

No. 737,877.

PATENTED SEPT. 1, 1903.

J. A. SMITH.

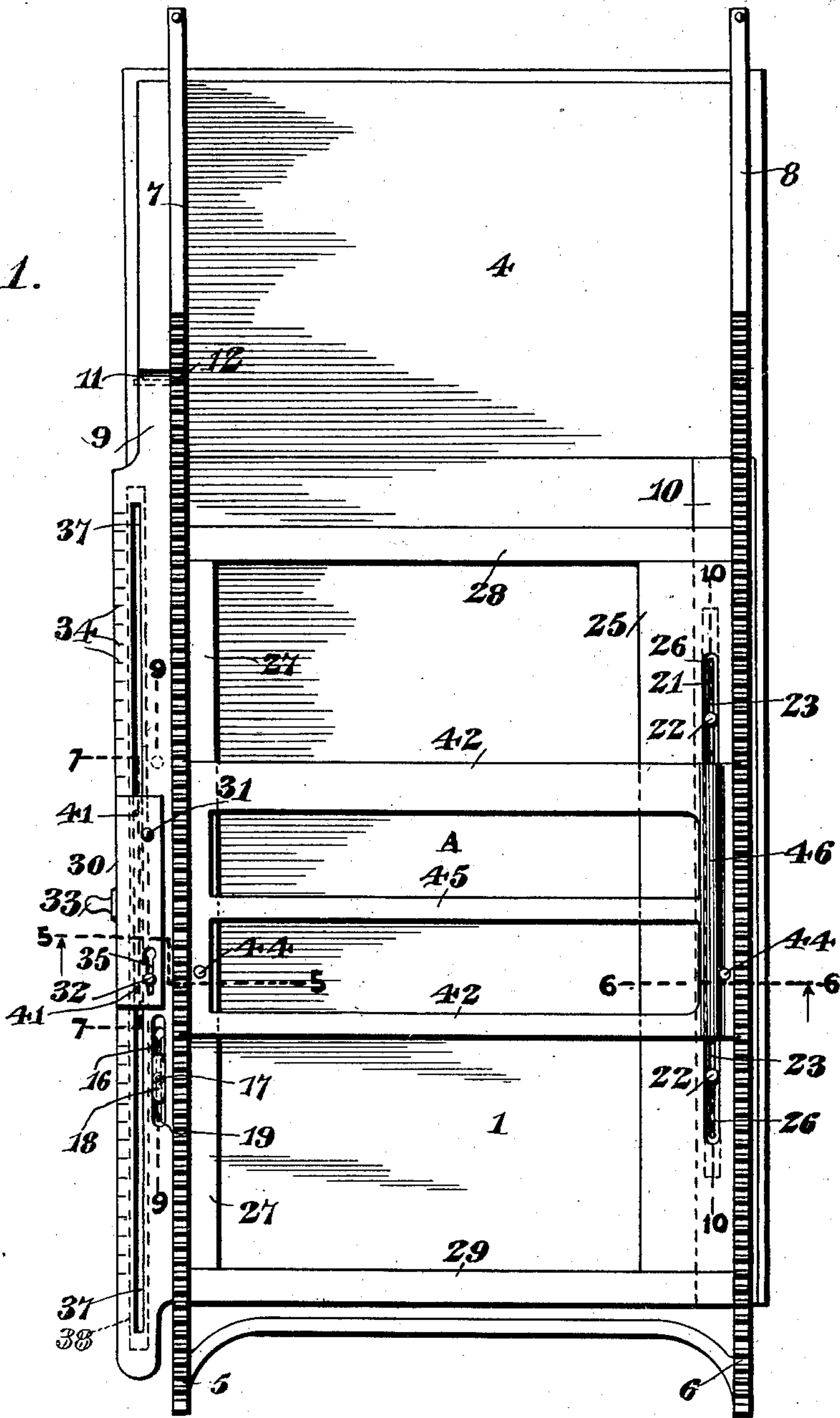
BILLING PLATEN FOR TYPE WRITING MACHINES.

APPLICATION FILED JULY 6, 1901.

NO MODEL.

3 SHEETS—SHEET 1.

Fig. 1.



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By

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Witnesses
Jas. E. McEachran
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NO MODEL.

3 SHEETS—SHEET 2.

Fig. 2.

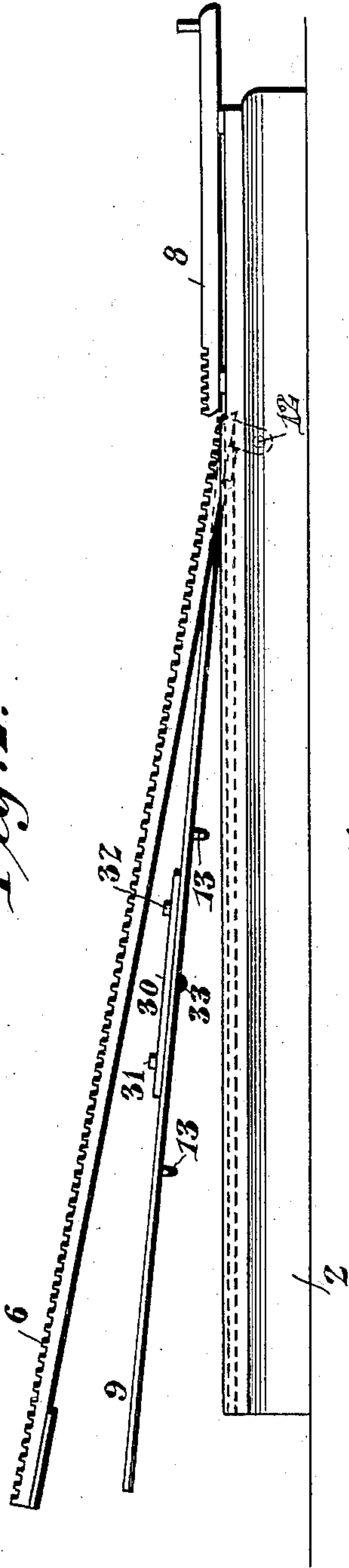


Fig. 3.

