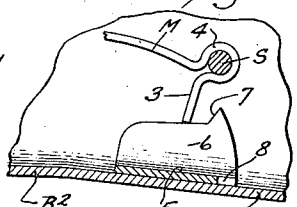


Fig. 10

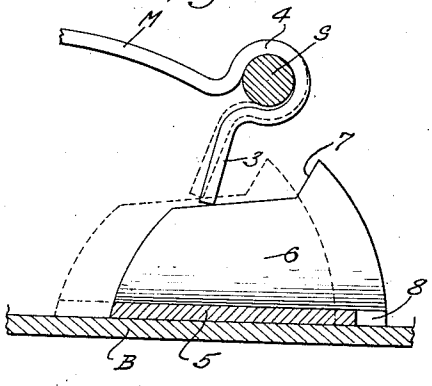
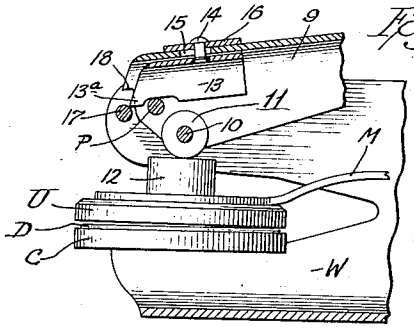


Fig. 11



Inventor:

Charles Priesmeyer

by Albert Scheidt

Attorney

Patented Apr. 20, 1937 2,077,853

UNITED STATES PATENT OFFICE

2,077,853

POCKET SEAL PRESS

Charles Priesmeyer, Park Ridge, Ill., assignor to Gustav A. J. Meyer, Chicago, Ill.

Refiled for abandoned application Serial No. 706,051, January 10, 1934. This application January 18, 1937, Serial No. 121,061

11 Claims. (Cl. 101—3)

My invention relates to seal-presses for imprinting a notarial seal or the like on paper interposed between a lower die (or socalled "counter die") and an upper die, and in both of its major objects aims to provide improvements which will be equally applicable to socalled "pocket seals" (designed so as to be supported by the hand of the user when making the impression) and socalled "lever seals" adapted to seat on a table or desk when the impression is being made.

One object of my invention is that of providing a simple, inexpensive and conveniently manipulated latch for locking the die-depressing lever of such a seal-press in its depressed position, so as to prevent dust from gathering on the faces of both dies and also to compact the seal-press, when of a pocket type, so that it will fit better into a pocket. In this aspect, my invention aims to provide a latch which will be disposed where it can conveniently be reached by a finger of the user, which will be held in its closure position by the action of the spring employed for normally raising the upper die, and which will have no portions projecting at any time beyond other parts of the seal-press. Moreover, my invention aims to provide a slidably supported latch which will require no spring for holding it in its unlocked position and yet will not slip into its latching position during the ordinary operation of the seal-press.

Another object of my invention is that of providing simple and effective means for adjustably tensioning the die lifting spring when this spring is formed from a strip of resilient metal and has a rearward portion curled about a spring-supporting pin; and to arrange these means so as to take up all lost motion between the said pin and the curled portion of the spring, thereby insuring an accurate alining of the two dies.

In this aspect, my invention aims to provide means for the just recited purpose which will permit a convenient and speedy removing of the spring (along with the die, or at least the die-carrier supported by the spring), which will permit a speedy replacing of these removed parts, and which will automatically insure a proper alining of the two dies when the removed parts have been replaced.

Still further and also more detailed objects will appear from the following specification and from the accompanying drawings, in which

Fig. 1 is a front elevation of a pocket seal-press embodying my invention, taken when the lever is latched in its depressed position.

Fig. 2 is a central, vertical and longitudinal section taken along the line 2—2 of Fig. 1.

Fig. 3 is a section taken in the same plane as Fig. 2, after the latch has been released and the spring has raised the lever to its extreme upward position.

Fig. 4 is an enlargement of a portion of Fig. 4, showing the latching member in its released position.

Fig. 5 is a plan section taken along the line 5—5 of Fig. 2.

Fig. 6 is a perspective view of the wedge member which tensions the spring and also takes up any initial play between the spring-supporting screw and the curled part of the spring.

Fig. 7 is an enlarged perspective view of the latching member.

Fig. 8 is a transverse vertical section, taken along the line 8—8 of Fig. 3.

Fig. 9 is a section allied to a portion of Fig. 2 or 3 showing an alternative shaping of the wedge member and the adjacent bottom portion of the frame of the seal-press.

