Dec. 19, 1939. J. F. SHEPPARD ET AL 2,183,778

AUTOGRAPHIC REGISTER

Original Filed April 4, 1935 3 Sheets-Sheet 1

Fig. 1.

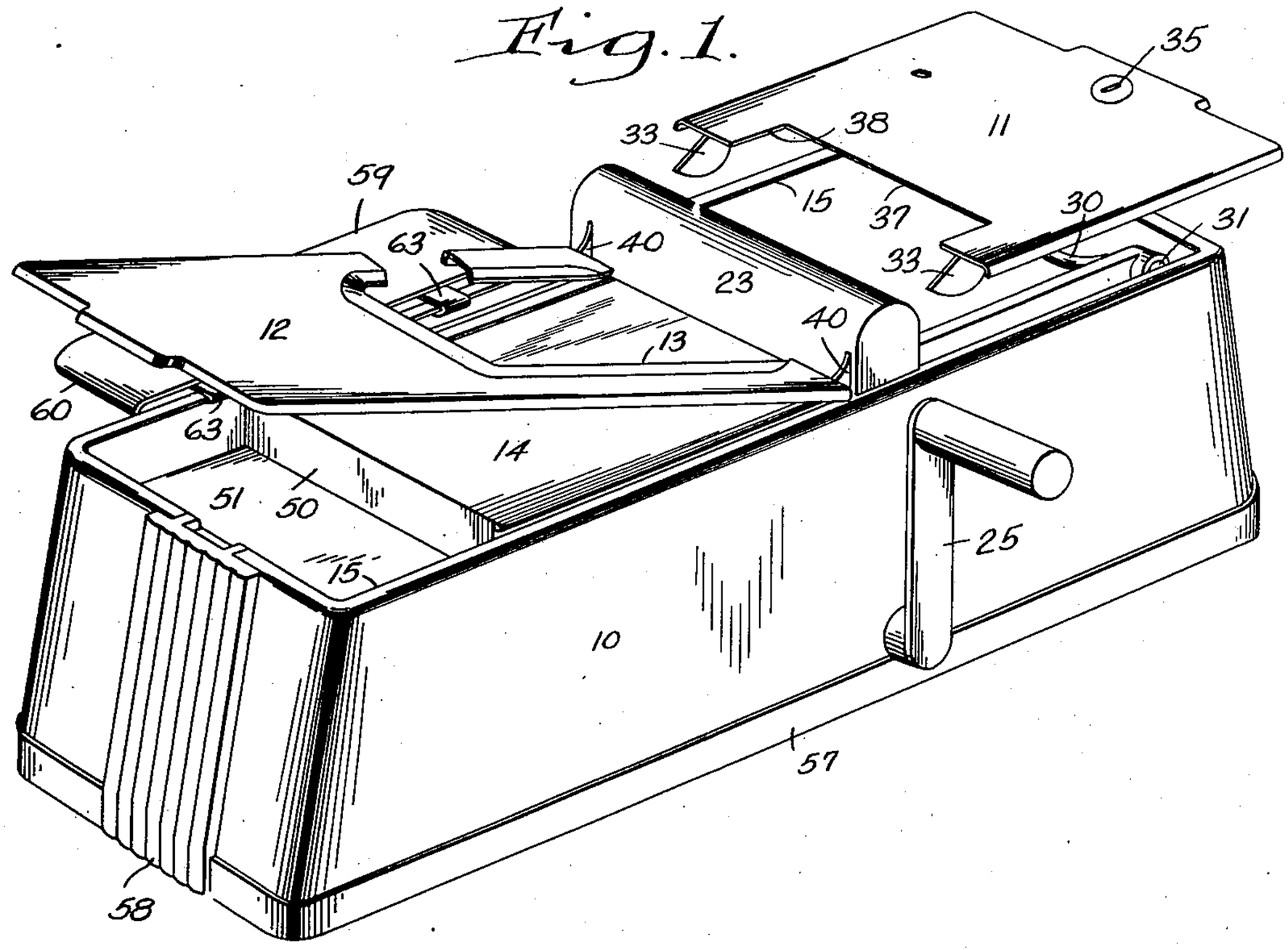
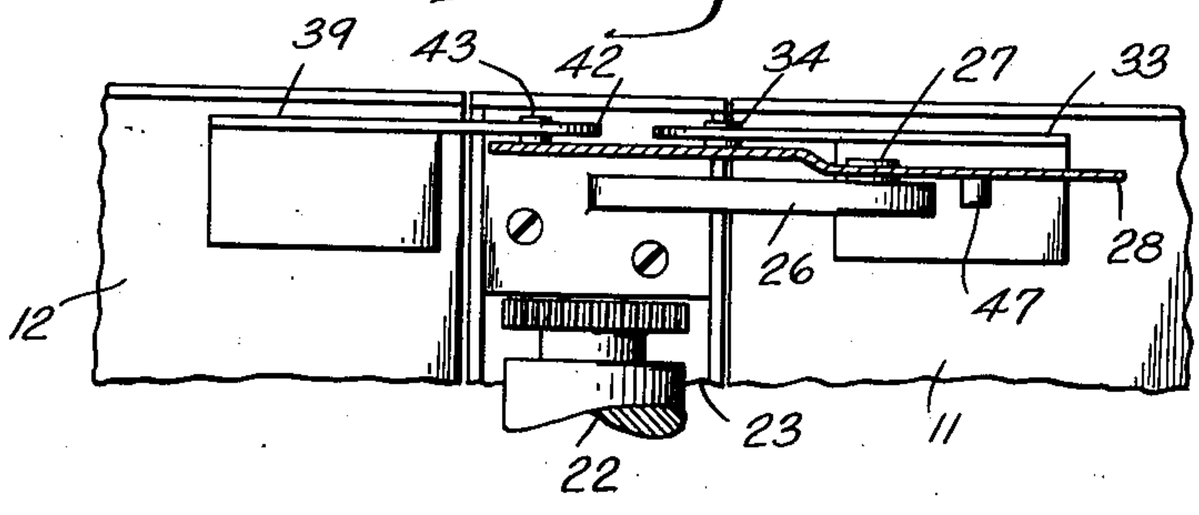


Fig. 5.