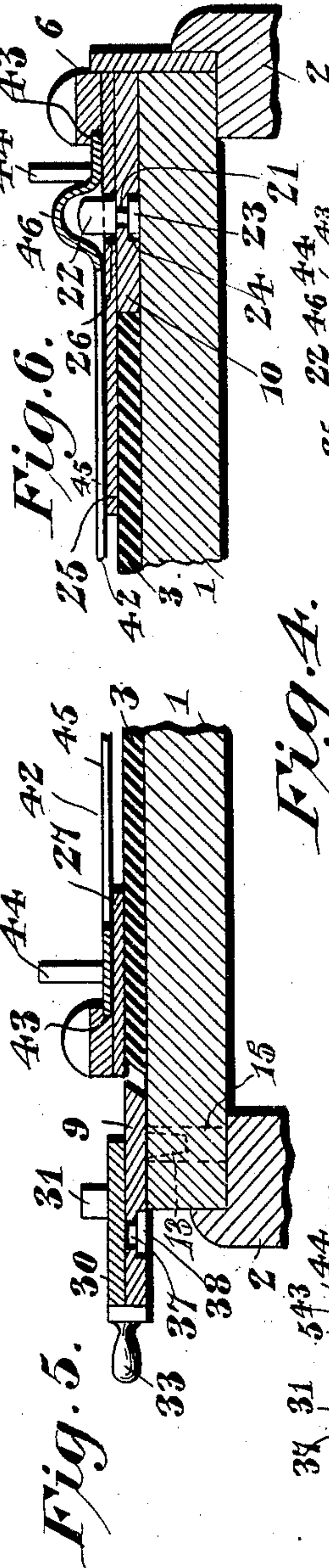
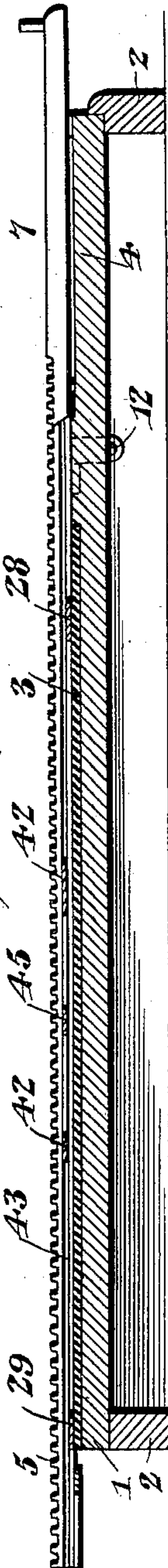


Fig. 5.

Fig. 4.

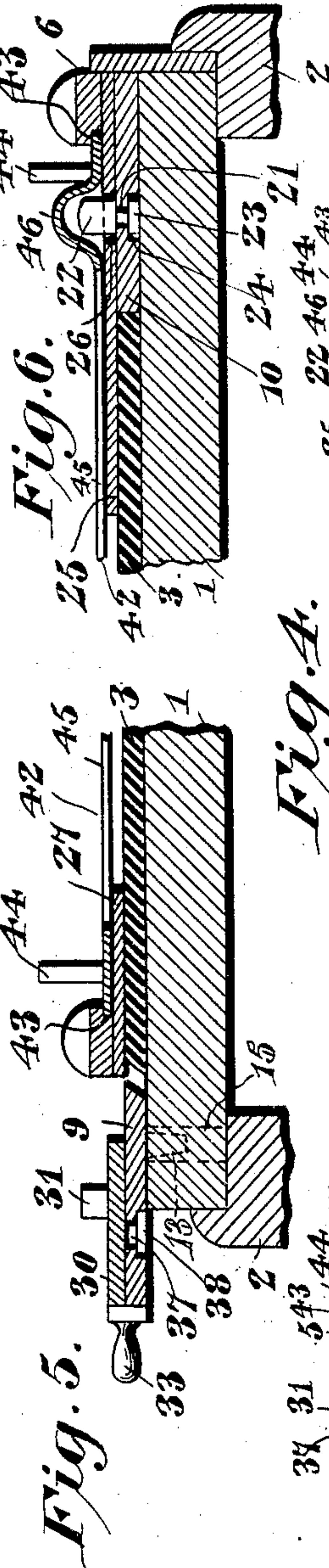
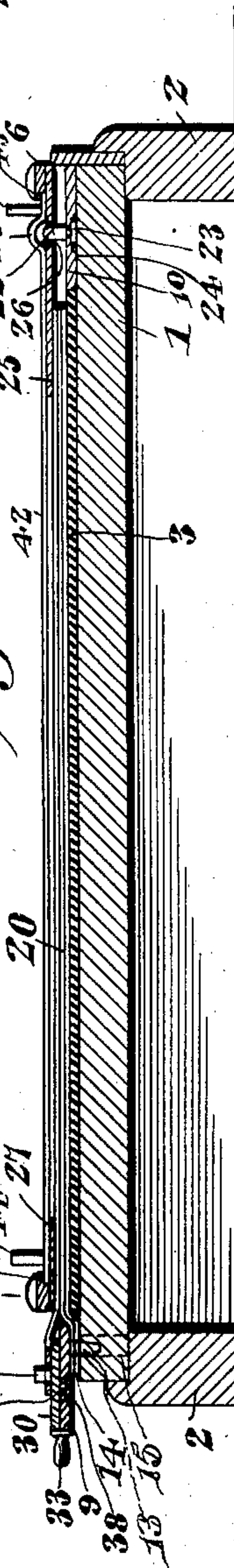


Fig. 6.