Fig. 10 is an enlargement of a portion of Fig. 2 or 3, with full lines showing the rearward portions of the spring as initially formed and with dotted lines showing the wedge member and portions of the spring when the wedge member has been slid under the depending end of the spring to tighten the curled spring part around the shank of the screw which supports the spring.

Fig. 11 is a section drawn on a larger scale than Fig. 2, showing how the latching member is halted against sliding forwardly into its latching position when the upper die is still spaced sufficiently from the lower die to permit a sheet of paper to be inserted between the dies.

Fig. 12 is a section allied to Fig. 2, showing both features of my invention as applied to a socalled "lever seal-press" having a base member adapted to seat on a table when the press is being used.

Fig. 13 is a transverse vertical section through Fig. 11, taken along the line 12—12 of that figure.

Fig. 14 is an enlarged plan view of the spring-supporting screw.

In the "pocket seal" embodiment of Figs. 1 to 9 inclusive, my seal-press has a single piece body member formed by bending a stiff sheet metal punching to a uniform U-shaped cross-section so as to present parallel side webs W and W1. Each of these webs is forked at its forward end, and the lower prongs of the two forks conjointly support a die-carrier C in which the lower die D is mounted.

Spanning the two frame webs W and W1 (Fig.

8) rearwardly of the lower die carrier, and desirably at higher elevation than that carrier, is a screw S having its axis at right angles to the upright faces of both of the said webs. This screw preferably is formed as shown in Fig. 14 so as to include a slotted head H, a cylindrical shank S presenting an annular shoulder A at its juncture with the threaded tip T, which shoulder will abut against the inner face of one frame web W as shown in Fig. 5 to halt the tightening of the screw at a definite point.

The upper die carrier U has its central riser stem 12 extending through a central bore in the widened forward portion F of a spring which has as its remaining portion a strip of a width slightly less than the clear spacing between the upright inner face parts of the two frame webs W and W1. This uniformly wide part of the spring is preformed to include an upwardly bowed main part M terminating forwardly of the screw S, a depending free end part 3 extending downwardly from a point forward of the screw, and a curled part 4 connecting this free end part with the rear end of the said bowed part.

The curled part 4 desirably is formed so as to extend for at least three-fourths of the circumference of the shank S of the screw around this shank, and so that the gap between the ends of the said curled part will open forwardly and downwardly from the said screw shank. Moreover, the depending part 3 has its free end considerably above the adjacent part of the bottom B of the U-sectioned frame, and this depending spring part preferably slopes downwardly forward at a minor acute angle to a vertical plane diametric of the screw S when the medial longitudinal line of this frame part is parallel to the general plane of the faces of the two dies.

In curling and tempering the just described spring, the curled part 4 is formed as shown in full lines in Fig. 10, namely with the interior diameter of this curled part somewhat larger than the diameter of the shank S of the spring-supporting screw, so that this screw shank can be slid freely through the said curled part when the spring (after having the upper die carrier fastened to it) is manually held in approximately the position shown in Fig. 10.

After the screw has been inserted so that its annular shoulder A (Fig. 14) bears tightly against the inner face of the frame web W into which the tip portion T of the screw is threaded, the end part 3 of the spring initially depends at a quite minor acute angle opening downwardly forward from a vertical axial plane through the screw, as shown in full lines in Fig. 10, and the assembler then slides a wedge member forwardly upon the bottom of the press frame and under the tip of this depending spring end portion to contract the curled part 4 into gripping relation to the screw shank S.

When the body member of the seal-press is a single-piece sheet metal frame presenting a U-sectioned bottom B (as in Figs. 2 and 3), the wedge member desirably is a steel punching of similar sectional shape and of such spread as to be loosely slidable within the lower portion of the said frame, as shown in Fig. 8. The upper edges of both webs 6 of this wedge member slope downwardly forward with respect to the mid-width portion of the curved bottom 5 of this wedge member, and each of these riser webs desirably has an upward stop lug 7 adjacent to its rear end, as shown in Fig. 6. Moreover, the wedge member desirably has a central notch 8 in the rear end of its bottom for receiving the tip of a screw-driver by means of which the wedge member is slid forward upon the bottom of the press frame during the assembling, thereby enabling the assembler to keep both webs of the wedge member sufficiently spaced from the riser webs of the frame to prevent the stop lugs 7 from catching on the inner walls of the said frame webs.

During this forward sliding of the wedge member, the sloping upper edges of its webs 6 first engage spaced portions of the tip of the depending spring portion 3, and the above described spacing of the wedge webs from the webs of the frame (as shown in Fig. 8) permits the wedge member to rock sufficiently about the medial longitudinal line of its bottom to distribute the pressure equally over both webs 6 of the wedge member.