Inventors,
JOEL F. SHEPPARD
CHARLES J. MANUEL
WILLIAM A. PRINGLE DEC'D. BY HENRY DURK, EXECUTOR.
by Carl O. Weeks
Attorney

Dec. 19, 1939. J. F. SHEPPARD ET AL 2,183,778

AUTOGRAPHIC REGISTER

Original Filed April 4, 1935 3 Sheets-Sheet 2

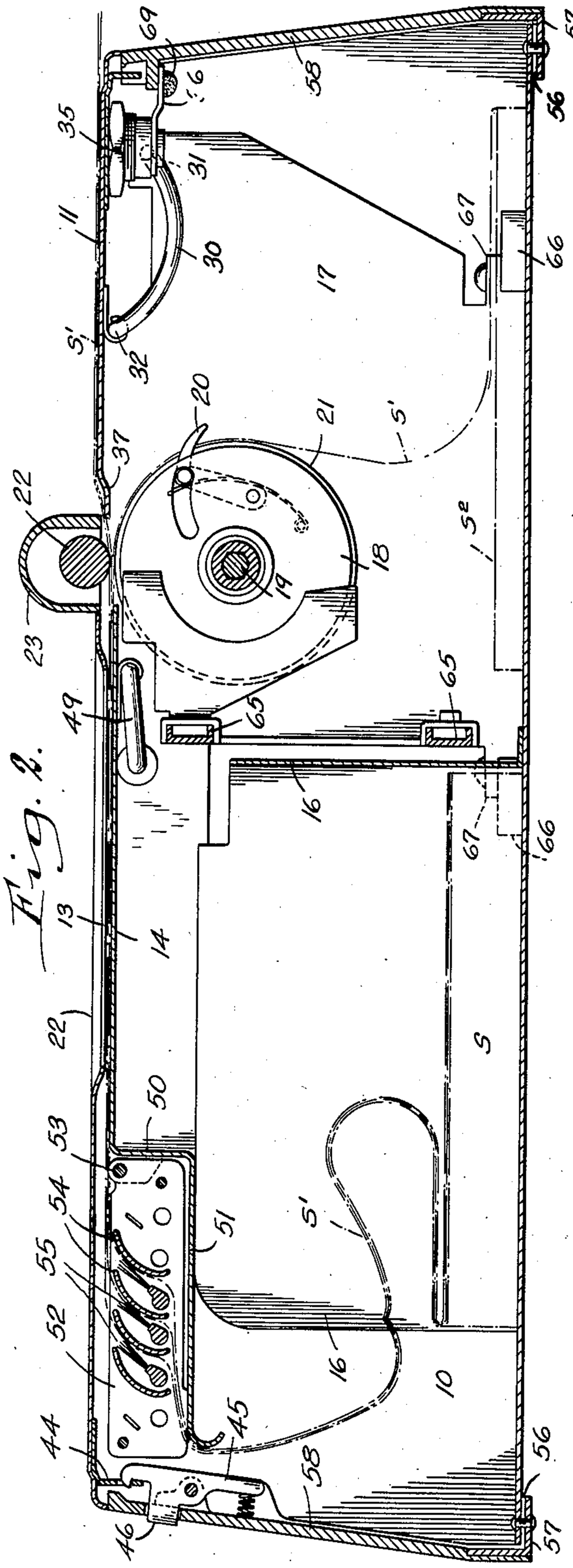


Fig. 2.

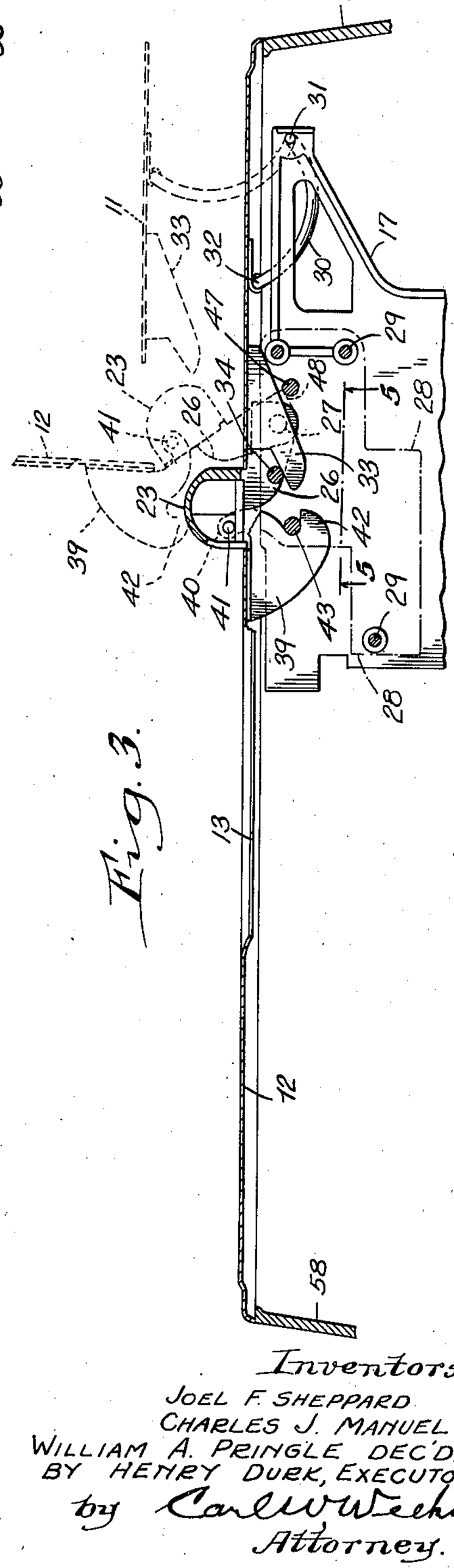


Fig. 3.

Inventors,
JOEL F. SHEPPARD
CHARLES J. MANUEL
WILLIAM A. PRINGLE DEC'D.
BY HENRY DURK, EXECUTOR
by Carl W. Weeks
Attorney.

Dec. 19, 1939. J. F. SHEPPARD ET AL 2,183,778

AUTOGRAPHIC REGISTER

Original Filed April 4, 1935 3 Sheets-Sheet 3

Fig. 4.