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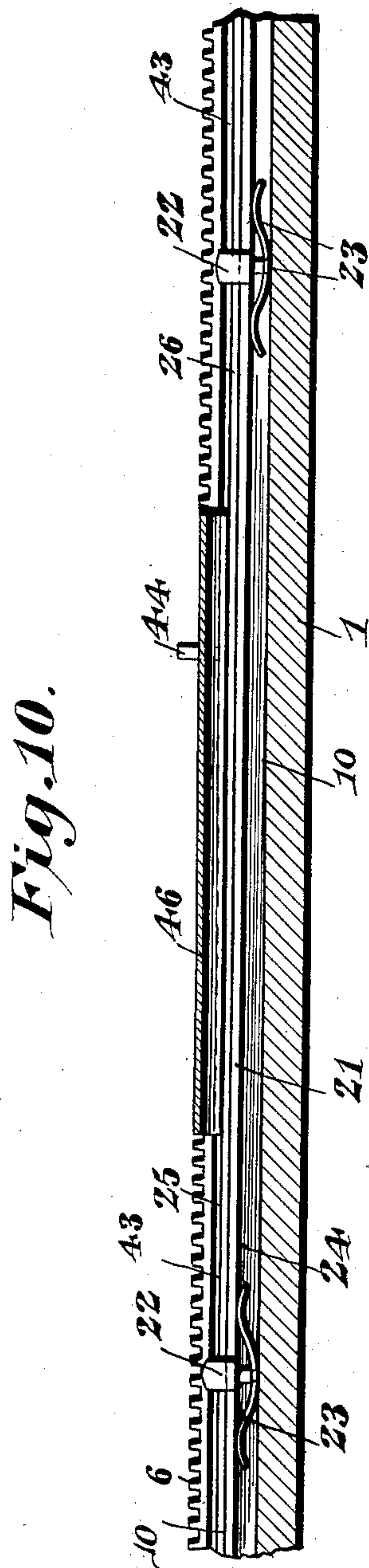
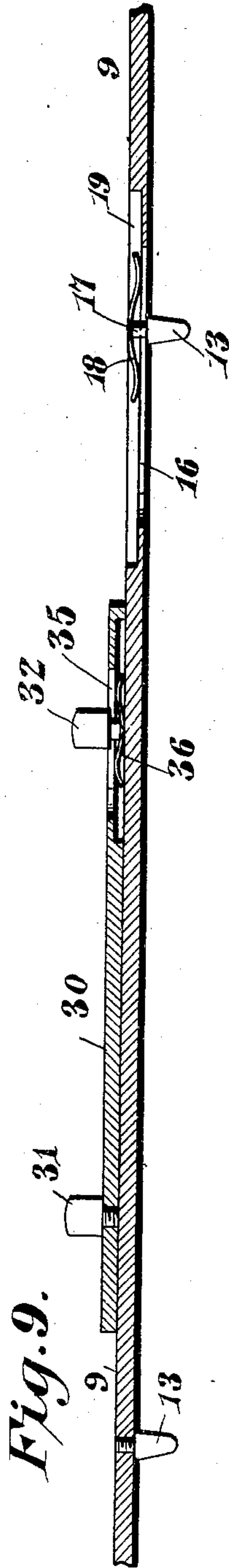
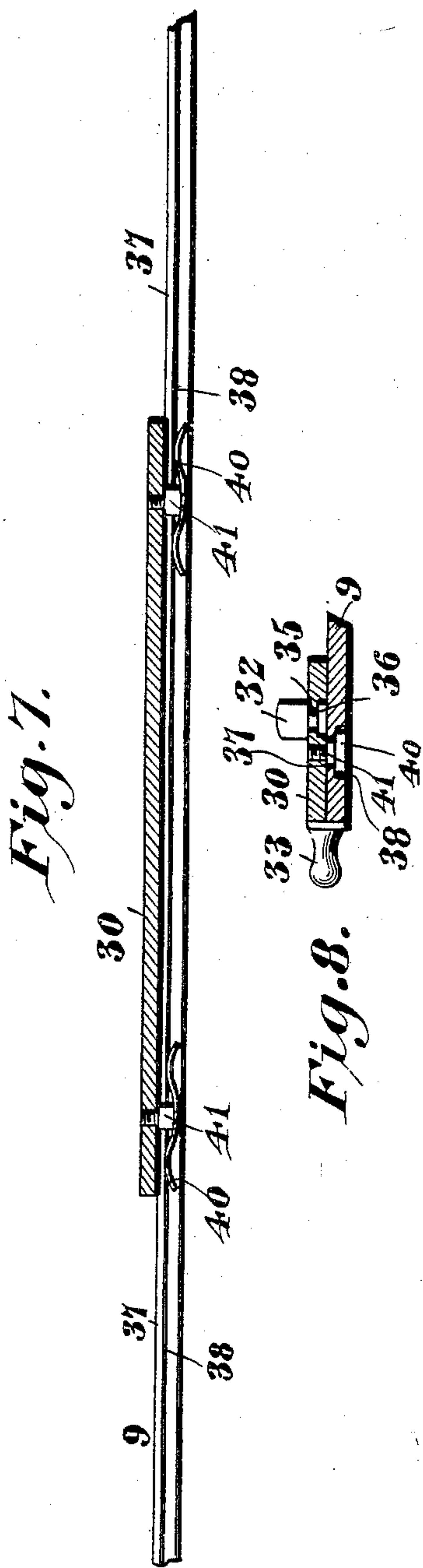
J. A. SMITH.

BILLING PLATEN FOR TYPE WRITING MACHINES.

APPLICATION FILED JULY 6, 1901.

NO MODEL.

3 SHEETS—SHEET 3.



John A. Smith, Inventor

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UNITED STATES PATENT OFFICE.

JOHN A. SMITH, OF ATHENS, TENNESSEE, ASSIGNOR, BY MESNE ASSIGNMENTS, TO ELLIOTT-FISHER COMPANY, A CORPORATION OF DELAWARE.

BILLING-PLATEN FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 737,877, dated September 1, 1903.

Application filed July 6, 1901. Serial No. 67,346. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. SMITH, a citizen of the United States, residing at Athens, in the county of McMinn and State of Tennessee, have invented a new and useful Billing-Platen for Type-Writing Machines, of which the following is a specification.

This invention relates to a novel billing-platen for type-writing machines of the class exemplified in Patent No. 573,868, issued to R. J. Fisher and distinguished by a flat platen over which the printing mechanism travels.

The object of the invention, broadly speaking, is to equip a platen with a number of complementary devices for facilitating the operation of billing; but the primary object thereof is to provide the platen with means for holding a sales-sheet in its proper position and means for positioning bills on the sales-sheet in proper order and with ease, rapidity, and accuracy and for holding each bill rigidly in position at such predetermined points as will eliminate the waste of the space upon the sales-sheet ordinarily occasioned by the printed headings of the bills.

Another object of the invention is to provide the platen with a follower-plate or bill housing and protecting frame arranged to protect the edges of the bill as the machine is advanced to a position thereover and arranged to be shifted by the machine in the direction of line-spacing as the work progresses and to thereby constitute a gage serving to facilitate the adjustment of a shiftable work-sheet or bill-holding device into position to locate the next succeeding bill at a point which will insure the entry of the copy or record thereof immediately below the next preceding entry on the sales-sheet without undue waste of the latter.