When the wedge member is then forcibly slid further forward, it lifts the depending spring part 3 and also tilts the latter part somewhat further forwardly while contracting the curled part 4 of the spring so that the lower portion of this curled spring part bears tightly against the screw shank S both upwardly and forwardly, as shown in dotted lines in Fig. 10.

This inserting of the wedge member is all done after the lever member of the press has been pivoted to the frame of the seal press and latched in its depressed position of Fig. 2 (as hereafter described) so that the upper die is forcibly held in alined and interfitting relation to the lower die. The forcible inserting of the wedge member also initially tends to rock the spring (in a clockwise direction in Figs. 2 or 10) so as to increase the upward bowing of the medial part U of the spring, and the resistance of that spring part to such an increased bowing presses the depending spring part 3 all the more firmly against the wedging member. Consequently, when the wedging member has been slid forward to the extent which the seal manufacturer considers advisable for the tensioning of the spring, this wedging member is pressed so firmly against the bottom of the frame that friction prevents it from sliding rearwardly. And when the free end of the spring has been sheared off even approximately squarely, this spring tip may have a sharp edge digging somewhat into the webs of the wedge member to enhance the latching.

To depress the upper die carrier U (along with the upper die mounted in that carrier) against the resistance of the spring, I provide a lever 9 of inverted U-shaped section and of slightly smaller spread than the interior spacing between the webs W and W1 of the frame of my seal press. This lever is pivoted near its forward end in the usual manner on a pivot pin P which extends transversely of the lever and the said frame webs both through the webs W and W1 of the frame and through the webs of the lever.

Spanning these lever webs somewhat rearwardly of the said pivot pin is an axle 10 upon which I journal a roller 11 seating continuously on the top of the riser stem 12 of the upper die carrier in the usual manner.

To latch the lever in its depressed position of Figs. 1 and 2, I provide a latch member 13 which is supported by the lever (with freedom for limited movement longitudinally of the lever) and housed by the forward portion of the lever at all times. This latch member desirably is of an inverted U-section slidably fitting into the forward portion of the lever and having its for-

ward end formed (as shown in Figs. 2 and 7) to conform to the forward end of the lever when the latch is retracted as shown in Fig. 2. Then I employ the pivot pin P as a stop for limiting the sliding movement of the latching member, which member is supported by a pin 14 extending upwardly through a longitudinal slot 15 in the top of the lever and through circular bore in a plate 16 which overlies the slotted top portion of the lever.

To limit the upward swinging of the lever and also to prevent the latch member from sliding out of its unlatched position when the lever is raised, I employ a stop pin 17 which spans the frame webs W and W^1 forwardly of the pivot pin P and which stop pin is parallel to the said pivot pin and also to the axle 10 on which the roller 11 is journaled. With this double function of the stop pin 17 in mind, I undercut the forward ends of both webs of the lever 9 to provide each of these webs with a downwardly facing shoulder 18 disposed for seating on the stop pin 17 when the lever has been swung upward to the desired limited extent, as shown in Fig. 4.

Then I also provide counterpart recesses 20 in the lower edge portions of each web of the latching member, as shown in Figs. 4 and 7, each of which recesses clears the pivot pin P, and has its forward end spaced from the lower forward end of the web by a distance somewhat shorter than the clear spacing between the stop pin 17 and the pivot pin P.

Thus arranged, the recesses provide each web of the latching member with a forward latch finger 13*a* (Figs. 4 and 7) adapted to be swung downward between the said stop pin and the pivot pin when the lever is nearing the raised position in which its web shoulders 18 engage the stop pin 17.

In addition, I preferably have each latch finger 13*a* depend somewhat below the level of the uppermost part of the stop pin 17, as shown in Fig. 11, when the lever has been depressed to the extent to which it will be limited when a sheet of paper is interposed between the two dies, thereby enabling the stop pin to prevent the latching member from sliding forwardly into its latching position if the seal is so held that the medial longitudinal line of its bottom slopes forwardly downward.

This proportioning of the forward part of the latching member allows the latching member to be loosely slidable on the lever, and hence easily movable digitably, and with this in mind I preferably make the rivet 14 (which supports the latching member from the upper slide plate 16 as shown in Fig. 4) of such a length that the top of the latching member will be spaced downwardly from the adjacent top part of the lever when the lever is unlatched, as also shown in Fig. 4.

