No. 860,443. PATENTED JULY 16, 1907.

C. A. BUNKER.

MACHINE FOR MARKING LAUNDRY.

APPLICATION FILED APR. 18, 1907.

5 SHEETS—SHEET 1.

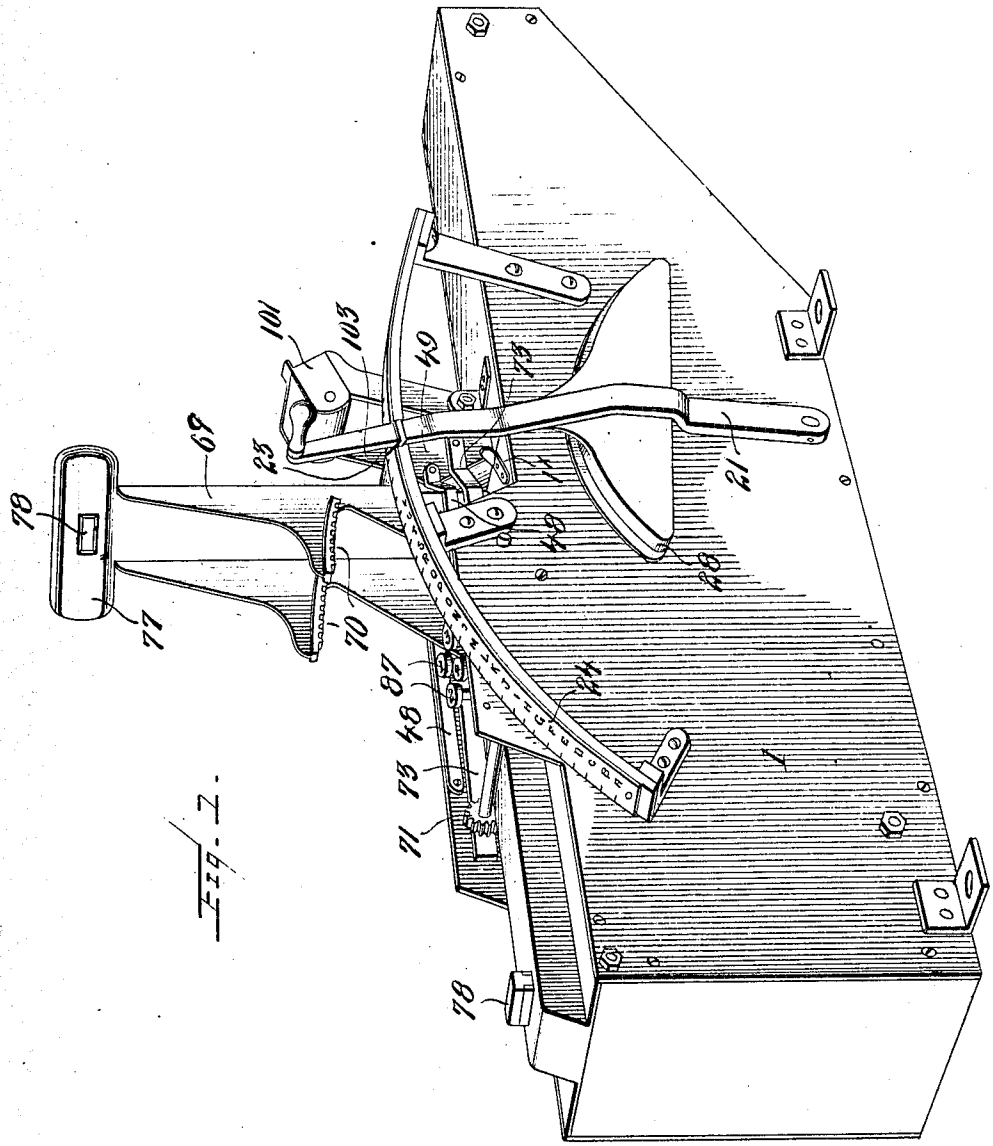



Fig. 1.

WITNESSES:

Wm. F. Hough

C. L. Hough

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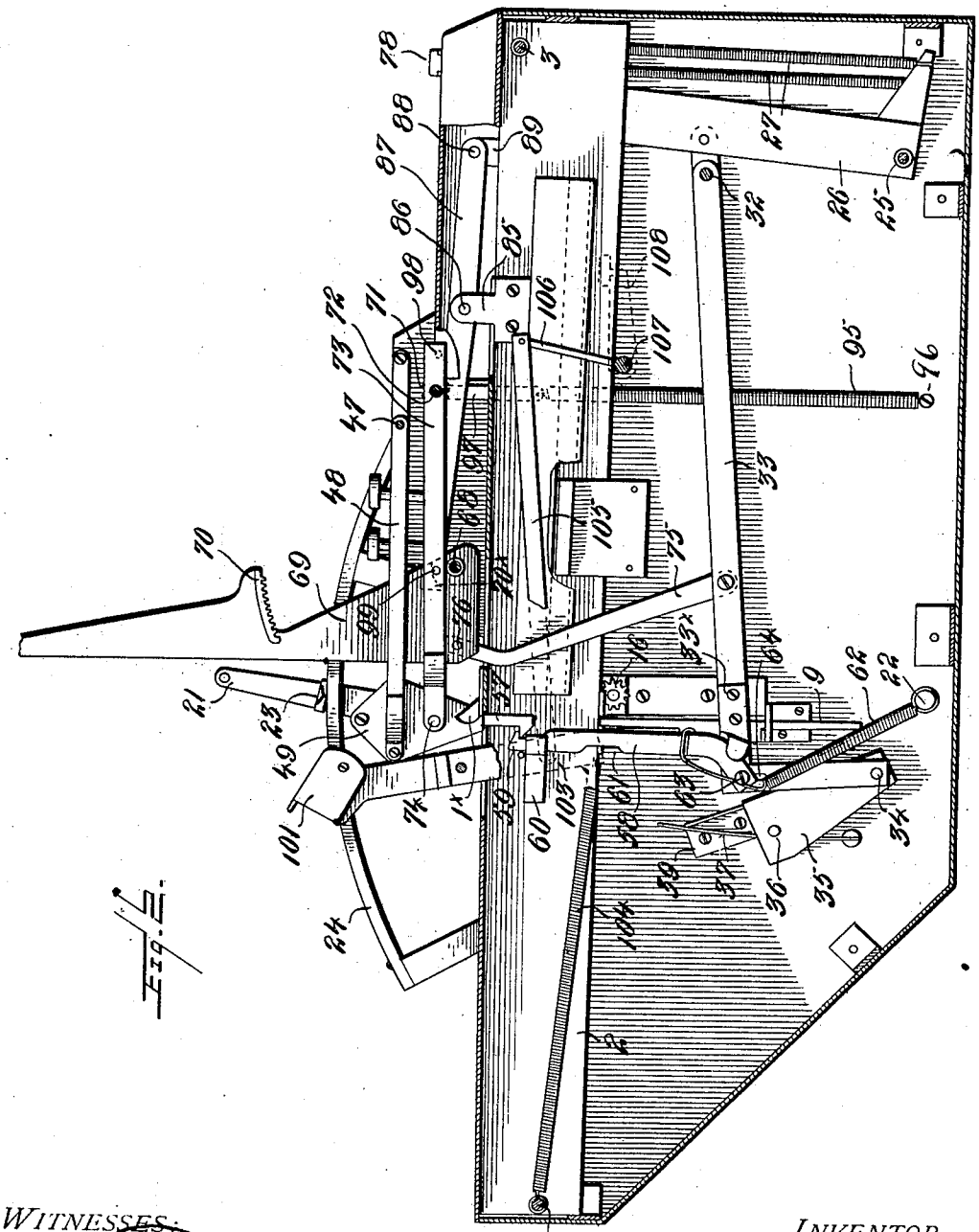


Fig. 2.