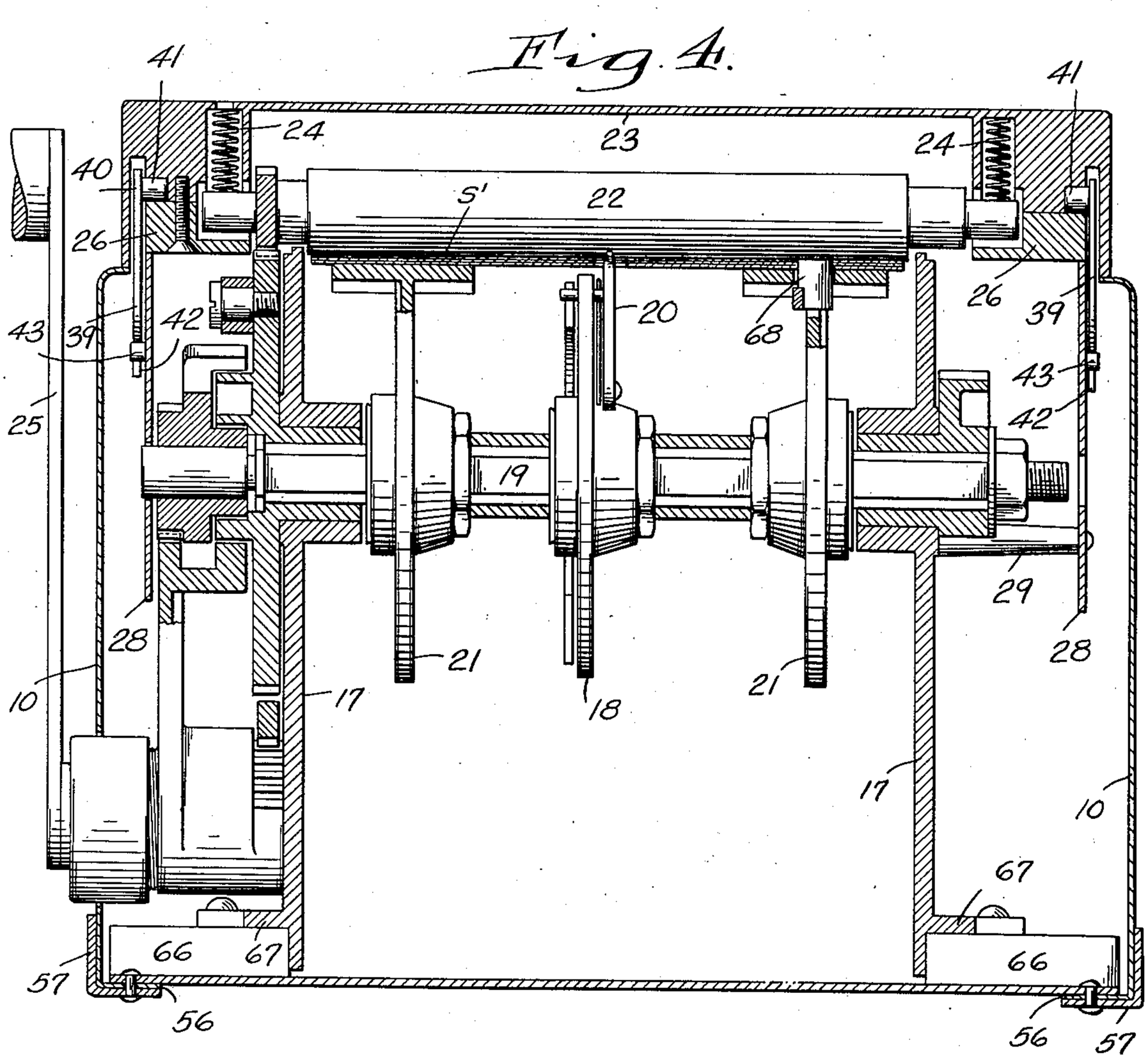
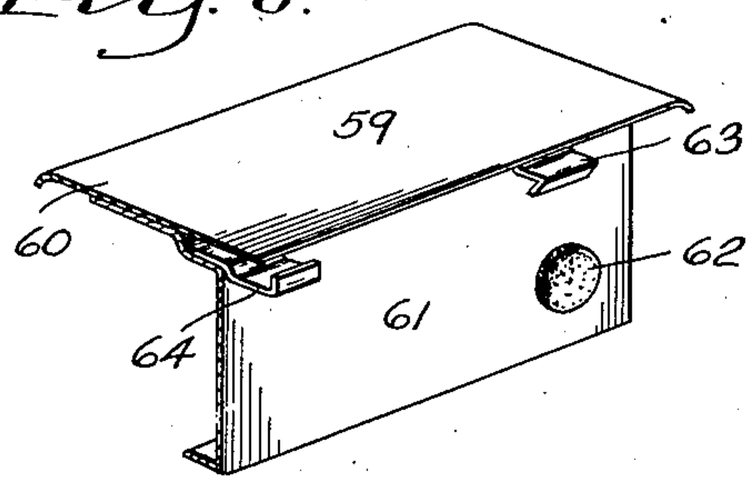


Fig. 6.



Inventors,
JOEL F. SHEPPARD
CHARLES J. MANUEL
WILLIAM A. PRINGLE, DEC'D. BY HENRY DURK, EXECUTOR.
by Carl W. Weeks,
Attorney

Patented Dec. 19, 1939 2,183,778

UNITED STATES PATENT OFFICE

2,183,778

AUTOGRAPHIC REGISTER

Joel F. Sheppard and Charles J. Manuel, Dover, N. H., and William A. Pringle, deceased, late of Niagara Falls, N. Y., by Henry Durk, executor, Niagara Falls, N. Y., assignors to American Sales Book Company, Inc., Niagara Falls, N. Y., a corporation of Delaware

Original application April 4, 1935, Serial No. 14,664. Divided and this application November 22, 1937, Serial No. 175,812

33 Claims. (Cl. 282—16)

This invention relates to improvements in writing machines of the type wherein record inscriptions made on an original record strip are transferred to one or more underlying record strips through the intermediary of transfer material such as carbon transfer sheets. While various features of the invention may be applied to writing machines of different types and design, they are herein disclosed as embodied in a machine of the autographic register type.

It is a general object of the invention to provide in machines of the class mentioned, an improved construction and arrangement not only facilitating and promoting the making of the record inscriptions and providing clear legible copies, but also facilitating the handling and loading of the record and transfer strip supplies, and in making adjustments thereof both before and after inscription.

Another object of the invention is to provide in machines of the class mentioned, an improved assembly of the strip feeding and controlling unit whereby the latter may be readily installed as a unitary assembly into the casing or housing of the machine, and similarly removed therefrom, thus greatly facilitating installation and adjustments.

Still another object is to provide in machines of the class mentioned, an improved assembly of the cover plates and feed mechanism, providing means whereby the record strips and transfer strips may be inserted and adjusted in operative position with a minimum of time and effort.

Still another object is to provide in machines of the class mentioned, an improved arrangement whereby the cover plate and the feed roll housing may be adjusted into open condition by a simple unitary movement thus exposing the operative elements for convenient access and permitting the strip adjustments or strip loading to be effected simply and with a saving of time and energy.

A further object is to provide in machines of the class mentioned an improved arrangement whereby one or more of the covers or cover plates are associated in a novel manner with the feed roll carrier which is thereby effectively held in operative position, or released for opening movement by movements of the cover or covers.

A further object of the invention is to provide an improved mounting for one of the covers of the machine whereby the cover may be bodily moved so as to completely expose the housing compartment, or is movable into closed position so as to maintain the roll carrier in operative position, locking means being preferably provided whereby the cover may be locked against unauthorized access to the machine compartment.

Still another object of the invention is to provide an improved mounting for the strip supporting writing platen whereby the latter may be quickly and easily moved from its operative position into a position exposing the feed mechanism for convenient access, and also providing for opening movement of the platen to uncover the record strip storage space, facilitating the insertion of new record supplies. When the platen is thus moved to expose the feed mechanism the record strips may then be conveniently manipulated or threaded into operative position with reference to the feed mechanism.

According to another feature of improvement the strip feed mechanism is so constructed and arranged in a unitary assembly that such mechanisms of different sizes for accommodation of different sized records may be installed and housed in casings of the same standard size and proportions, attaching means being provided for securing the different sized mechanisms in the casings of standard size.

According to another improved feature of the invention the frame carrying the feed mechanism and platen, together with a strip tensioning element and a cover are connected together so as to provide a unitary assembly removable as a unit from the machine casing and similarly installable therein.