The invention also has for its object to provide means at either side of the platen for retaining the sales-sheet in order that when one side of the sheet is filled it may be held in a reversed position, so that its opposite side may likewise be utilized for the entry of the record.

Other and subordinate objects of the invention will hereinafter appear as the necessity for their accomplishment is developed in the succeeding description of that preferred form of my invention which I have illustrated

in the accompanying drawings and which is embraced within the scope of the appended claims.

In said drawings, Figure 1 is a plan view of a platen equipped in accordance with my invention. Fig. 2 is a side elevation thereof, showing the main tracks or guides and the billing-strip both elevated above the writing-surface. Fig. 3 is a longitudinal sectional view of the subject-matter of Fig. 1. Fig. 4 is a transverse sectional view thereof, showing the sales-sheet and the bill or work-sheet in proper position with an interposed carbon-sheet. Fig. 5 is a sectional view on a somewhat enlarged scale on the line 5 5 of Fig. 1. Fig. 6 is a similar view on the line 6 6 of Fig. 1. Fig. 7 is a detail sectional elevation on the line 7 7 of Fig. 1. Fig. 8 is a detail sectional view showing the manner in which the bill-slide is mounted. Fig. 9 is a sectional view on a somewhat enlarged scale on the line 9 9 of Fig. 1, and Fig. 10 is a sectional view on the line 10 10 of Fig. 1.

Like numerals refer to corresponding parts throughout the views.

The platen proper (indicated by the numeral 1) is supported, as usual, by a base 2 and is provided with a composition rubber or other suitable writing-surface 3, which may extend entirely to the rear end of the platen or may terminate at the front end of what is known as the "platen extension" 4, over which the type-writing machine is usually located when not in use. Disposed over the platen in the usual manner are the swinging main tracks or guides 5 and 6, having the rear extensions or fixed rail-sections 7 and 8 disposed at opposite sides of the platen extension 4. These main tracks or guides are designed, as usual, for the reception of the type-writing machine which travels thereon and which may be moved back to a position above the fixed track or guide sections 7 and 8 to permit the swinging tracks or guides 5 and 6 to be moved toward or away from the platen in a manner and for a purpose to be hereinafter explained. At opposite sides of the platen the writing-surface 3 is cut away to accommodate billing-strips 9 and 10, resting upon the surface of the platen proper and having their upper surfaces normally flush with the writing-surface.

The billing-strip 9 is hinged at its rear end, as indicated at 11, in proximity to the adjacent hinge 12 of the contiguous rail-section, so that said billing-strip may be raised and lowered, while the billing-strip 10 may be fixed to the platen to constitute a stationary element thereof. The swinging billing-strip 9 extends along the left-hand edge of the platen outside of or beyond the adjacent rail 5 and is provided with a plurality of gage pins or projections 13, pendent from the under side of the strip and designed to interlock with the sales-sheet 14 and to extend into suitable openings or sockets 15, provided for their reception in the platen. The billing-strip 9 thus constitutes, in effect, a clamp member or plate which when swung down upon the platen engages the edge of the sales-sheet extending over the writing-surface, the pins or projections 13 constituting a gage the members of which extend through the binding-holes in the sales-sheet to accurately position the latter upon the platen and to rigidly retain it against shifting during the manipulation of successive bills in the manner to be described.

The manner of mounting the billing-strip 9 is not essential, provided it is rendered capable of movement toward and from the platen to engage or release the sales-sheet, and the manner of attaching the gage pins or projections 13 to the billing-strip is also non-essential, although it is preferred to make one or both of these pins adjustable longitudinally of the strip 9 for the purpose of accommodating them to variations in the location of the binding-holes or file-openings in the edge of the sheet. In this connection I wish it understood that I lay no claim to the construction illustrated in the application of C. F. Laganke, Serial No. 52,221, filed March 21, 1901. In the illustrated embodiment of the invention I have shown one of the pins or projections 13 adjustably mounted in the billing-strip. The manner of effecting this adjustability of the pin is illustrated in Fig. 9, and comprehends the provision of slots 16 in the strip for the reception of the shank 17 of the pin, to the upper end of which shank is attached a bowed spring 18, received within a longitudinal recess 19 in the upper side of the strip. The tension of the spring 18 is sufficient to retain the pin in any position to which it is moved by the operator, but is insufficient to oppose any substantial resistance to the adjustment of the pin or projection when such adjustment is necessitated by the location of the binding-holes or file-openings in the particular sales-sheet to be secured in place. Ordinarily the sales-sheet secured in this manner completely covers the writing-surface of the platen and is designed to receive the transferred copy or record entry of the successive bills as they are made out on the platen. Therefore while separate individual carbon or other transfer sheets may be employed for the several bills it is preferable to

employ a single carbon-sheet 20, extended over the sales-sheet and likewise secured in place by the billing-strip 9 and the projections 13, as shown in Fig. 4 of the drawings.

The stationary billing-strip 10 instead of being provided with depending studs or gage-pins is longitudinally slotted, as indicated at 21, for the reception of upstanding gage projections or pins 22, adjustable longitudinally of the strip and retained by bowed springs 23, secured to the shanks of the pins 22 and bearing against the bottom wall of an elongated recess 24, formed in the under side of the strip 10. The pins or projections 22 are designed to interlock with the file or binding holes in the sales-sheet when the latter is reversed to permit the use of both sides of the sheet for the reception of record entries—that is to say, the billing-strip 9 and its appurtenant projections are designed to engage the edge of the sales-sheet to retain the latter fixedly in position upon the platen during the operation of billing, so that the sheet will receive the transferred copies of the bills as they are made out successively, one under the other, in the longitudinal direction of the platen. If now it is desired to utilize the reverse side of the sales-sheet, said sheet is released by the elevation of the billing-strip 9, and its position having been reversed the gage pins or projections 22 at the right-hand side of the platen will engage the file or binding holes in the sheet to insure the secure retention of the sheet in its reversed position.