WITNESSES:

Wm. F. Hough Co.

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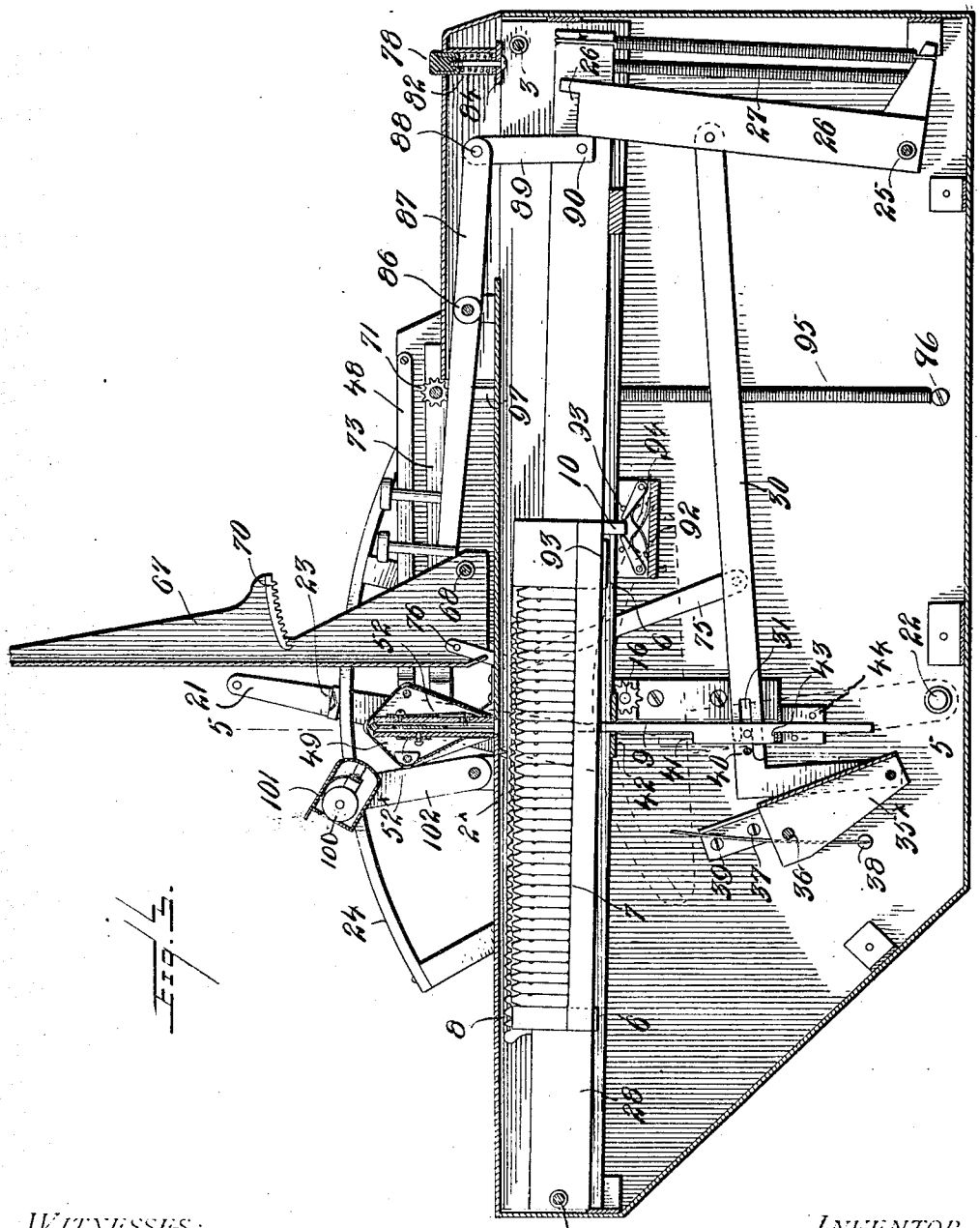


Fig. 3.

WITNESSES:

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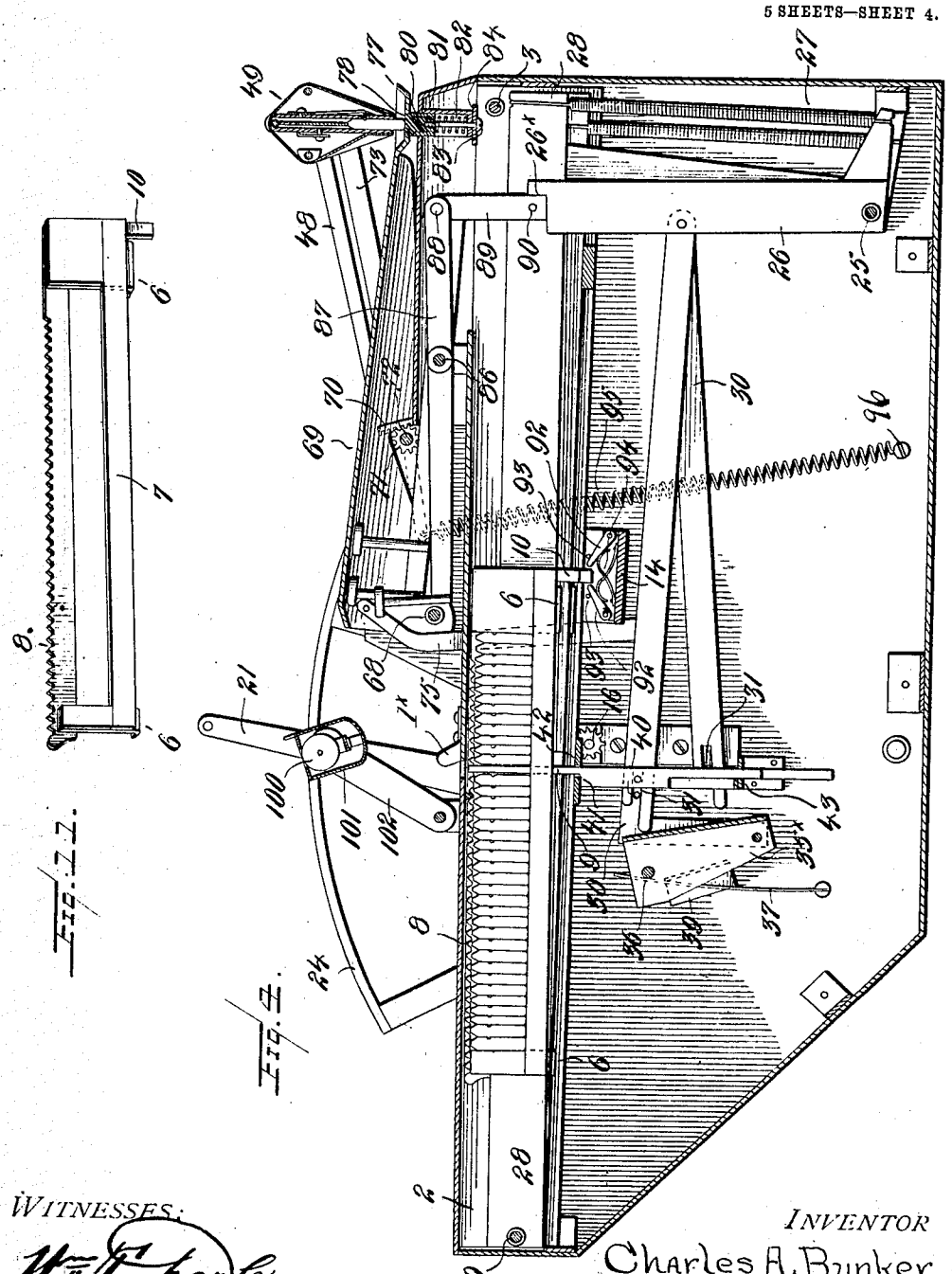