Other objects of the invention will be in part pointed out in the following detailed description of certain illustrative but preferred embodiments of the invention, and will be in part obvious in connection therewith.

The invention accordingly comprises the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the claims.

For a more comprehensive understanding of the nature and objects of the invention reference should be had to the following detailed description of the illustrative preferred embodiments referred to, and to the accompanying drawings, in which,

Fig. 1 is a perspective view of an autographic register embodying the improvements of the invention, the covers being partially opened;

Fig. 2 is a longitudinal vertical section of the register shown in Fig. 1, parts of the inner mechanism being shown in elevation;

Fig. 3 is a fragmentary longitudinal vertical

sectional elevation showing details of the mounting of the forward and rearward covers, and of the feed roll carrier or housing;

Fig. 4 is a transverse vertical section of the machine taken at the plane of the main feed shaft, showing in detail certain features of the construction;

Fig. 5 is a fragmentary inverted plan view, parts being removed and other parts in section, substantially on the line 5—5 of Fig. 3 looking in the direction of the arrows and showing details of the mounting of the forward and rearward covers, and

Fig. 6 is a detailed sectional perspective view of the hand rest.

Since the subject matter of this application is disclosed in applicants' prior copending application Serial No. 14,664, filed April 4, 1935, the present application is a division of said prior application.

Referring to the drawings for a detailed description of the illustrative embodiment, a machine of the autographic register type is shown having a casing 10 provided with bottom, side and end walls and having a forward or front cover plate 11 and a rearward cover plate 12. The rear cover plate provides a margin frame and is formed with an opening 13 through which inscription entries may be made upon the record strips exposed through said opening. Underlying the cover plate 12 is the platen or platen plate 14 which is formed by a flat plate preferably of metal and is of novel structure and specially mounted on the machine as later fully described. The casing is also preferably constructed of sheet material, such as sheet metal, and an inwardly turned flange 15 extends around the upper edges of the end and side walls, providing a reenforcement. For convenience in the description, the right end of the machine, as shown in Fig. 1, is regarded as the forward end, while the rearward end is at the left in the same figure.

As shown in Fig. 2, the casing has a rearwardly disposed interior compartment for housing and supporting the record supply. While different forms of record supply may be used, it is preferred to employ a flat pad or packet S formed by reversely folding the record strips S' in zigzag form. This supply pad, on account of its compactness and shape, has advantages over other forms of supply and the machine disclosed is well adapted for using this form of supply.

There may be as many record strips as desired arranged in superposed manifolding relation with each other, and led from the supply compartment into writing position upon the platen 14. Each record strip will be provided with appropriate blank forms spaced therealong and with weakened severance lines dividing it into a series of form sheets, each provided with one of the blank forms. Also each record strip is provided with feed-controlling apertures arranged in one or more longitudinal series in the strip and preferably formed near one end of each of the form sheets. A file record strip is also provided with filing or fold-directing apertures arranged in a series therealong and positioned only in alternate form sheets. The file strip is used for filing in a secret locked compartment of the machine maintained inaccessible to unauthorized persons. This filing compartment, as shown in Fig. 2, is at the forward end of the machine and the file strip S' is shown as folded therein in a zig-zag file packet S^2.

Within the casing at the rearward part thereof are upstanding partition plates 16 attached to the casing bottom and providing side walls and a front end wall for the supply housing compartment. The rear end of the compartment may have an opening, as shown, through which the record strips emerge in their passage to the platen. The side walls 16 of this compartment also provide supports for the platen 14, the rearward end portion thereof normally resting upon the upper edges of these plates, as shown in Fig. 2.

Strip-feeding mechanism is housed within the casing, and as shown in Fig. 4, is mounted in a unitary frame 17 preferably having laterally spaced frame members in which the elements of the feed mechanism are mounted. The unitary frame, as later more fully described, is constructed and arranged to be inserted in the casing as a unit, together with the feed mechanism and certain other elements, and similarly removed therefrom.

The file strip S' is directed and folded within the file compartment by means of a mechanism associated with the strip feed. As shown in Figs. 2, and 4, this filing apparatus includes a circular disk 18 secured in position upon the main feed shaft 19 so as to rotate therewith. Pivoted upon this disk is a folding finger or hook 20. Since the strip-folding mechanism and the operation thereof are generally set forth in the Johnston Patent No. 1,658,127 issued February 7, 1928, further description herein is deemed unnecessary.

As mentioned above, the strip-feeding mechanism is mounted in a supporting frame 17 to form a strip-feeding unit. The details of the illustrative embodiment of this feeding device are best shown in Figs. 2 and 4. The main feed shaft 19 which is preferably hexagonal, or of the other non-circular form in cross-section, is rotatably mounted in the frame 17 by means of bearings. Strip-feed friction disks 21 are fixed upon the feed shaft so as to rotate with the latter, having their circular peripheries in friction-gripping relation with a feed roll 22 rotatably mounted in a carrier 23 which also serves as a housing for the feed roll. Springs 24 are mounted in the housing normally yieldingly urging the feed roll toward the feed disks so as to yieldingly grip the record strips between the roll and disks.

It will thus be seen that rotation of the feed disks will cause the strips to be fed forwardly until the disk peripheries engage in the feed-controlling apertures, whereupon strip-feed will be checked and the strips aligned, as fully set forth in detail in the Johnston patent referred to. A main operating handle 25 of the swinging or oscillating lever type is operatively connected to the feed shaft 19 as fully described in said copending application Serial No. 14,664. The construction and operation of the feed mechanism need not be further described herein in detail.

As mentioned above, the front casing cover 11, the rear cover 12, and the platen 14 are all attached to the frame 17 in which the feeding mechanism is mounted, and the feed roll carrier or housing 23 is also attached to the frame. This structure is best shown in Figs. 2, 3, 4 and 5.

For the purpose of mounting the feed roll carrier, whereby the feed roll 22 may be set into operative position for feeding the strips, and whereby it may be moved to open the strip-feeding grip upon the strips, a special novel and advantageous structure has been devised. As herein shown, there is attached to each of the opposite ends of the roll carrier 23 a carrier support-

ing arm 26 each extending forwardly of the frame a short distance from the carrier and being pivoted to the frame by a pivotal mounting 27. The upper surfaces of each of these supporting arms 26 lie substantially flush with the under surface of the cover plate 11 whereby said plate, when in closed position, engages the arms so as to hold the roll carrier in its closed or operative position.

Metallic supporting plates 28 are provided for the purpose of supporting the feed roll carrier and covers upon the frame, one such plate being spaced outwardly a short distance from each side of the main supporting frame 17 and being supported by said frame by means of supporting studs 29 which may be arranged in any appropriate manner, either being integral with the frame 17 or otherwise appropriately attached thereto. The supporting arms for the roll carrier are thus pivoted through the pivotal supports 27 anchored in these opposite supporting plates 28.