The strip 10 is located beneath the rail 6 at the right-hand side of the platen, but extends a sufficient distance inside of said rail to permit the mounting of the pins or projections 22 between the rails, but adjacent to the rail 6. This location of the pins at the right-hand side of the platen disposes them in coöperative relation with the clamping-plate or workholding member 25, secured to and movable toward and from the platen with the rail 6 and provided with a longitudinal slot 26 for the accommodation of the pins 22. Thus when said pins are in interlocking engagement with the sales-sheet the latter is securely clamped by the clamping member or strip 25, said plate or strip constituting one member of a frame designed to insure the flat spread-out condition of the sales-sheet and comprehending in addition to the strip or plate 25 a longitudinally-disposed frame-strip 27, secured to the left-hand rail 5, and two transverse frame-strips 28 and 29, extending between the rails at the opposite ends of the strips 25 and 27.

We have now seen the manner in which the sales-sheet is secured in place upon the platen, and it will be noted that its retention is effected independently of the main tracks or guides, so that the latter may be raised from the writing-surface without in any manner disturbing the position of the sales-sheet. Bearing in mind that this sales-sheet is designed to receive copies of a number of bills and that one of the objects of the present in-

vention is to economize the space upon the sales-sheet, I shall now proceed to describe the manner in which the individual bills are positioned with ease, rapidity, and accuracy upon the sales-sheet and are held rigidly against shifting during the printing operation.

Outside of or beyond the rail 5 the swinging billing-strip 9 is provided with what may be termed an "adjustable" or "sliding" work-holder on bill-slide 30, provided with a pair of upstanding gage projections or studs 31 and 32 and with a laterally-disposed handle 33 by means of which latter the bill-slide may be shifted longitudinally of the billing-strip 9 and positioned thereon in accordance with a series of graduations or scale 34, provided upon the upper surface of the billing-strip to facilitate the positioning of the slide. This shiftable work-holder or slide 30 is designed to be moved to various positions for the purpose of retaining the successive bills upon the platen and in such position with respect to the sales-sheet as to cause the copy or record entry to be made directly below or following the copy of the preceding bill and may be provided with any desired character of means for engaging the bill. For instance, a clamp might be substituted for the pins or studs 31 and 32. The pins or studs 31 and 32, carried by the slide 30, are designed to engage the file or binding holes in the edge of the bill, and as the distance between these holes varies somewhat the pins are designed to be relatively adjustable—as, for instance, by mounting the shank of the pin 32 in the longitudinal slot 35 in the slide and by providing said pin with a retaining-spring 36 for holding it in its adjusted positions. It is evident, however, that the bill-slide 30 might be equipped with other work engaging or holding devices instead of the upstanding pins 31 and 32, the only requisite being that a shiftable work-holder or bill-retaining device be provided in order that it may be positioned at different points for the retention of the bills in their proper order and position. Therefore, while I have shown a slide equipped with work-engaging pins, it is evident that other forms of adjustable work-holders might be employed in lieu thereof. In the present embodiment of the invention, however, the sliding engagement between the bill-slide 30 and the billing-strip 9 is effected by providing said strip with a longitudinal slot 37, opening into a somewhat wider elongated recess 38 in the under side of the strip 9 and designed for the reception of a retaining-spring 40, screwed or otherwise secured to the studs 41, depending from the under side of the slide 30 and movable within the slot. After the main tracks or guides have been raised above the platen and the sales-sheet secured in place the bill-slide 30 is moved to its proper position, and the bills, either single or in duplicate or in such number as may be desired are slipped in place upon the platen with their binding-

holes in engagement with the gage-pins or projections 31 and 32, and the main tracks or guides and the work-holding frame, carried thereby, are lowered into their horizontal positions over the several work-sheets thus mounted.

In one aspect of my invention the described construction comprehends a complete embodiment thereof, inasmuch as it includes means for retaining a record or sales sheet upon the platen and a work-holder for retaining the bill or other primary work-sheet in different relative positions with respect thereto, and also a work-holding member—to wit, the billing-strip 9—and a second work-holding member—to wit, the bill-slide 30—adjustable thereon to permit the relative positions of these members to be changed in order that the relative positions of the work-sheets retained by these members may be varied to suit the conditions of use.

The shiftable bill-slide 30 constitutes, as will be evident, a convenient work-holding device the position of which may be shifted so as to hold the successive bills in their respective positions to permit the transference to the record or sales sheet of the several bill records or copies in their proper order, and the positions of the bills may be such that the first line of writing of the record will be located closely adjacent to the last line of writing of the preceding record on the sales-sheet, thus economizing the latter by eliminating the blank space ordinarily coincident with the printed heading of the bill. The positioning of the bill-slide in order to locate the bills in this economical manner is rendered exceedingly difficult, particularly when the sales-sheet is entirely covered by the carbon or other transferring element, because after a bill has been removed the last line of writing on the sales-sheet cannot be seen. Therefore, in order to locate the last line of writing of the record for the purpose of properly positioning the bill-slide with respect thereto the carbon-sheet must be raised and the bill-slide then adjusted to a position which will insure the retention of the next bill at such point on the sales-sheet as will insure the entry of the next bill record or copy immediately following the preceding entry without interference therewith and without any undue waste of space between the records. This manipulation of the carbon-sheet is obviously objectionable, and therefore I provide a novel gage or indicator for indicating the location of the last line of writing and designed to aid the operator in the adjustment of the bill-slide to its proper position for the reception of the next bill or other work-sheet. In the illustrated embodiment of the invention this line gage or indicator is in the form of an open follower plate or frame 42, of rectangular form, slidably engaging the longitudinal grooves or channels 43, formed in the inner faces of the main tracks or guides. These grooves or channels may be formed entirely in the tracks