Fig. 2.



Fig. 1.

WITNESSES:

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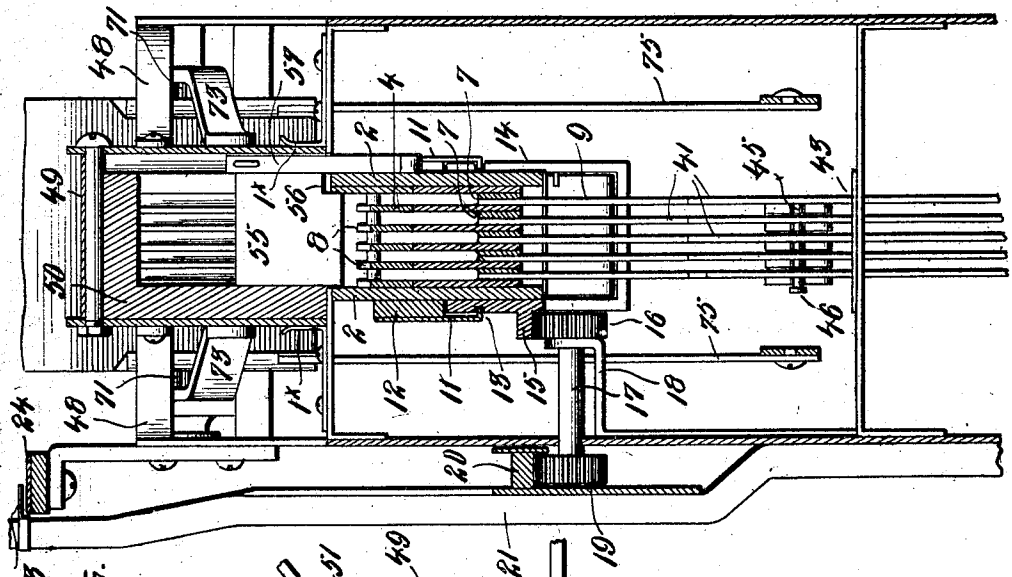


Fig. 5.

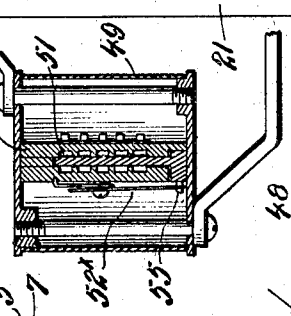


Fig. 7.

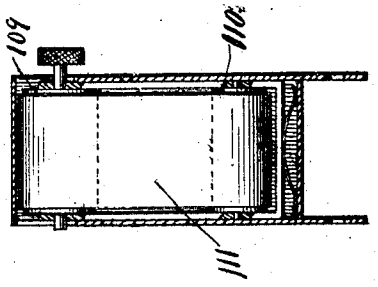


Fig. 10.

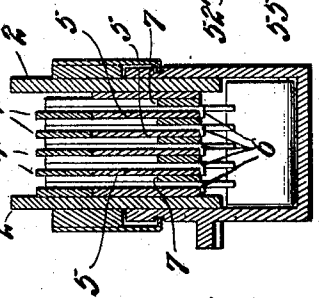


Fig. 8.

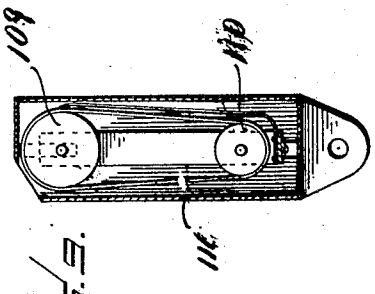


Fig. 9.

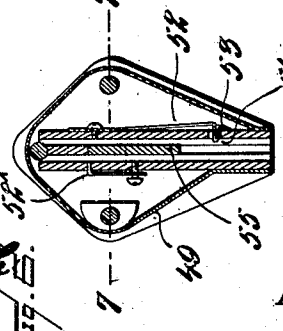


Fig. 6.

WITNESSES:

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Attorney

# UNITED STATES PATENT OFFICE.

CHARLES A. BUNKER, OF MARION, INDIANA.

## MACHINE FOR MARKING LAUNDRY.

No. 860,443. Specification of Letters Patent. Patented July 16, 1907.

Application filed April 18, 1907. Serial No. 369,029.

*To all whom it may concern:*

Be it known that I, CHARLES A. BUNKER, a citizen of the United States, residing at Marion, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in Machines for Marking Laundry; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in automatic type setting and distributing apparatus adapted especially for use in marking laundry, etc., and comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this application, and in which drawings:—

Figure 1 is a perspective view of my invention. Fig. 2 is a vertical sectional view through the casing, showing the parts in elevation. Fig. 3 is a vertical sectional view centrally and longitudinally through the apparatus, showing the type carriage in position to receive type. Fig. 4 is a sectional view longitudinally through the apparatus, showing the type and carrier thereof thrown toward the inking pad. Fig. 5 is a vertical sectional view taken on line 5—5 of Fig. 3. Fig. 6 is an enlarged detail sectional view through the type carrier. Fig. 7 is a sectional view on line 7—7 of Fig. 6. Fig. 8 is a cross sectional view through the apparatus for carrying the racks and type. Fig. 9 is a sectional view through the inking pad. Fig. 10 is a view of the inking pad taken in a plane at right angles to that shown in Fig. 9, and Fig. 11 is a detail view of a type carrying rack.