When the seal is no longer to be used and the lever is depressed (as shown in Fig. 2) until the upper die seats on the lower die, the interengaging of the dies acts through the roller 11 to halt the lever in a position in which the forward end of each latch finger 13*a* is so slightly below the level of the uppermost part of the stop pin 17 that the latching member can be digitally slid forward, as the said vertical clearance between the top of the latching member and the lever permits the latch fingers of that member to slide up on the stop pin.

A relaxing of the pressure on the lever thereafter leaves this as in Fig. 2, namely with the two dies sufficiently interengaged to prevent dust from accumulating between them and with the slide of the latching arrangement raised slightly off the lever. The seal press is then firmly latched, but can instantly be unlatched by depressing the lever slightly further and digitally sliding the latching member rearwardly.

However, while I have heretofore described both features of my invention in connection with a type of seal adapted to be supported by the hand of a user while it is being manipulated, and as having a single-piece frame member, I do not wish to be limited to such an embodiment. Nor do I wish to be limited to the above described numerous details of construction and arrangement, since many changes might be made without departing either from the spirit of my invention or from the appended claims.

For example, if the longitudinal center line of the upper face of the frame bottom portion B^1 which underhangs the depending spring portion 3 slopes downward rearwardly as in Fig. 9 when the die faces are horizontal, the wedge member may present the main upper edge portions of its webs horizontally (or parallel to the face of the lower die) as in Fig. 9.

Likewise, the frame member of my seal-press may be constituted of a number of separately formed parts, as for example in Figs. 12 and 13. These two figures show a socalled "lever press" including a base presenting a horizontal platform 21 at higher elevation than a peripheral foot flange 22, and also including two parallel and upright frame sides 23 which are fastened to rearward parts of the said platform and between which frame sides the lever is pivoted. In this case, the top of the platform is flat, but a U-sectioned wedge member will still suffice when it has its lower part convexed downwardly so that it can rock to compensate for any irregularities which may occur during the manufacture of the seal press.

Compared with seal-presses now on the market and also employing die-lifting springs formed of flat metal, my here presented seal-press has these important advantages:

(*a*) The spring is not under tension when it is being inserted in the frame or body member, thereby decidedly facilitating the assembling and the disassembling.

(*b*) The spring tensioning member (here called a wedge member) requires no fastening screw to hold it in position.

(*c*) During its forward sliding, this wedge member tensions the spring while contracting the bore of the curled spring part and can only increase this tensioning until the said spring part tightly grips the shank of the spring-supporting screw. Consequently, I can readily predetermine the spring tension by suitably forming the spring and I require no tension-adjusting screw which might be adjusted improperly and also might work loose.

(*d*) No auxiliary spring is required to hold the latching member either in its latching position, or to hold it unlatched.

(*e*) This latching member does not project beyond the lever at any time and hence cannot injure the pocket of a user.

(*f*) The slide plate 16 can easily be reached by a finger of the same hand which manipulates the lever.

This application is a refiling of applicant's

abandoned application #706,051, filed January 10, 1934.

I claim as my invention:

1. In a seal-press, a frame including spaced upright sides and a bottom portion, a lower die supported by the body member, an upper companion die, a screw spanning the sides of the body member at a distance from the said dies; a spring formed of flat sheet metal and supporting the upper die; the spring including a portion curled incompletely around the shank of the said screw and also including a depending end portion having its tip spaced upwardly from the said bottom portion of the frame; and a wedge member slidable upon the said frame bottom portion and engaging the said tip of the spring with a lifting action so as to contract the curled spring portion diametrically and into gripping relation to the said shank of the screw, the wedge member having its upper portions in a plane which is at a forwardly open oblique angle to a face of the said depending end portion of the spring.

2. In a seal-press, an assemblage of elements as per claim 1, in which the curled spring portion is connected to the depending end portion of the spring disposed forwardly of the lower portion of the screw shank.

3. In a seal-press, an assemblage of elements as per claim 1, in which the lower face of the wedge member and the upper face of the adjacent part of the frame bottom are relatively convexed toward each other in transverse section, so as to permit the wedge member to rock sidewise upon the said adjacent frame bottom part.

4. In a seal-press, a body member of U-shaped cross-section presenting parallel riser walls each having its forward end forked, a lower die supported conjointly by the lower fork arms of the two walls; a cross-pin spanning the said walls and spaced rearwardly from the lower die; an upper die adapted to fit upon the lower die; a spring formed of flat resilient metal and including a forward portion supporting the upper die, the part of the spring rearward of the said die having at least a part thereof substantially equal in width to the spacing between the said walls so that the inner faces of these walls prevent lateral shifting of the spring with respect to the body member; the said rearward part of the spring also including a spring portion curled more than half way around the pin, and a depending rear end portion having its free end spaced upwardly from the upper face of the bottom of the U-sectioned body member; and a forwardly tapering wedge member interposed between the lower end of the said depending spring portion and the adjacent portion of the bottom of the body member, the wedge member being of less spread than the spacing between the said riser walls and having at its rear end a slot adapted to be entered by the tip of a tool used for sliding the wedge forwardly.