or rails; but where the light metal frame, comprehended by the strips or plates 25, 27, 28, and 29 is employed the bottom walls of said grooves are formed by the plates 25 and 28 and the follower plate or frame 42 slidably engages the main tracks or guides and rests upon the work-holding frame. The follower-frame 42 is therefore free to move over the writing-surface, either forward or backward, in direction of line-spacing and is movable away from or toward the writing-surface with the main tracks or guides as the latter are raised and lowered. The follower-frame 42 bears a somewhat-close resemblance to the follower-plate described in the application of Charles F. Laganke, Serial No. 65,495, since it slidably engages the machine rails, is designed for movement over the platen in the direction of line-spacing, and is intended to be automatically advanced by the traveling printing mechanism as the latter moves forward under the impulse of the line-spacing mechanism. Like the Laganke follower-plate, the follower-frame 42 is provided with upstanding machine-engaging projections 44, with which the machine-frame engages to effect the shifting of the follower-frame. When the machine is brought forward, it is desirable that the margin of the bill or of the sheet be protected from possible contact with the machine-frame, and the frame or plate 42 is designed to perform this function as well as to insure a smooth flat condition of the paper at the printing-point and to constitute an indicator facilitating the positioning of the bill-slide. Across the face of the follower or housing frame 42 is disposed a narrow metal strip 45, which when the machine-frame is in engagement with the projections 44 is located a slight distance—for instance, about one-half inch—in advance of the printing-point located at A in Fig. 1. This strip 45 therefore constitutes the indicator proper, since its edge is located at a known distance from the last line of writing on the sales-sheet; but it also serves as a straight-edge or rule along which a blunt instrument or pencil may be drawn over the carbon-sheet for the purpose of transferring a straight line to the record-sheet under the sales-record. In this manner the record copies of the bills will be ruled off one from another to avoid confusion and to make them readily distinguishable. In the illustrated embodiment of the invention the gage projections or pins 22 extend upwardly through the plate 25, and as the follower-frame rests upon and is designed to slide along said plate the frame is crimped, as indicated at 46, along a line coincident with the slot 26 to enable the frame to clear the gage-pins.

In practice the manipulation of the platen equipped with my invention is as follows: The billing-strip and the main tracks or guides are swung back from the surface of the platen and the sales or record sheet, together with a transfer sheet or carbon, are

disposed over the writing-surface. The billing-strip 9 is then lowered upon the left-hand edge of these sheets to clamp the same and to cause the projections 13 to pass through the sheets and interlock with the platen. The bill-slide 30 is then moved along the billing-strip 9 to simultaneously adjust the bill-engaging studs or pins 31 and 32 to their proper positions, and the bill or bills, if more than one copy is required, are disposed over the transfer-sheet, with their binding or file holes in engagement with the bill-engaging pins of the bill-slide. The main tracks or guides are now lowered upon the platen, the bill is clamped in position by the left-hand rail and by the work-holding frame fixed to the rails, and the follower-frame 42 having been moved to its proper position the machine is moved forward over the writing-surface and the proper entries are made upon the bill in the usual manner. The line-for-line progression of the machine in the direction of line-spacing will cause the automatic advance of the follower-plate to maintain the indicator-strip 45 at a given distance below or in front of the last line of writing. Consequently when the bill has been completed the main tracks or guides may be elevated, the bill removed, and a line drawn under the record entry of said bill by lowering the rails upon the platen and drawing a blunt instrument across the carbon-sheet along the upper or rear edge of the indicator strip or rail 45. The frictional engagement of the follower-frame with the main tracks or guides is sufficient to prevent the displacement of the former when the main tracks or guides are raised, and the location of the strip 45 will therefore indicate to the operator the position of the line drawn under the completed record. Therefore in order to locate the next entry directly below the line indicating the termination of the record it is simply necessary to shift the bill-slide 30 to its proper position relative to the indicator-strip 45, and thus position another bill, after which the machine may be advanced to the printing position and the foregoing operation repeated. If now it is desired to continue the entry of individual records upon the opposite or reverse side of the sales or record sheet, the latter may be reversed and held against shifting by the engagement of its file or binding holes with the gage projections or pins 22 at the right-hand side of the platen. It is desirable, however, to manipulate the bills from the left-hand side of the platen at all times, whether the sales-sheet is reversed or not, because otherwise it might be necessary to reset the tabulator-stops of the type-writing machine with respect to the rulings on the bills. This is obviously not necessary when the sales-sheet is reversed, for the reason that said sheet is plain and the location of the tabulated entries at any particular point thereon is not necessary.

It should be mentioned, in conclusion, that while it may be preferable to employ a fixed

billing-strip at the right-hand side of the platen, as shown in the drawings, it may be desirable to duplicate the swinging billing-strip 9 at the right-hand side of the platen in order that the record-sheet may be clamped and engaged at this side of the platen, as it is in the present construction at the left-hand side thereof, and under some conditions it may also be preferable to duplicate the bill-slide to enable the bills to be manipulated from the right-hand side of the platen, as well as from the left-hand side thereof.

Inasmuch as the claims have been drawn to the invention in several aspects thereof, it may be well to call attention to the fact that the billing-strip 9 constitutes a work-holder upon which the bill-slide 30, also constituting a work-holder, is mounted and that by reason of the fact that both of these elements are provided with work-engaging projections the billing strip and slide may be viewed collectively as a work-gage composed of separate work-engaging devices disposed to engage and retain separate work-sheets. It will also appear that the bill-slide 30 constitutes a work-holder movable toward and from the platen and adjustable to different positions to retain work-sheets at different points upon the writing-surface, and, furthermore, that the strip 9 and slide 30, while constituting work-holders disposed in different planes and adjustable with respect to each other, may also be viewed collectively as a work-holder having oppositely-extending work-engaging devices, members, or projections which are relatively adjustable to retain separate work-sheets in their various relative positions. Furthermore, the billing-strip and the adjacent track or guide constitute two independent paper-clamping mechanisms, each extending the entire length of the platen, or substantially so, and capable without special adjustment of holding top and bottom sheets of various sizes in any required relation to each other and to the platen. The track or guide will also be seen to constitute means for holding a number of sheets on the platen, while the adjacent billing-strip is an embodiment of independent means for holding one or more of the sheets while the outside sheet or bill is being adjusted or removed.

It is thought that from the foregoing the construction and operation of the subject-matter of my invention will be clearly understood; but while the present embodiment of said invention is believed at this time to be preferable I desire to reserve the right to effect such changes, modifications, and variations of the illustrated structure as may be suggested by experience and experiment and properly embraced within the scope of the protection prayed.

What I claim is—

1. In a type-writing machine, the combination with a flat platen, of two independent paper-clamping mechanisms extending longi-

tudinally of the platen to retain separate work-sheets one above the other.

2. In a type-writing machine, the combination with a flat platen, of a plurality of independent longitudinal work-engaging devices, one for clamping a sheet upon the platen and the other for clamping a second sheet upon the first or underlying sheet.

3. In a type-writer, the combination of a flat platen to sustain the paper, and two independent paper-clamping mechanisms, each extending the entire length of the platen or substantially so, whereby it is possible without special adjustment of the clamps to hold top and bottom sheets of various sizes in any required relations to each other and to the platen.