Cover supporting links 30 are pivoted at the lower or inner ends thereof, as at 31, to the frame 17 and are pivoted at their outer ends, as at 32, to brackets attached to the inner surface of the cover 11. The upper or cover-attached ends of the mounting links 30 are preferably rigidly connected together, this being accomplished in the embodiment shown by means of a bar extending between the upper ends of the links and formed integrally with the latter. Both links 30 are thus constrained to move in unison and lateral or twisting movements of the cover are avoided. When the cover is in closed position, as shown in Fig. 2, it will be noticed that the pivotal connections of the links 30 with the frame are positioned forwardly of the pivotal connections 32 with the cover. This mounting provides for a wide translating movement of the cover in its opening direction, whereby the cover may be moved completely to non-obstructing position with the opening leading to the filing compartment.

At or near its rearward end, the cover 11 is provided with downwardly depending brackets 33 forming cover-locking lugs having upper edge surfaces engageable with locking studs 34 mounted on the supporting plates 28. (See Figs. 3 and 5). Thus, it will be seen that when the cover 11 is moved into position to close the file compartment, it is translated bodily in a rearward direction, the locking or retaining lugs 33 engaging beneath the studs 34 so as to hold the cover securely against upward movement. In this position, the rearward edge of the cover engages with the upper surfaces of the housing supporting arms 26, thus maintaining the roll housing in its closed operative position.

Mounted at the forward end of the cover 11 and projecting from the inner surface thereof, is a lock 35 having a swinging locking bolt 36 positioned for engagement with a shoulder on the inner surface of the adjacent end wall of the casing. A key may be inserted into the lock from the outside of the cover for swinging the locking bolt 36 into locking or releasing positions. In this manner the cover 11 may be securely locked in closed position against unauthorized access to the strip file compartment. The inscribed file-strip may thus be preserved indefinitely as required against unauthorized tampering. It will be noticed, furthermore, that the roll housing will be locked in closed position by locking of the cover, thus preventing tampering of the file strip by way of the feed mechanism which might otherwise be done by raising the roll housing.

Attached to the frame 17 (see Figs. 1 and 2) is a strip deflector plate 37 having its forward edge positioned close to the exit point of the strip-feed mechanism, whereby strips placed above said plate are issued outside of the casing upon the cover 11, whereas the file strip is entered beneath said deflector plate and is projected into the filing housing and filed into folded position by the folding mechanism above described. This deflector plate is normally seated within a recess 38 formed at the rearward edge of the cover 11, thus preserving the upper surface of the casing in a smooth and continuous condition.

It will be noted that the roll carrier 23 and forward cover 11 are mounted upon the interior supporting frame 17 and are free from direct supporting connection with the outer casing or housing. The rear cover plate 12 similarly has its supporting connection with the interior frame 17. This mounting of the cover 12, as best seen in Figs. 3, 4 and 5, is formed through brackets 39 attached to the lower face of the forward end of the cover, and each being provided with a supporting arm 40 extending upwardly and pivotally attached at 41 to the adjacent end of the roll housing. The supporting arms 40 are positioned just forwardly of the cover 12 whereby the cover may be swung upwardly from its closed position upon the pivots 41. Each of the brackets 39 has a downwardly disposed hooked extension 42 providing a latch or lock engageable with an adjacent locking lug 43 anchored in the corresponding frame member or supporting plate 28. Thus when the cover is swung downwardly on its supporting pivot 41, the latches 42 engage with the lugs 43, thus not only locking the cover firmly in its closed position, but at the same time securing the roll housing 23 in its operative position, and supplementing the forward holding device 33 above described.

Both cover plates 11 and 12 in their closed positions, as shown in Figs. 1 and 3, lie close to, or they may contact with, the upper edges of the end and side walls of the casing, preferably as shown having down-turned marginal flanges positioned for close association or engagement with the casing and being substantially flush with the outer surfaces thereof.

At or near its rearward terminal, the cover plate 12 carries a latching plate 44 attached to the inner face thereof, cooperating with a latch lever 45 pivotally mounted on the end wall of the casing and normally urged by a spring into latching engagement with the plate 44 so as to retain the cover in closed position. The latch lever 45 may be manually released by pressure upon an operating button 46 projecting through an aperture in the rear casing wall.

As shown in Figs. 3 and 5, stop lugs 47 are mounted upon the frame plates 28 adjacent to the forward ends of the housing supporting arm 26. Also, each supporting arm has a shoulder 48 positioned for engagement with the lug 47 when the roll housing is pivotally swung upwardly into position to open the feeding grip. In this manner the upward swinging movement of the roll housing is limited by engagement of the shoulders 48 against the stop lugs 47 and the roll housing thus supported in its raised position.

The platen plate 14 is also directly movably attached to the frame 17 for movements relatively to the latter in a manner similar to the mountings of the forward and rearward covers

and of the roll housing 23. In the present embodiment, as best shown in Figs. 1 and 2, this platen connection includes supporting links 49 pivotally connected to the under side of the forward end of the platen, as by appropriate straps or brackets and being pivotally connected at their opposite ends to the rearward part of the frame 17. Two of these supporting links 49 are rigidly connected together by a bar extending transversely of the under side of the platen plate. As shown, this rigid connection is conveniently formed by bending the ends of a metallic bar substantially at right angles to the connecting bar which is attached to the cover by the brackets. At its forward end the platen plate rests upon the upper edge of the frame members 17 (see Fig. 2) so as to support the platen at this end in its operative position. This link connection provides for rearward translatory movement of the platen from its operative position.

Toward its rearward part, the platen plate is deflected or bent downwardly to provide a flange or vertical wall 50. This deflected portion of the plate is bent rearwardly to form the lower wall 51 which may be rounded at its rearward end to provide a smooth guiding surface for the record strips in their passage to the platen from the supply compartment. These bent or offset plates 50, 51 provide a recess or seat in which a strip-tensioning and smoothing device 52 is mounted. While the strip-tensioning device may be of different preferred types of construction, that shown is especially effective embodying longitudinal frame members pivotally mounted upon the platen structure at 53 so as to be swung upwardly into strip-loading position from the normal operative position shown in Fig. 2. Strip-guiding plates 54 extend transversely between the longitudinal side frame members being curved as shown to provide smooth guiding surfaces for the advancing strips, one strip passing over and being guided by each bar 54. Resilient strip-engaging members 55 engage with the respective guide bars so as to exert a frictional guiding and smoothing action upon the strips. The resilient strip-controlling members 55 are preferably in the form of filamentary bundles of bristles or the like mounted in supporting bars which are preferably mounted in the frame for movement so as to varv the strip-tensioning action.

In its operative position, as shown in Fig. 2, the downwardly offset plate 51 rests upon the upper edges of the supply housing walls 16 so as to support the rearward end of the platen structure in its normal operative position.