Reference now being had to the details of the drawings by numerals, 1 designates the casing of the apparatus which may be of any size or shape and made preferably of metal. Mounted longitudinally within said casing are the metallic plates 2 supported upon the rods 3 which pass through the side walls of the casing. Said plates 2 are spaced apart, as shown in Figs. 5 and 8 of the drawings, and between said plates a series of racks; designated by numerals 4, is mounted, a detail of one of said racks being shown in Fig. 11 of the drawings. Mounted in parallel relation to one another, intermediate the plates 2 is a series of metallic strips 5 which are spaced apart. The upper portion of each of said racks projects laterally and is adapted to rest upon and be supported by one of said strips 5. Each rack, the shank portion of which passes down alongside the face of a strip 5, has a hook portion 6 at its lower end extending underneath a partition or strip 5, the purpose of which hook portion is to prevent the rack being lifted out of place. A shoulder is formed upon corresponding faces of each of said racks, said shoulders being designated in Figs. 5 and 8 of the drawings by numerals 7, and upon which loosely mounted type are adapted to rest. Upon reference to Fig. 3 of the drawings, it will be noted that the upper edge of each rack is serrated, as at 8, forming means, which will presently be described, whereby a single rack may be held stationary during the operation of the apparatus and intermediate each pair of strips 5 is mounted a vertically movable type raising bar 9 which is preferably of a width equal to one-half the distance between the strips 5, as shown clearly in Fig. 5 of the drawings. When said bars are at their lowest normal positions, their upper ends will be either on a line with or slightly below the shoulders 7, and when said bars are raised, a type will be raised therewith into a suitable type carriage to be hereinafter fully described. Referring to Fig. 11 of the drawings, will be observed a finger 10 which projects downward from one end of each type carrying rack.

Referring to Fig. 5 of the drawings, will be seen angle plates 11 which are fastened to plates 12 upon the outer faces of the plates 2, the lower ends of said angle plates adapted to rest in grooves 13 formed in the outer faces of the yoke 14, which latter is U-shaped and its upright walls adapted to reciprocate against the outer faces of the plates 2. It will be noted, therefore, that the yoke is supported by the plates 11 and is adapted to have a sliding longitudinal movement, carrying therewith the several racks 4 which support the type. Formed integral with one of the side walls of said yoke is a horizontally disposed rack 15, shown clearly in Fig. 5 of the drawings, the teeth of which are engaged by a pinion 16 mounted upon a shaft 17 which is journaled in suitable bearings in the bracket arm 18 and the wall of the casing.

19 designates a pinion wheel fixed to the shaft 17 and is in mesh with the teeth of a curved segment bar 20 which is fixed to the operating lever 21. Said operating lever 21 is pivoted at its lower end upon a shaft 22, and has an indicating pointer 23 projecting from one face thereof, as shown in Figs. 3 and 5 of the drawings, said indicating pointer adapted to move over and adjacent to the surface of the curved scale or dial 24 upon which appear the letters or other characters corresponding to the font of type held by each rack.

Mounted upon a shaft 25, supported by the side walls of the casing, is a series of angle levers 26 to each of

which levers is fastened a spring 27, the upper end of each of said springs being secured to the swinging end of a bar 28, there being as many of said bars 28 as there are type racks. Each of the bars 28 is pivotally mounted upon a pin 29 and has a slight tilting movement. To each of said angle levers 26 is pivotally connected a bar 30, the free ends of which are slotted longitudinally, as at 31. Connecting the upper edges of the plates 2 is an angled cross-piece $2^x$, shown in cross section in Fig. 3 of the drawings, and which is provided to receive the serrations in the upper edges of the type carrying racks for the purpose of holding one or another of said racks from longitudinal movement after a type has been raised from the racks into the type carriage.

Mounted upon pins 32, which are carried by the side walls of the casing, are the L-shaped levers 33, the forward swinging ends of which carry a rod 34 upon which the bracket-shaped member 35 is pivotally mounted. Said bracket-shaped member has its two parallel sides supporting a pin 36, one end of which projects beyond the wall in which it is pivotally mounted and against said projecting end a leaf spring 37, which is fastened to a lug 38 upon the casing, is adapted to bear. Fixed to one wall of the casing is an angle plate 39, set preferably at an inclination, as shown in Fig. 3 of the drawings, and the upper portion of said spring bears yieldingly against the top of said angle plate. Said bracket member 35 is of such a width as to turn upon its pivot between the two parallel disposed angle levers 30 between which it is adapted to swing as the bars descend to their lowest limit.

Connecting the two bars 30 is a pin 40 which is received in any one of the slots 31 formed in the ends of the bars 30 when the same are moved forward by the angle levers 26. It will be noted that a portion of one end of each lever 30 projects slightly beyond the marginal edge of the slot and is adapted to be thrust underneath the pin 40 so that whenever the angle levers 33 are raised, any one or more of the bars 30, which may have been driven forward so that the slot in its end receives the pin 40, said bar or bars 30 will be raised with the angle bars 33.

It will be noted that each type lifting bar 9 has a shoulder 41 upon its edge and is adapted to contact with a cross-piece 42 upon the casing to limit the upper movement of said type lifting bar and each of said bars 9 has a second shoulder 43 designed to contact with an angle plate 44 to limit its downward movement, the lower portion of each bar 9 passing through a slot in the angle plate 44, as shown clearly in Fig. 3 of the drawings. Upon reference to Fig. 5 of the drawings, it will be noted that each of said type raising bars is provided with a laterally projecting lug or pin 45 which is normally positioned in a slot 31 of a bar 30 and provides means whereby each type raising bar may be raised as the bar 30 is tilted upward. One of said pins, designated by numeral 46, is provided with a head for the purpose of holding the two bars 30 and 9 together.

Pivotally connected to the casing upon the pins 47 are the bars 48 which are in turn pivotally connected to a type carriage 49, detail views of which are shown in Figs. 6 to 8, inclusive, of the drawings. Referring to said views, it will be noted that the interior of said type carriage is provided with two plates 50 which are spaced apart and the inner surface of each of said plates is provided with grooves 51 to receive and guide type as they are raised from the type racks. Fastened to the face of one of said plates is a spring 52, the end of which is bent at an angle at 53 and projects through an aperture 54 formed in the plate and in the path of a type as it is raised into a groove or slot 51. Said angled portion of the spring is adapted to engage the recess formed in the edge of the type for the purpose of supporting and holding the type within the carriage after being raised from the type rack by means of one of the bars 9. A spring $52^x$ is fastened to one of said bars 50 and its other end is fastened to a pin $55^x$, which projects from the plate 55, the office of said spring $52^x$ being to normally hold the plate 55 at its highest limit.

55 designates an angled plate having a recess 56 in one corner thereof, as clearly shown in Fig. 5 of the drawings, and to said plate 55 is fastened a hooked bar 57, which projects down along one side of a plate 2, as shown clearly in Fig. 2 of the drawings. Pivotally connected to one of the angle levers 33 is a bar 58 having a hook 59 at its upper end which is positioned in the path of the hook 57 and so arranged that when the bar 58 is moved downward, it will draw the hook 57 therewith for the purpose of returning type from the carriage to the type rack. Said bar 58 is guided in its vertical movements by means of the bracket arm 60 and is provided with a recess 61 upon one edge thereof which, when the bar 58 is raised to its highest position, will be positioned opposite said bracket arm 60.