4. In a type-writing machine, the combination with a flat platen, and a vertically-movable track or guide for a traveling machine, of a longitudinal paper-clamp to retain a work-sheet underlying a second work-sheet held thereon by the track or guide.

5. The combination with a flat platen, of the tracks or guides for the traveling machine, said tracks or guides being movable away from the platen to release the work, and a longitudinal work-engaging device movable independently of the tracks or guides to engage and release the work.

6. In a type-writing machine, the combination with a flat platen, and the vertically-movable tracks or guides for a traveling machine, of an independent paper-clamp extending lengthwise of the platen adjacent to its edge, whereby a work-sheet may be held upon the platen by the independent clamp to underlie a second work-sheet clamped thereon by a track or guide.

7. In a type-writing machine, the combination with a flat platen, and the tracks or guides for the traveling machine, of an independent paper-clamp disposed longitudinally of the platen outside of a track or guide.

8. The combination with a flat platen, and the movable tracks or guides, of a longitudinal paper-clamp hinged to the platen independently of the tracks or guides, and independently movable to engage and release the work.

9. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a plurality of longitudinal work-engaging devices independent of the tracks or guides for retaining separate work-sheets disposed one above the other.

10. In a type-writing machine, the combination with a flat platen, of three distinct work-holding devices coöperating to retain separate work-sheets disposed one above the other.

11. In a type-writing machine, the combination with a flat platen, of a pair of work-holding devices for retaining separate sheets one above the other, and a vertically-movable track or guide arranged to clamp said sheets upon the platen.

12. In a type-writing machine, the combination with a flat platen, the tracks or guides, and means for retaining a sales-sheet on the platen, of a work-holding device adjustable
5 along the platen to retain successive bills or other work-sheets at different points upon the sales-sheet.

13. In a type-writing machine, the combination with a flat platen, and the main tracks
10 or guides for the traveling printing mechanism, of a plurality of separate work-holders mounted independently of the main tracks or guides and having relative adjustment one along the other.

14. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
15 of a plurality of separate longitudinally-disposed work-holders in parallel relation and relatively adjustable longitudinally.

15. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
20 of a primary work-holder for retaining a sales-sheet on the platen, and a supplemental work-holder adjustably mounted on the primary work-holder to retain successive bills
25 or other work-sheets at different points upon the sales-sheet.

16. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
30 of means for retaining a sales-sheet on the platen, and a work-holding device located outside of a track or guide and adjustable along the platen to retain successive bills or other
35 work-sheets at different points upon the sales-sheet.

17. In a type-writing machine, the combination with a flat platen, and the hinged tracks
40 or guides, of a billing-strip hinged independently of the tracks or guides and disposed to retain a sales-sheet on the platen, and a supplemental work-holding device adjustable
45 along the platen to retain successive bills or other work-sheets at different points upon the sales-sheet.

18. The combination with a platen, and the main tracks or guides for the traveling printing
50 mechanism, of a plurality of separate work-engaging members relatively adjustable in the longitudinal direction of the platen, and mounted for simultaneous movement toward and away from said platen independently of the main tracks or guides.

19. In a type-writing machine, the combination with a flat platen, and the hinged tracks
55 or guides, of a billing-strip hinged independently of the tracks or guides and designed to retain a sales-sheet on the platen, and a work-holding device adjustable upon the billing-strip to retain successive bills or other work-
60 sheets at different points on the sales-sheet.

20. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
65 of a primary work-holder located outside of a track or guide to retain a sales-sheet on the platen, and a secondary work-holding device also located outside of a track or guide and adjustable along the platen to retain successive

bills or other work-sheets at different points upon the sales-sheet.

21. The combination with a flat platen, and
70 the tracks or guides for the traveling machine, of billing-strips disposed at opposite sides of the printing area of the platen.

22. In a type-writing machine, the combination with a flat platen over which the machine
75 is arranged to travel, of work-holding devices located at opposite sides of the printing area of the platen to retain a sales-sheet in reversed positions, and means for retaining successive bills or other work-sheets at different
80 points on the sales-sheet.

23. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
85 of billing-strips located at opposite sides of the platen to retain a sales-sheet in reversed positions, and a work-holding device adjustable along the platen to retain successive bills or other work-sheets at different points upon the sales-sheet.

24. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
90 of a billing-strip movable toward and from the platen and designed to engage and retain the sales-sheet, and work-engaging means adjustably mounted on the upper side of the
95 billing-strip to engage a separate work-sheet.

25. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
100 of separate work-engaging devices disposed in different planes for retaining separate work-sheets disposed one above the other.

26. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
105 of separate work-engaging devices disposed in different horizontal planes to engage and retain separate work-sheets disposed one above the other.

27. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
110 of separate relatively-adjustable work-engaging devices disposed in different horizontal planes for engagement with separate work-sheets disposed one above the other.

28. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
115 of separate work-holders arranged one above the other to engage separate work-sheets in superposed relation.

29. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
120 of separate relatively adjustable work-holders arranged one above the other, to engage separate work-sheets in superposed relation.

30. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
125 of a primary work-holder arranged to retain a sheet upon the platen, and a supplemental work-holder mounted upon the primary work-holder to retain a work-sheet disposed over the first-named sheet.

31. In a type-writing machine, the combination with a flat platen, and the tracks or guides,
130 of a primary work-holder movable toward and away from the platen, and a supplemental

work-holder adjustably mounted on the primary work-holder.

32. The combination with a flat platen, and the tracks or guides, of a work-holder comprising a plurality of simultaneously-adjustable work-engaging projections designed to retain successive work-sheets at different points on the platen.

33. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a slidably-mounted work-holder having a plurality of relatively-adjustable work-engaging projections.

34. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a work-holder mounted at one longitudinal edge of the platen, and comprising a slide and a plurality of relatively-adjustable work-engaging members.

35. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a work-holder mounted at one longitudinal edge of the platen, and comprising a slide and a plurality of work-engaging projections, one of said projections being adjustable upon the slide.

36. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a work-holder mounted for adjustment along one longitudinal edge thereof, and movable toward and away from the platen.

37. The combination with a platen, of a bill-slide disposed at one longitudinal edge thereof and provided with a plurality of projections designed to engage file-openings in the bill, said bill-slide being movable toward and away from the platen.

38. The combination with a platen and the main tracks or guides for the traveling machine, of a plurality of gage projections, and a support for said projections movable toward and from the platen independently of the main tracks or guides.