As best shown in Figs. 2 and 4, the lower edge portions of the end and side walls of the casing are inwardly turned or flanged to form supporting flanges 56 engaging under the bottom plate of the casing which may be of slightly heavier metallic plate than the side and end walls. Outer supporting and rigidifying angle bars 57 overlap the lower edges of the end and side walls and the outer edges of the bottom plate, both the vertical and horizontal flanges of the angle bar being attached to the casing plates by riveting, spot welding, or by other preferred connecting means. The angle bars, as shown in Fig. 1, are preferably bent at the corners of the casing, terminating at the casing ends adjacent to rigidifying and finishing end frame members 58. These end frame members are preferably of somewhat heavier material than the casing walls and the adjacent ends of the casing plates are attached thereto in any appropriate manner, such as by screws, bolts, rivets or spot welding. Also the end frame members 58 may, as shown, be of exterior ornamental design and they are arranged in upright position across the opposite ends of the casing, thus providing supporting frame members therefor with which the inturned ends of the casing plates overlap. The cover latch 45 is mounted upon the rearward end frame member 58. The ends of the angle bars 57 overlap the end frame members 58 to which they are preferably secured. This structure provides a light but relatively rigid casing for the machine which is neat in appearance and inexpensive in production costs.

As best shown in Figs. 1 and 6, a hand or arm rest 59 of appropriate size and proportions is mounted at one side of the casing near the writing opening 13 in the cover plate 12, and functioning as a guide and support for the operator's hand during entry of inscription. This hand rest has an upper marginally flanged plate 60 with its upper surface substantially flush with the top surface of the cover plate and being supported by a bracket plate 61 welded or otherwise attached to the top plate and extending downwardly along the outer face of the casing, and preferably having cushioning pads 62 attached to its surface and bearing against the casing. Attached at the upper part of the supporting bracket are one or more metallic supporting clips 63, each having a downturned flange adapted to engage or hook over the inwardly turned flange 15 of the casing. Also, the bracket is provided with an additional supporting clip 64 spaced from the others and having an upwardly directed terminal flange positioned for engaging or hooking over the down-turned marginal flange of the cover 12 when the latter is in closed position.

When the cover is raised, the hand rest is not disturbed but the cover flange moves from engaging position with the supporting clip 64, whereupon the other supporting clips alone form the support for the bracket. When the cover is thus raised, the hand rest may be readily adjusted from one position to another or from one side of the register casing to the other side thereof, the adjustment or detachment being quickly and easily accomplished by simple movements of the rest. When the cover is closed, the engagement of the cover flange with the upwardly directed flange of the supporting clip 64 not only locks the arm rest in position, but functions to reenforce and brace the rest in its attached position. Thus a bracket of simple but effective structure is formed which is readily attached or detached from the machine or adjusted thereon, and at the same time is relatively inexpensive to manufacture.

As previously mentioned, the main frame for supporting the operative mechanism is of a unitary structure adapted to be bodily inserted in housed position within the casing, and similarly removed therefrom. It will now be seen that the casing structure may be relatively light since the operative elements are not directly attached thereto. It may be said that in one sense the casing is supported by the main frame rather than providing a support for the latter. It will be seen, furthermore, that the cover elements 11, 12 and the platen element 14 may be removed from the casing as a unit together with the main operating frame 17 to which they are attached. Assembly and disassembly of the parts are thus greatly facilitated, and inspection of the various elements made easy. While two main frame side

elements 17 are herein disclosed, this structure may be varied while preserving its unitary nature. Structural cross frame members 65 extend between the side frame members 17 being attached to the latter and functioning to brace and support the side frame members in spaced relation.

Supporting pads or blocks 66 are attached to the bottom casing plate within the casing and may be of any appropriate material, such as metal, wood, rubber, etc. The supporting blocks are attached in spaced relation to the bottom plate so as to align in supporting relation with supporting brackets 67 attached to the frame 17. The supporting blocks 66 are provided with threaded apertures whereby screws or bolts passing through the supporting brackets may be inserted for attaching the frame in operative position within the casing.

From the foregoing, it will be seen that frame units 17 of different sizes may be installed in the same standard casing, it being necessary only properly to space the supporting blocks 66 for accommodating the different sizes of frame units, and to provide cover plates 11 and 12 of appropriate size. Also, feeding mechanism for feeding different widths of record strips may be mounted in side frame members 17 of a given standard size, it being necessary for this purpose only to provide feed shafts of the appropriate length, and cross frame members 65 of appropriate length to support the side frame elements 17 with the required spacing.

It will be understood that an appropriate carbon or transfer strip supply will be provided for interleavement with the record strips over the writing platen 14. Such transfer strips, in so far as the present invention is concerned, may be supported in any desired or preferred manner. For example, a roll of transfer material may be supported at one longitudinal edge of the platen 14 within the casing, the carbon strip or strips being extensible from the roll supply across the platen and supported at the edge thereof opposite to the roll by an appropriate clamping means.

It will now be seen that the covers 11 and 12, the feed roll housing 23 and the platen plate 14 may be readily adjusted to different positions to facilitate handling and adjustments of the record and transfer strips and for threading said strips into operative position over the platen and into the feeding mechanism. When it is desired initially to load the record strip supply pad S into the compartment therefor, the cover 12 will first be raised by swinging it upwardly upon its pivotal mounting 41, the lock 35 having first been released, and the cover 11 retracted from holding engagement with the roll supporting arms 26. During this initial swinging movement of the cover 12, the locking lugs 42 will be disengaged from the shoulders 43, thus releasing the roll carrier 23 to upward swinging movement. Upon continued swinging movement of the cover 12 in opening direction, the upper surface thereof will engage with the outer surface of the roll housing, whereupon the continued movement of the cover will cause the said housing to be swung upon its supporting arms 26 into position to open the strip-feeding grip between the peripheries of the feed disks 21 and the feed roll 22. This movement of the cover and roll housing is checked and the housing and cover supported in open position by engagement with the stops 47 of the supporting shoulders 48 formed on the housing supporting arms 26. It is to be observed that the cover 12 may be raised to expose the platen and record strips, even though the cover 11 remains in closed position, but in this case the roll housing may not be lifted because of the locking effect of the cover plate 11 above described. When the cover plate 12 alone has been opened as described, or when both cover plate and roll housing are opened, (see Fig. 3) the movement thereof in either case in a forward direction is sufficient to cause the center of gravity to pass forwardly beyond the pivotal point 41 or beyond the pivotal point 27, so that the cover, or the combined cover and roll housing are maintained in open position by gravity.

When the cover 12 has been raised as described, and whether or not the roll housing has also been raised, the platen 14 will be uncovered and rendered accessible, whereupon it may be raised at its rearward extremity so as to clear the casing walls and then translated rearwardly by virtue of the swinging action of the mounting links 49. The platen structure may then be allowed to rest upon the upper edge of the rear wall of the casing, whereupon the record strips S' can very easily be threaded into position in the strip-tensioning device 52, which may be swung upwardly on its pivotal support 53 in order further to facilitate the threading operation. This tensioning device may operate upon the broad principle disclosed in the Hagemann Patent No. 1,804,608, Strip aligning apparatus for manifolding record machines, issued May 12, 1931.