5. In a seal-press, an assemblage of elements as per claim 4, in which the wedge member is of a U-shaped section of smaller exterior spread than the spacing between the adjacent portions of the riser walls of the body member, and having the lower face of its U-bottom of smaller radius than the upper face of the adjacent bottom portion of the body member.

6. In a seal-press, a body member including two spaced and parallel upright walls, a lower die supported by the body member adjacent to the forward end of the said walls, an upper die member adapted to seat on the lower die, yielding means associated with the body member for normally raising the upper die off the lower die; a pivot pin spanning the portions of the said two riser walls forwardly of the axis of the lower die and at higher elevation than the upper die, a stop pin spanning the said two riser walls forwardly on the pivot pin, a lever member pivoted intermediate its ends on the pivot pin and adapted when depressed to move the said stem and the upper die downwardly; and a latching member supported by the lever member and slidable on the lever member longitudinally of the latter; the latching member having a forward portion adapted to depend behind the stop pin when the latching member is slid rearwards and the lever member is raised, and adapted to be slid over the stop pin when the latching member is slid forwardly after the lever member has been depressed sufficiently to bring the upper die closely adjacent to the lower die; the latching member having a shoulder portion continually disposed rearwardly of the pivot pin and adapted to engage the pivot pin when the latching member is slid forward, so as to limit the forward sliding of the latching member upon the lever member.

7. In a seal-press, an assemblage of elements as per claim 6, including means for suspending the latching member from the lever member with freedom for limited vertical movement so that gravity will cause the latching member to be spaced downwardly from the lever member when the lever member is raised.

8. In a seal-press, an assemblage of elements as per claim 6, including means for suspending the latching member from the lever member; the said suspending means being arranged so that gravity will cause the latching member to present its lower forward portions at an elevation slightly lower than the top of the said stop pin when the lever is depressed to its extreme extent.

9. In a seal-press, an assemblage of elements as per claim 6, in which the lever member has a longitudinal slot overlying the latching member; the seal-press including a slide plate normally seated on the lever member and overlying the said slot, and a rivet extending through the said slot and connecting the slide plate with the latching member.

10. In a seal-press, a body member including two parallel riser sides, a spring-supported die adjacent to the forward ends of the said riser sides, a pivot pin spanning the forward side end portions of the riser sides, a stop pin spanning the same side end portions forwardly of and parallel to the pivot pin, a die-depressing lever pivoted on the pivot pin and having a forward end portion disposed for engaging the stop pin when the lever is raised; and a latching member underhanging and supported by the forward end portion of the lever and slidable longitudinally of the lever, the latching member having at its forward end a finger adapted to depend between the upper portions of the said two fingers when the latching member is slid rearward and the lever is raised, the said finger being also adapted to slide forward upon the top of the stop pin when the lever is in its maximum die-depressing position and the latching member is then slid forward.

11. In a seal-press, a body member including two spaced and parallel upright walls, a lower die supported by the body member adjacent to the forward end of the said walls, an upper die member adapted to seat on the lower die, yielding means associated with the body member for

normally raising the upper die off the lower die; a pivot pin spanning the portions of the said two walls forwardly of the axis of the lower die and at higher elevation than the upper die; a stop pin spanning the said two riser walls forwardly of the pivot pin; a lever member pivoted intermediate its ends on the pivot pin and adapted when depressed to move the said stem and the upper die downwardly; and a latching member supported by and slidable on the lever member longitudinally of the latter; the latching member having a forward portion adapted to be slid over the stop pin when the latching member is slid forwardly after the lever member has been depressed sufficiently to bring the upper die closely adjacent to the lower die; the lever member having its forward portion of an inverted channel section, and the latching member being of an inverted channel section slidably fitting the interior of the upper part of the said forward portion of the lever member; each web of the latching member having its forward portion adapted to depend behind the stop pin when the latching member is slid rearwards and the lever member is raised; each web of the latching member also having a shoulder portion continually disposed rearwardly of the pivot pin, and adapted to engage the pivot pin when the latching member is slid forwardly, so as to limit the forward sliding of the latching member upon the lever member.

CHARLES PRIESMEYER.