39. The combination with a platen and the main tracks or guides for the printing mechanism, of a plurality of relatively-adjustable gage projections, and a support for said projections movable toward and from the platen independently of the main tracks or guides.

40. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a plurality of gage projections relatively adjustable toward and from each other, and means for simultaneously shifting said projections to position them for the retention of successive work-sheets at different points on the platen, and a support for said gage projections, said support being movable toward and from the platen.

41. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a plurality of gage projections, a slide supporting said projections in a manner to permit their relative adjustment toward or from each other, and a swinging support for the slide.

42. In a type-writing machine, the combination with a flat platen, and the tracks or guides,

of a hinged billing-strip, a slide mounted thereon for adjustment in the longitudinal direction of the strip, and work-engaging means carried by the slide.

43. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a hinged billing-strip, a slide adjustably mounted thereon, and a plurality of gage projections carried by the slide and capable of relative adjustment.

44. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a work-gage comprising depending gage projections disposed to engage the sales-sheet, and upstanding projections designed to engage a bill or other work-sheet to retain it in position upon the sales-sheet.

45. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a work-holder provided with depending gage projections designed to engage the sales-sheet to retain it in position on the platen, and an upstanding gage projection designed to engage a bill or other work-sheet, said oppositely-disposed projections being relatively adjustable for the purpose of changing the relation of the sheets.

46. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a billing-strip mounted thereon for movement toward and away from the writing-surface, a slide mounted on said strip, and upstanding gage projections carried by the slide.

47. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a primary work-holder, and a supplemental work-holder mounted on the primary work-holder, said work-holders being provided with work-engaging projections extending in different directions.

48. The combination with a platen, of a billing-strip mounted thereon for movement toward and from the writing-surface, relatively-adjustable depending gage-pins projecting from said strip, a slide mounted on the strip for adjustment longitudinally thereof, and relatively-adjustable upstanding gage-pins mounted on the slide.

49. In a type-writing machine, the combination with a flat platen, and the tracks or guides, of a work-holder adjustable along the platen in the direction of line-spacing and designed to retain the work-sheets at different points on the platen, and an indicating device for facilitating the adjustment of said work-holder.

50. The combination with a platen, of a work-holder adjustable to different positions thereon to retain successive work-sheets at different points, and an indicating device movable over the platen in the direction of line-spacing as the work progresses, to indicate the location of the last line of writing and to thereby serve as a guide for the adjustment of the work-holder to its next position.

51. The combination with a platen, and the main tracks or guides for the traveling print-

ing mechanism, of a work-holder adjustable along the platen to retain successive work-sheets in their different positions, and an indicator automatically moved by the machine in the direction of line-spacing to indicate the last line of writing and thereby facilitate the adjustment of the work-holder to its next position.

52. The combination with a platen, and the main tracks or guides for the traveling printing mechanism, said tracks or guides being mounted for movement toward and away from the writing-surface, of a work-holder slidably mounted independently of the main tracks or guides to retain successive work-sheets at different points on the platen, and an indicating device movable toward and away from the writing-surface and shiftable thereover in the direction of line-spacing, whereby said indicator may be raised to permit the removal of the work-sheet from the work-holder and serves to indicate the location of the last line of writing and to facilitate the positioning of the work-holder in proper position to retain the next succeeding work-sheet.

53. The combination with a platen, and the main tracks or guides for the traveling printing mechanism, of a work-holder slidably mounted independently of the main tracks or guides and designed to be shifted to different positions to retain successive work-sheets at different points on the platen, and an indicator disposed over the platen and slidably engaging the main tracks or guides, said indicator being provided with machine-engaging projections.

54. The combination with a platen, and the swinging main tracks or guides for the traveling printing mechanism, of a billing-strip mounted upon the platen independently of the main tracks or guides and designed to retain a sales-sheet upon the platen, a bill-slide adjustable longitudinally of the platen and designed to retain successive bills or other work-sheets at different points upon the sales-sheet, and an indicator slidably engaging the main tracks or guides and provided with machine-engaging projections, whereby said indicator is advanced in the direction of line-spacing to indicate the position of the last line of writing on the record-sheet and to facilitate the positioning of the bill-slide for the retention of the next succeeding bill in its proper position, and may be moved away from the writing-surface to permit the removal of the bill or other work-sheet from the bill-slide without disturbing the position of the sales-sheet.

55. The combination with a platen, and the swinging main tracks or guides for the traveling printing mechanism, of a hinged billing-strip disposed along one longitudinal edge of the platen and provided with depending gage

projections, a bill-slide mounted for longitudinal adjustment along the billing-strip and provided with upstanding-gage projections, and a follower-frame extending across the platen and having slidable connection with the main tracks or guides, said follower-frame being provided with machine-engaging projections.

56. The combination with a platen, and the main tracks or guides for the traveling printing mechanism, of bill-strips disposed at the opposite sides of the platen and provided with gage projections, and a work-holder frame carried by the main tracks or guides to assist in the retention of a sheet upon the platen.

57. The combination with the platen, and the main tracks or guides for the traveling printing mechanism, of a follower slidably engaging the main tracks or guides to protect the work-sheet, and provided with machine-engaging projections and with an opening disposed at the printing-point when the machine is in engagement with said projections.

58. The combination with a platen, and the main tracks or guides for the traveling printing mechanism, of a substantially rectangular follower-frame having slidable engagement with the main tracks or guides, and provided with an indicating-strip extending longitudinally of the frame at the center thereof, said follower-frame being provided with machine-engaging projections.

59. In a type-writing machine, as a means for producing condensed records, the combination with a flat platen, of means for holding the record-sheet in a fixed position during the removal of a superposed sheet.

60. In a type-writing machine, as a means for producing condensed records, the combination with a flat platen, of means for holding both a carbon and a record sheet in a fixed position during the removal of a superposed sheet.

61. In a type-writing machine, the combination of a flat platen, means for holding a number of sheets thereon, and independent means for holding one or more of the sheets while the outside sheet is being adjusted or removed.

62. In a type-writing machine, the combination with a flat platen, of means for holding a number of sheets thereon, and a clamp for holding one or more of the sheets in a fixed position while one or more of the other sheets are being adjusted or removed.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN A. SMITH.

Witnesses:

ROBT. J. FISHER,
A. R. WARNER.