Having been threaded through the strip-tensioning device, the record strips are then pulled forwardly over the writing platen and entered into the feed grip of the feeding mechanism. If the roll housing has been raised as described, the strip-feed grip is wide open and the feed mechanism rendered easily accessible, whereupon the feed controlling apertures at the forward ends of the strips may be threaded one at a time upon the pin 68 (Fig. 4), which at this time projects into the strip path by virtue of appropriate projective mechanism, such as shown for example in said copending parent application. The record strips are thus guided and held in correct position both longitudinally and laterally thereof. At the same time, the lower or file strip may be entered beneath the deflector plate 37 so as to be directed and folded into the file compartment, while the remaining or upper strips are entered above said deflector plate to be issued outside of the front cover plate 11. The platen assembly 14 may be returned to its normal operative position either before or after threading of the strips over the pin 68. When the strips are thus threaded into position, the cover plate 12 may then be swung rearwardly into its closed position, and if the roll housing has been raised, it will at the same time be moved into its closed or operative position. As the cover 12 approaches its final closed position, the locking lugs or brackets 39 engage with the locking shoulders 43 to force the housing into its final closed position and to hold it against the compression of the roll springs 24. The friction feed grip upon the strips is thus established. If the roll carrier 23 has not been raised for threading the record strips into position, the feed grip will nevertheless be rendered easily accessible by reason of the fact that the platen plate 14 can be translated rearwardly away from the feeding mechanism as described.

When it is desired to open the file compartment cover 11, the lock 35 is released, whereupon the cover may be swung and translated forwardly by virtue of the mounting links 30. In this manner

the cover has a wide range of movement so as to completely uncover the file compartment and to render the contents thereof freely accessible. It will be noted that the roll housing is held firmly in closed or operative position, even when the cover 11 is opened, by virtue of the action of the locking lugs 42 of the cover 12, as already described. In other words, each of the covers is adapted to control securing means for holding the roll housing in closed operative position and the roll is doubly secured in place. The locking bolt 36 of the cover 11 may be provided with a soft, resilient bumper 69 for cushioning engagement thereof with the outer surface of the end wall casing when the cover is swung into open position.

When the strips have been loaded into the feeding mechanism as above described, the machine is ready for receiving inscription entries, and following the complete inscription of a set of form sheets the strip-feeding mechanism may be operated to advance a fresh set of forms into inscription position.

When the inscribed record sheets have been fully fed forwardly over the cover 11 as described, they may be severed from the strips in any desired manner, as by severing them along the transverse weakened lines of the strips or by exerting a tearing pull on the strips against the lower forward edge of the roll housing.

Since certain changes may be made in the above construction and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

Having described our invention, what we claim as new and desire to secure by Letters Patent is:

1. In a machine of the character described, in combination, a feed roll carrier, means movably mounting said carrier on the machine for movement to and from operative position, and a cover for the machine pivoted to said carrier.

2. In a machine of the character described, in combination, a feed roll carrier, means movably mounting said carrier on the machine for movement to and from operative position, a cover for the machine pivoted to said carrier, and means for holding said carrier in operative position and connected for operation by movement of said cover.

3. In a machine of the character described, in combination, a feed roll carrier, means movably mounting said carrier on the machine for movement to and from operative position, a cover positioned forwardly of said carrier, a cover positioned rearwardly of said carrier, a plurality of holding devices for holding said carrier in operative position, and means whereby movement of each of said covers to closed position sets one of said holding devices in carrier-holding position.

4. In a machine of the character described, in combination, a frame including two spaced frame members in which strip feeding mechanism is mounted, a supporting plate spaced outwardly from each of said frame members and attached thereto, a feed roll carrier pivoted to said supporting plates, a shoulder on each of said plates, a cover mounted for opening and closing movements, and holding lugs controlled by cover movements and cooperating with said shoulders for holding said carrier in operative position.

5. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, means for attaching said frame in operative position in said casing, a strip supporting platen permanently attached to said frame and removable therewith as a unit from the casing, and a platen support attached to said casing and cooperating to support the platen in operative position when installed in the casing.

6. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, means for attaching said frame in operative position in said casing, storage compartments one forwardly and one rearwardly of said feeding mechanism, and a separate cover for each of said compartments movably connected to said frame and removable therewith as a unit from the casing.

7. In a machine of the character described, in combination, a casing for the operative mechanism of the machine and having a side wall, a cover having a writing opening and mounted for opening and closing movements, and a bracket hand rest having one or more supporting lugs each having a downwardly extending flange, said side wall having at its upper edge an inwardly disposed flange positioned for engagement with the lug flange for detachably holding the rest in operative position near to said writing opening, said cover having a downwardly disposed marginal flange, and an additional supporting lug attached to said bracket rest and having an upwardly disposed flange positioned for engagement with said cover flange whereby said cover when closed locks the bracket rest in attached position.

8. In a machine of the character described, in combination, a casing in which record strip feeding mechanism is mounted, said casing having a bottom plate and side wall plates, said side wall plates being bent toward each other to form portions of an end wall plate, a rigid end frame member extending in upright position across an end of the casing to which the inner adjacent end portions of said bent wall plates are attached, and a reenforcing and finishing angle member at the base of the casing and having flanges overlapping the lower edges of the wall plates and the outer edges of the bottom plate and attached to the latter.

9. In a machine of the character described, in combination, strip feeding mechanism including a strip-gripping feed roll, a carrier for said feed roll, a pivotal mounting on the machine for said carrier, a cover for the machine, and a pivotal mounting for said cover connected to said carrier.

10. In a machine of the character described, in combination, strip feeding mechanism including a strip-gripping feed roll, a carrier for said feed roll, means for mounting said carrier on the machine for movement from strip-gripping position, a movably mounted cover for the strips, and operative connection between said cover and carrier for moving said carrier away from strip-gripping position by movement of said cover to uncover the strips.

11. In a machine of the character described, in combination, strip feeding mechanism including a strip-gripping feed roll, a carrier for said feed roll, means for mounting said carrier on the machine for movement from strip-gripping position, a movably mounted cover for the strips, means for moving said carrier away from strip-gripping position by movement of said cover to uncover the strips, a holding lug mounted on said cover, and a shoulder engageable with said lug when the cover is moved into closed position so as to hold the carrier in operative position.

12. In a machine of the character described, in combination, strip feeding mechanism including a strip-gripping feed roll, a carrier for said feed roll, means for mounting said carrier on the machine for movement from strip-gripping position, a movably mounted cover for the strips, operative connection between said cover and carrier for moving said carrier away from strip-gripping position by movement of said cover to uncover the strips, a second cover positioned forwardly of said carrier, and holding means for said carrier operatively connected to said second cover so as to hold the carrier in operative position when the latter cover is closed.

13. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, means for attaching said frame in operative position in said casing, and a strip supporting platen permanently attached to said frame and removable from the casing as a unit with the frame.

14. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, means for attaching said frame in operative position in said casing, and a platen and a casing cover, both having permanent connection to said frame and removable as a unit therewith from the casing.

15. In a machine of the character described, in combination, a casing for the operative mechanism of the machine and having a side wall, a cover having a writing opening and mounted for opening and closing movements, a bracket hand rest having one or more supporting lugs adapted to engage the side walls for detachably mounting the bracket rest in operative position near to said writing opening, and means whereby closing of said cover locks said bracket rest in attached position.