62 is a coil spring fastened at its lower end to said shaft 22, and is also fastened to the pivot pin 63 which connects the bar 58 with an angle lever 33. It will be noted that the angle lever 33 to which the bar 58 is connected is provided with a slot 64 in which the pivot pin 63 has a slight play, thereby allowing the bar 58 to tilt independent of the lever 33. One end of the coil spring 62 is extended and is connected to the bar 58, as shown clearly in Fig. 2 of the drawings, the purpose of which extension is to cause the bar 58, when at its highest position, to be tilted back slightly so that the hook at its upper end will be free from the hook 57 to allow the type carriage to move without interference from the hook 59 during the printing operation. It will thus be noted that the function of the spring 62 is twofold, serving to normally return the angle levers 33 to their lowest position and also to tilt, at the proper moment, the bar 58. Fixed to one of said angle levers 33 is a plate $33^x$ with its free end outwardly bent and is adapted to serve as a stop to limit the throw of the lever 58 in one direction. Mounted upon the top of the casing are the guide plates $1^x$ with their free ends upwardly turned and serving to guide the carriage as it is thrown back into the position shown in Fig. 2 of the drawings.

Mounted upon a rod 68 which is supported by the walls of the casing is a swinging member 69 which has two curved racks 70 projecting from one edge thereof, which racks are adapted to mesh with the pinions 71 which are fixed to the shaft 72 which is also mounted in suitable bearings in the side of the casing.

73 designate bars which are fixed at corresponding ends to the rod 72 and their opposite ends are pivotally connected at 74 upon pins projecting from the type carriage. By the provision of the bars 48 and 73, pivotally connected as shown and described, it will be understood that, as the said bars are swung in one direc-

tion or the other, the carriage will be held at all times in an upright position and be held from rotation in its movement.

75 designate two angle bars which are pivotally connected at their lower ends to the angle levers 33 and their upper ends are pivotally connected at 76 to the swinging member 69. The free swinging end of the member 69 is provided with a slot 78 formed therein through which the type, designated by numerals 79 and shown clearly in Fig. 4 of the drawings are adapted to come in contact with a cushion member 80 which is mounted in a socket member 81 held yieldingly in the position shown in Fig. 4 of the drawings, by means of a spring 82. Said spring 82 is mounted upon a pin 83 supported by a cross-piece 84.

Fixed to the plates 2 are the ears 85 supporting a pin 86 forming a bearing for the key levers 87, which levers are also pivotally connected by means of the pins 88 with the links 89, said links being pivotally connected at 90 with the plates 28. It will be noted that each of the angle levers 26 has a notch $26^{x}$ formed at its upper end for the purpose of allowing the lever to swing underneath a link 89 in the manner shown in Fig. 4 of the drawings, when it is desired to hold a key lever depressed.

It will be observed that a key lever is provided for each type rack and all are mounted upon a common pivotal bearing and, as each key lever is depressed, one or another of the angle levers 26 will be allowed to assume a position shown in Fig. 4 of the drawings, by means of the springs 27 which will throw the levers 26 forward when the pivotal plates 28 are raised.

Referring to Fig. 3 of the drawings, will be noted the two spring-pressed dogs 92, each of which is held against a pin 93 by means of a spring 94, and the free ends of said dogs are positioned in the paths of the projections 10 upon said type racks and are provided for the purpose of justifying the racks.

95 designates a coil spring fastened to the casing at 96 and its upper end is fastened to a link 97 which is pivotally mounted upon the pin 72. Mounted upon one of the levers 73 is a pin 98 which is adapted to contact with the link 97 when the type carriage is swung to the position shown in Fig. 4 of the drawings, and is adapted to cause the link 97 to tilt to put the spring 95 under tension as the type carriage swings to the position shown in said Fig. 4, and when thus under tension, will serve to raise the type carriage from the cushion 78 after an impression has been made upon an article held upon said cushion. It will be noted that said spring 95 has no function during the raising of the type carriage from the position in which it receives the type until it arrives at a vertical position and when the lug carried by one of the levers 73 comes in contact with said link 97.

Projecting from the inner face of the bar 73 is a pin 99, and $70^{\times}$ designates a shoulder projecting from the outer face of the member 69 and is shown in the drawings as being concaved on its lower edge and is adapted to swing over the pin 99 for the purpose of preventing the type carriage being raised while the member 69 is in the position shown in Fig. 2 of the drawings. The type carriage will also be locked in the position shown in Fig. 2 of the drawings until said member 69 is swung down so that the teeth of the rack 70 will engage the teeth of the pinion 71, after which, by the rotary movement of the shaft 72, the type carriage, through the connections shown and described, will be swung over from the position shown in Fig. 2 of the drawings to that illustrated in Fig. 4.

The inking apparatus comprises a roller 100 which is journaled in a suitable casing 101 which is provided with arms 102 and 103, respectively, the latter of said arms being longer than the former and having a spring 104 attached thereto, which spring is fastened to the rod 3 and serves to normally hold the inking pad in the path of the type carriage as it is swung back to ink the type carried thereby. A link 105 is pivotally connected to the long arm 103 and also pivotally connected to an arm 106 of a crank shaft 107 which has a bearing in the wall of the casing and to the projecting portion of said shaft 107 is fastened an operating lever 108, whereby the shaft 107 may be rocked for the purpose of swinging the inking apparatus out of the path of the carriage when it is wished to swing the type carriage into the position shown in Fig. 2 of the drawings, to receive or discharge type.

In Figs. 9 and 10 of the drawings, I have shown a slight modification of an inking apparatus which may be employed in place of that illustrated in Figs. 3 and 4 of the drawings, said modification consisting of two rollers 109 and 110 about which an endless inking ribbon 111 passes.

In operation, the operating lever is moved so that the indicating pointer thereon will be positioned opposite any letter or character which it is desired to print, and which movement will cause all of the type racks to move therewith. Any one of the key levers is then depressed which will cause the lever 28 connected therewith to be raised up against the tension of the spring 27. As the lever 28 is raised, a rack bar with a font of type corresponding to the characters upon the dial will be raised to its highest position by reason of the various racks resting upon the upper edges of the levers 28. When a lever 28 rises sufficiently to allow the lower end of the link 89 to clear the upper portion of the angle lever 26, the spring 27 will cause the lever 26 to swing forward to the position shown in Fig. 4 of the drawings. As a type rack is raised by this movement, one of the serrations in the upper edge thereof will be engaged by the angled cross-bar $2^{\times}$, shown in Fig. 2 of the drawings, and will hold said rack from longitudinal movement. Said movement described will bring a certain type character corresponding to the one opposite the indicating pointer to be in readiness to be raised into the type carriage by a subsequent movement of the apparatus. To bring another type into position to be raised into the carriage, the operating lever is swung opposite the character which is wished to be printed, and another of the key levers is depressed, and the same operation is performed, causing a second type rack to be raised and locked in such position as to cause the type to be raised into the carriage. This operation is repeated until any of the five racks have been similarly set, after which the member 69 is swung toward the cushion 78, causing the angle levers 33 to be raised and with them the respective bars 30 which have been driven forward so that their slots will receive the pin 40. As the angle levers 30 are raised, the type raising