16. In a machine of the character described, in combination, strip feeding mechanism including a strip-gripping feed roll, a carrier for said feed roll, a pivotal mounting for said carrier, a cover for the machine, and a pivotal mounting for said cover connected to said carrier, both of said pivotal mountings being positioned to provide for pivotal movements in opening direction for both the cover and carrier.

17. In a machine of the character described, in combination, strip feeding mechanism including a strip gripping feed roll, a carrier for said feed roll, means for mounting said carrier for movement from strip gripping position, a movably mounted cover for the strips, operative connection between said cover and carrier for moving said carrier away from strip gripping position by movement of said cover to uncover the strips, and means operatively connected to said cover and cooperating through said operative connection for holding said carrier and roll in operative strip feeding position.

18. In a machine of the character described, in combination, strip feeding mechanism including a strip gripping feed roll, a carrier for said feed roll, means for mounting said carrier for movement from strip gripping position, a movably mounted cover for the strips, operative connection between said cover and carrier for moving said carrier away from strip gripping position by movement of said cover to uncover the strips, means operatively connected to said cover and cooperating through said operative connection for holding said carrier and roll in operative strip feeding position, a second cover positioned forwardly of said carrier, and holding means for said roll carrier operatively connected to said second cover so as to hold the carrier in operative position when the latter cover is closed.

19. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, means for attaching said frame in operative position in said casing, a strip supporting platen permanently attached to said frame and removable from the casing as a unit with the frame, and means whereby said platen is movable into position to facilitate loading of the strips into operative position.

20. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, said feeding mechanism including a feed roll carrier movably connected to said frame, and a casing cover pivotally connected to said roll carrier.

21. In a machine of the character described, in combination, a feed roll carrier, means for movably mounting said carrier for movement to and from operative position, a cover for strips fed in the machine pivoted to said carrier, a holding lug on said cover near its connection with said carrier, and a shoulder on the machine engaging with said lug when said cover moves on its pivot into closed position so as to retain both the carrier and cover in operative position.

22. In a machine of the character described, in combination, strip feeding mechanism including a strip gripping feed roll, a carrier for said feed roll, means for mounting said carrier for movement from strip-gripping position, a movably mounted cover for the strips, means for moving said carrier away from strip-gripping position by movement of said cover to uncover the strips, a holding lug mounted on said cover, a shoulder on the machine engageable with said lug when the cover is moved into closed position so as to hold the carrier in operative position, a second cover positioned forwardly of said carrier, and holding means for said carrier operatively connected to said second cover so as to hold the carrier in operative position when the latter cover is closed.

23. In a machine of the character described, in combination, strip feeding mechanism including a strip-gripping feed roll, a carrier for said feed roll, a pivotal mounting for said carrier, a cover for the machine, a pivotal mounting for said cover connected to said carrier, a second cover positioned forwardly of said carrier, and holding means for said roll carrier operatively con-

nected to said second cover so as to hold the carrier in operative position when the latter cover is closed.

24. In a machine of the character described, in combination, strip feeding mechanism including a strip-gripping feed roll, a carrier for said feed roll, a mounting arm for said carrier attached thereto and extending forwardly therefrom and pivoted to the machine forwardly of the carrier, a compartment cover positioned forwardly of said carrier and cooperating with said mounting arm to retain the carrier in operative position, a locking lug on said cover and bodily movable therewith, a locking shoulder on the machine positioned for locking engagement with said locking lug, and a mounting link for said cover pivoted thereto and to the machine whereby the cover is bodily movable rearwardly into coperative holding relation with said arm and to bring said locking lug into locking relation with said shoulder.

25. In a machine of the character described, in combination, a strip feeding mechanism including a strip-gripping feed roll, a carrier for said feed roll, a mounting arm for said carrier attached thereto and extending forwardly therefrom and pivoted to the machine forwardly of the carrier, a compartment cover positioned forwardly of said carrier and cooperating with said mounting arm to retain the carrier in operative position, a mounting link for said cover pivoted thereto and to the machine whereby the cover is bodily movable rearwardly into cooperative holding relation with said arm, and a holding device on said cover set in holding position by closure of the cover to retain the latter in arm-holding position.

26. In a machine of the character described, in combination, a frame including two spaced frame members in which strip feeding mechanism is mounted, a supporting plate spaced outwardly from each of said frame members and attached thereto, a carrier for a feed roll of said feeding mechanism pivoted to said supporting plates, and a casing in which said feed mechanism frame is housed and mounted for removal therefrom as a unit.

27. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, means for attaching said frame in operative position in said casing, a strip-supporting platen pivotally attached to said frame and removable with the frame as a unit from the casing, and a platen support attached to said casing and cooperating to support said platen in operative position when installed in the casing.

28. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, means for attaching said frame in operative position in said casing, a strip-supporting platen, a connecting link pivoted to the frame and to the platen, whereby the latter is rearwardly extensible with reference to the frame, and a platen support attached to said casing and cooperating to support the platen in operative position.

29. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, means for attaching said frame in operative position in said casing, a strip supporting platen permanently attached to said frame and removable from the casing as a unit with the frame, a strip tensioning device mounted to the rearward of said platen and connected thereto for movement therewith, and means whereby said platen is movable into position to facilitate loading of the strips into operative position.

30. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame is received and housed in operative position, means for attaching said frame in operative position in said casing, and a platen and casing cover, both having permanent connection to said frame and removable as a unit therewith from the casing, the connection of the cover to the frame including means providing for convenient movement of the cover away from the platen so as to expose the strips to facilitate loading thereof into the machine.

31. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame and feeding mechanism are received and housed in operative position, means for attaching said frame in operative position in said casing, a platen and a casing cover, both having permanent connection to said frame and removable as a unit therewith from the casing, the connection of the cover to the frame including means providing for convenient movement of the cover away from the platen so as to expose the strips to facilitate loading thereof into the machine, and the connection of the platen to the frame being extensible to provide for rearward and upward platen movements.

32. In a machine of the character described, in combination, a frame in which strip feeding mechanism is mounted, a casing having an interior compartment in which said frame with the feeding mechanism is received and housed in operative position, means for attaching said frame in operative position in said casing, a platen and a casing cover, both having permanent connection to said frame and removable as a unit therewith from the casing, and the connection of the platen to the frame being extensible to provide for rearward and upward platen movements.

33. In a machine of the character described, in combination, a casing for the operative mechanism of the machine and having a side wall, a cover having a writing opening and mounted for opening and closing movements, and a bracket hand rest having one or more supporting lugs, each having a downwardly extending flange for engagement with the upper edge of the side wall for detachably holding the rest in operative position near to said writing opening, and an additional supporting lug attached to said bracket rest and positioned for engagement with said cover whereby the latter when closed locks said bracket rest in attached position.

JOEL F. SHEPPARD.
CHARLES J. MANUEL.
HENRY DURK,
Executor of the Will of William A. Pringle, Deceased.