bars 9, coming in contact with the lower ends of the type underneath the same, will cause the type to be pushed up into the carriage and as the type are raised into the carriage, their upper ends, which are preferably slightly tapered, will contact with the angled portions 53 of the springs 52 and cause the latter to be thrown out of the paths of the type, but when the notches or recesses in the edge of the type come opposite the angled portions 53 of the springs, said angled portions 53 will spring into the recesses and form means for supporting the type. When the member 69 swings forward to such a position that the teeth of the racks thereon will engage the pinion 71, the shaft 72 will be caused to rotate and the bars 73, which are fixed to the shaft 72, will cause the type carriage to be swung from the position shown in Fig. 2, where it receives the type, to the position shown in Fig. 4 of the drawings, where the impression is made upon the surface held upon the cushion 78. As the member 69 is swung to the position shown in Fig. 3 of the drawings, the spring 95 does not act upon the same, but when the member 69 is swung farther toward the cushion 78, the lug 98 upon the bar 73 will contact with the link 97 and cause the spring 95 to be put under tension, which tension is utilized in causing the carriage to swing back against the inking pad.

When it is desired to distribute the type, the operator presses upon the hand lever 108, which through the connections shown and described, will cause the inking apparatus to be thrown out of the path of the type carriage.

When the carriage has been returned to the position shown in Fig. 2 of the drawings and it is desired to distribute the type, the member 69 is swung to a vertical position, causing the angle bars 33 to be thrown downward and as the levers 33 are thrown downward, the bars 58 with their upper hooked ends will engage the hooks 57 and cause the plate 55 in the type carriage to be drawn down under the tension of the spring 52× and push the type out of the carriage down against the ends of the type raising bars 9. It will be understood that when the type are raised by said bars, the latter are held in the spaces formerly occupied by the type and are thus held until the type is to be replaced in its proper position within the rack. As the type is pushed back in its place upon the rack, the type raising bars are withdrawn to their lowest limit.

In order to return the bars 30 to their normal positions, the bracket member 35, which has been thrown by the spring 37 so that the projecting end of the pins 36 will come in contact with the inclined faces of the angle plate 39, will, as the levers 33 are moved downward, cause said bracket member 35 to bear against the ends of the levers 30 and push the same back to their normal starting positions so that the slots at the ends thereof will free the pin 40 carried by said angle levers. The backward movement of the bars 30 will cause the angle levers 26 to resume their normal positions, the levers 28 will be drawn down by the springs 27 to their normal positions, and the key levers will be thrown back to the positions shown in Fig. 3 of the drawings. As the levers 28 are drawn down, the projections 10 upon the type racks will be thrown down so that when the operating lever is swung back to its starting position, all of the type carriages will be drawn back to their normal positions by their being engaged by the dogs 93, it being understood that when the rack bars are moved in one direction, the projections will pass idly over the dogs positioned in one direction but will catch upon the oppositely disposed dogs when the rack is moved in the opposite direction.

What I claim is:—

1. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising a dial and indicating pointer, a type carriage, reciprocating type carrying racks, means for transferring type from said rack to said carriage, means for holding the carriage from rotation as it moves to and from a surface to be printed, and mechanism for returning the type to said racks, as set forth.

2. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising a dial and an indicating pointer, series of reciprocating type carrying racks, a swinging carriage, means for transferring type from the racks to said carriage, means for holding the carriage from rotation as it moves to and from a surface to be printed, means for holding the type within said carriage, and mechanism for releasing the type from the carriage and returning the same to said racks, as set forth.

3. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising a dial and indicating pointer, a swinging type carriage, reciprocating type carrying racks movable with said indicating pointer, means for transferring type from said racks to the carriage means for holding the carriage from rotation as it moves to and from a surface to be printed, and means for releasing and returning the type to said racks, as set forth.

4. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising a dial, a pivotal lever, a pointer thereon, a swinging type carriage, a series of reciprocating type carrying racks and connections between the same and said lever, whereby the two may be moved in unison, means for transferring type from the racks to said carriage means for holding the carriage from rotation as it moves to and from a surface to be printed, and mechanism for returning the type from the carriage to said racks, as set forth.

5. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising a dial, a pivotal lever, a pointer thereon, a swinging type carriage, a series of reciprocating type carrying racks and connections between the same and said lever, whereby the two may be moved in unison, reciprocating type lifting bars, means for actuating said bars whereby type may be transferred from the racks to said carriage, means for holding the type within the carriage, and mechanism for returning the type to said racks, as set forth.

6. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising a dial, a pivotal lever, a pointer thereon, a swinging type carriage, a series of reciprocating type carrying racks and connections between the same and said lever, whereby the two may be moved in unison, reciprocating type lifting bars, means for actuating said bars whereby type may be transferred from the racks to said carriage, a spring having an angled portion adapted to engage a recess in the edge of the type to hold the same within the carriage, means for releasing the type from the carriage and returning the same to said racks, as set forth.

7. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising a dial, a pivotal lever, a pointer thereon, a swinging type carriage, a series of reciprocating type carrying racks and connections between the same and said lever, means for raising and locking the racks independent of each other, mechanism for transferring type, when the rack is raised, from the rack to the carriage, and means for returning the type from the carriage to the racks, as set forth.

8. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising a dial, a pivotal lever, a pointer thereon, a swinging type carriage, a series of reciprocating type carrying racks and connections between the same and said lever, means for raising and locking the racks independent of each other, mechanism for transferring type, when the rack is raised, from the rack to the carriage, and maintain the space from which the type was withdrawn, and mechanism for returning the type to the space from which it was transferred, as set forth.

9. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising a dial, a pivotal lever, an indicating pointer thereon, a swinging type carriage, a series of independent reciprocating type carrying racks, serrations upon the upper edges of said racks, means for engaging said serrations whereby a rack may be held from longitudinal movement, longitudinally movable bars designed to transfer a type from a rack to said carriage, and means for returning the type from the carriage to said racks, as set forth.

10. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, a spring-actuated type-ejecting plate mounted within said carriage, and means for moving said plate to return the type to the racks, as set forth.

11. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, and means actuated by the depression of the key levers for transferring the type from said type racks to the carriage, as set forth.

12. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, a series of spring-pressed angle levers adapted to be actuated as the key levers are depressed, and means operated by said angle levers for causing type to be transferred from the type carrying racks to said carriage, as set forth.

13. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, a series of spring-pressed angle levers adapted to be actuated as the key levers are depressed, bars pivotally connected to said angle levers and having their forward ends slotted, type raising means actuated by the slotted ends of said bars whereby type may be transferred from the type carrying racks to the carriage, and means for raising the slotted bars, as set forth.

14. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, a series of spring-pressed angle levers adapted to be actuated as the key levers are depressed, bars pivotally connected to said angle levers and having their forward ends slotted, type raising means actuated by the slotted ends of said bars whereby type may be transferred from the type carrying racks to the carriage, means for raising the slotted bars, and means bearing against the ends of the slotted bars for returning the angle levers to their starting positions, as set forth.

15. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, a series of pivotal key levers, links connecting said key levers with the type rack carrying levers, a series of pivotally mounted angle levers, springs connecting said angle levers with the levers carrying said racks, the upper ends of the angle levers adapted, as the rack carrying levers are raised, to be thrown by said springs underneath said links, whereby the racks may be held at their highest limits, bars connected to the angle levers, type raising mechanism actuated by said bars, and means connected to said bars for raising the latter, as set forth.

16. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, a series of pivotal key levers, links connecting said key levers with the type rack carrying levers, a series of pivotally mounted angle levers, springs connecting said angle levers with the levers carrying said racks, the upper ends of the angle levers adapted, as the rack carrying levers are raised, to be thrown by said springs underneath said links, whereby the racks may be held at their highest limits, bars connected to the angle levers, and having their free ends slotted, vertically movable type raising bars, actuated by said slotted bars, means for limiting the vertical movements of the type raising bars, and mechanism for raising and lowering the slotted bars, as set forth.

17. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, a series of pivotal key levers, links connecting said key levers with the type rack carrying levers, a series of pivotally mounted angle levers, springs connecting said angle levers with the levers carrying said racks, the upper ends of the angle levers adapted, as the rack carrying levers are raised, to be thrown by said springs underneath said links, whereby the racks may be held at their highest limits, bars connected to the angle levers, and having their free ends slotted, vertically movable type raising bars actuated by said slotted bars, means for limiting the vertical movements of the type raising bars, a pivotal swinging member mounted upon the casing, and means actuated thereby for raising and lowering said slotted bars, as set forth.

18. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, a series of pivotal key levers, links connecting said key levers with the type rack carrying levers, a series of pivotally mounted angle levers, springs connecting said angle levers with the levers carrying said racks, the upper ends of the angle levers adapted, as the rack carrying levers are raised, to be thrown by said springs underneath said links, whereby the racks may be held at their highest limits, bars connected to the angle levers and having their free ends slotted, vertically movable type raising bars actuated by said slotted bars, means for limiting the vertical movements of the type raising bars, a pivotal swinging member mounted upon the casing, means actuated thereby for raising and lowering said slotted bars, rack teeth upon said swinging member, a rotatable shaft mounted in suitable bearings, pinions fixed to said

shaft and adapted to be actuated by said rack bars as the swinging member is thrown down from an upright position, and means actuated by the rotation of the pinion carrying shaft for swinging the type carriage from the position where it receives the type to the impression surface where the printing is effected, and returning the same, as set forth.

19. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, a series of pivotal key levers, links connecting said key levers with the type rack carrying levers, a series of pivotally mounted angle levers, springs connecting said angle levers with the levers carrying said racks, the upper ends of the angle levers adapted, as the rack carrying levers are raised, to be thrown by said springs underneath said links, whereby the racks may be held at their highest limits, bars, connected to the angle levers and having their free ends slotted, vertically movable type raising bars actuated by said slotted bars, means for limiting the vertical movements of the type raising bars, a pivotal swinging member mounted upon the casing, means actuated thereby for raising and lowering said slotted bars, rack teeth upon said swinging member, a rotatable shaft mounted in suitable bearings, pinions fixed to said shaft and adapted to be actuated by said rack bars as the swinging member is thrown down from an upright position, links fixed to the pinion carrying shaft and pivotally connected to said carriage and so arranged that the type carriage may be swung in an upright position from the location where it receives the type to the impression surface, as set forth.

20. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, a series of pivotal key levers, links connecting said key levers with the type rack carrying levers, a series of pivotally mounted angle levers, springs connecting said angle levers with the levers carrying said racks, the upper ends of the angle levers adapted, as the rack carrying levers are raised, to be thrown by said springs underneath said links, whereby the racks may be held at their highest limits, bars connected to the angle levers and having their free ends slotted, vertically movable type raising bars actuated by said slotted bars, means for limiting the vertical movements of the type raising bars, a pivotal swinging member mounted upon the casing, means actuated thereby for raising and lowering said slotted bars, rack teeth upon said swinging member, a rotatable shaft mounted in suitable bearings, pinions fixed to said shaft, and adapted to be actuated by said rack bars as the swinging member is thrown down from an upright position, links fixed to the pinion carrying shaft and pivotally connected to said carriage and so arranged that the type carriage may be swung in an upright position from the location where it receives the type to the impression surface, and mechanism for putting the swinging member under tension as it approaches the location where the printing is effected, as set forth.

21. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, a series of pivotal key levers, links connecting said key levers with the type rack carrying levers, a series of pivotally mounted angle levers, springs connecting said angle levers with the levers carrying said racks, the upper ends of the angle levers adapted, as the rack carrying levers are raised, to be thrown by said springs underneath said links, whereby the racks may be held at their highest limits, bars connected to the angle levers and having their free ends slotted, vertically movable type raising bars actuated by said slotted bars, means for limiting the vertical movements of the type raising bars, a pivotal swinging member mounted upon the casing, means actuated thereby for raising and lowering said slotted bars, rack teeth upon said swinging member, a rotatable shaft mounted in suitable bearings, pinions fixed to said shaft and adapted to be actuated by said rack bars as the swinging member is thrown down from an upright position, links fixed to the pinion carrying shaft and pivotally connected to said carriage and so arranged that the type carriage may be swung in an upright position from the location where it receives the type to the impression surface, one of said links having a lug, a bar pivotally connected to the pinion carrying shaft, and a spring fixed at one end to the casing and its other end to the pinion carrying shaft and adapted to be actuated by said lug as the swinging member is thrown toward the surface to be printed, as set forth.

22. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, a series of spring-pressed angle levers adapted to be actuated as the key levers are depressed, bars pivotally connected to said angle levers and having their forward ends slotted, the lower wall of each slot projecting beyond the upper wall, a series of vertically reciprocating type raising bars, means for limiting the movements of said type raising bars, a pin projecting from each of the latter and each engaging a slot in the ends of said bars, L-shaped levers pivotally mounted upon the casing, a pin connecting the lower ends of said L-shaped levers, said pin adapted to raise the slotted bars, means for raising said L-shaped bars, and mechanism for returning the slotted bars and pivotal angle levers to which they are connected to their normal positions, as set forth.

23. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, a series of spring-pressed angle levers adapted to be actuated as the key levers are depressed, bars pivotally connected to said angle levers and having their forward ends slotted, the lower wall of each slot projecting beyond the upper wall, a series of vertically reciprocating type raising bars, means for limiting the movements of said type raising bars, a pin projecting from each of the latter and each engaging a slot in the ends of said bars, L-shaped levers pivotally mounted upon the casing, a pin connecting the lower ends of said L-shaped levers, said pin adapted to raise the slotted bars, mechanism for returning the slotted bars and pivotal angle levers to which they are connected to their normal positions, a swinging member mounted upon the casing, and links connecting the same with said L-shaped levers, as set forth.

24. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, a series of spring-pressed angle levers adapted to be actuated as the key levers are depressed, bars pivotally connected to said angle levers and having their forward ends slotted, the lower wall of each slot projecting beyond the upper wall, a series of vertically reciprocating type raising bars, means for limiting the movements of said type raising bars, a pin projecting from each of the latter and each engaging a slot in the ends of said bars, L-shaped levers pivotally mounted upon the casing, a pin connecting the lower ends

of said L-shaped levers, said pin adapted to raise the slotted bars, means for raising said L-shaped bars, a bracket member pivotally connected to the L-shaped levers, a pin carried by the flanges of said bracket member, a spring fixed to the casing and bearing against said pin supported by the bracket member, angle plates fastened in diagonal positions to the walls of the casing, said spring adapted to throw the pin carried by said bracket member over the upper edges of said angle plates, whereby as the L-shaped levers are thrown downward, the face of the bracket member will contact with the ends of the slotted bars to return the same and the pivotal angle levers connected thereto to their normal positions, as set forth.

25. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, a series of spring-pressed angle levers adapted to be actuated as the key levers are depressed, bars pivotally connected to said angle levers and having their forward ends slotted, the lower wall of each slot projecting beyond the upper wall, a series of vertically reciprocating type raising bars, means for limiting the movements of said type raising bars, a pin projecting from each of the latter and each engaging a slot in the ends of said bars, L-shaped levers pivotally mounted upon the casing, a pin connecting the lower ends of said L-shaped levers, said pin adapted to raise the slotted bars, mechanism for returning the slotted bars and pivotal angle levers to which they are connected to their normal positions, a swinging member mounted upon the casing, links connecting the same with said L-shaped levers, a type ejecting plate mounted within the carriage and provided with a hooked end, and a reciprocating bar having a hooked end adapted to engage the hook at the end of said type ejecting plate and pivotally connected to one of said L-shaped levers, as set forth.

26. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, a series of spring-pressed angle levers adapted to be actuated as the key levers are depressed, bars pivotally connected to said angle levers and having their forward ends slotted, the lower wall of each slot projecting beyond the upper wall, a series of vertically reciprocating type-raising bars, means for limiting the movements of said type raising bars, a pin projecting from each of the latter and each engaging a slot in the ends of said bars, L-shaped levers pivotally mounted upon the casing, a pin connecting the lower ends of said L-shaped levers, said pin adapted to raise the slotted bars, mechanism for returning the slotted bars and pivotal angle levers to which they are connected to their normal positions, a swinging member mounted upon the casing, links connecting the same with said L-shaped levers, a type ejecting plate mounted within the carriage and provided with a hooked end, a reciprocating bar having a hooked end adapted to engage the hook at the end of said type ejecting plate and pivotally connected to one of said L-shaped levers, said hooked bar guided in its upright movements and having a recess in one edge thereof, a pin over which said hooked bar is adapted to be fulcrumed and tilted as the L-shaped levers are raised to allow the carriage to swing free thereof, and a spring for tilting said hooked bar, as set forth.

27. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, means for transferring type from the racks to the carriage, a series of pivotal levers upon which said racks are mounted, key operated mechanism for raising said levers carrying the type racks, a series of spring-pressed angle levers adapted to be actuated as the key levers are depressed, bars pivotally connected to said angle levers and having their forward ends slotted, the lower wall of each slot projecting beyond the upper wall, a series of vertically reciprocating type raising bars, means for limiting the movements of said type raising bars, a pin projecting from each of the latter and each engaging a slot in the ends of said bars, L-shaped levers pivotally mounted upon the casing, a pin connecting the lower ends of said L-shaped levers, said pin adapted to raise the slotted bars, mechanism for returning the slotted bars and pivotal angle levers to which they are connected to their normal positions, a swinging member mounted upon the casing, links connecting the same with said L-shaped levers, a type ejecting plate mounted within the carriage and provided with a hooked end, a reciprocating bar having a hooked end adapted to engage the hook at the end of said type ejecting plate and pivotally connected to one of said L-shaped levers, said hooked bar guided in its upright movements and having a recess in one edge thereof, a pin over which said hooked bar is adapted to be fulcrumed and tilted as the L-shaped levers are raised to allow the carriage to swing free thereof, and a spring fixed to said L-shaped levers and having an end serving to tilt said hooked bar as the L-shaped levers are raised to their highest limit, as set forth.

28. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, pivotal spring-pressed levers upon which said racks are mounted, means for raising and lowering said levers, each of said racks having a lug projecting from an end thereof, spring-actuated pivotal dogs adapted to normally engage said lugs to cause the racks to move together when the racks are at their lowest limit, means for transferring type from the racks to said carriage, and mechanism for returning the type from the carriage to the racks, as set forth.

29. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, pivotal spring-pressed levers upon which said racks are mounted, means for raising and lowering said levers, each of said racks having a lug projecting from an end thereof, spring-actuated pivotal dogs adapted to normally engage said lugs to cause the racks to move together when the racks are at their lowest limit, means for transferring type from the racks to said carriage, mechanism for returning the type from the carriage to the racks, a swinging inking pad mounted upon the casing, and means for throwing the same out of the path of said carriage, as set forth.

30. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a series of independent reciprocating type carrying racks, pivotal spring-pressed levers upon which said racks are mounted, means for raising and lowering said levers, each of said racks having a lug projecting from an end thereof, spring-actuated pivotal dogs adapted to normally engage said lugs to cause the racks to move together when the racks are at their lowest limit, means for transferring type from the racks to said carriage, mechanism for returning the type from the carriage to the racks, a swinging inking pad mounted in the casing, a key lever fixed thereto, and link connections between said rock shaft and inking pad, whereby the same may be thrown out of the path of the type carriage, as set forth.

31. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a pivotally mounted operating lever having a housing, a concaved rack bar underneath the roof of said housing, a shaft mounted within the casing, pinion wheels fixed to said shaft, one of which pinion wheels engages said concaved rack, a yoke, a horizontally disposed rack bar engaging one of said pinions, said yoke having slots in the

vertical walls thereof, angle plates supported within the casing and engaging said slots whereby said yoke is supported and guided in its reciprocating movements, a series of pivotal spring-actuated levers supported within said yoke, a series of type racks supported upon said levers and held thereon, a swinging type carriage, means for transferring type from the racks to the carriage, and mechanism for returning the type to the racks, as set forth.

32. An automatically operated type setting and distributing apparatus for laundry markers, etc., comprising an operating lever, a pointer thereon, a dial, a swinging type carriage, a pivotally mounted operating lever having a housing, a concaved rack bar underneath the roof of said housing, a shaft mounted within the casing, pinion wheels fixed to said shaft, one of which pinion wheels engages said concaved rack, a yoke, a horizontally disposed rack bar engaging one of said pinions, said yoke having slots in the vertical walls thereof, angle plates supported within the casing and engaging said slots whereby said yoke is supported and guided in its reciprocating movements, a series of pivotal spring-actuated levers supported within said yoke, a series of type carrying racks each of which is recessed upon its face and having a shouldered portion adapted to rest upon one of said levers, the lower portion of each rack being bent at an angle and adapted to hold the rack from vertical movement independent of the levers upon which they are supported, as set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CHAS. A. BUNKER.

Witnesses:

A. L. HOUGH,

FRANKLIN H. HOUGH.