

L. M. TODD & C. G. TIEFEL.

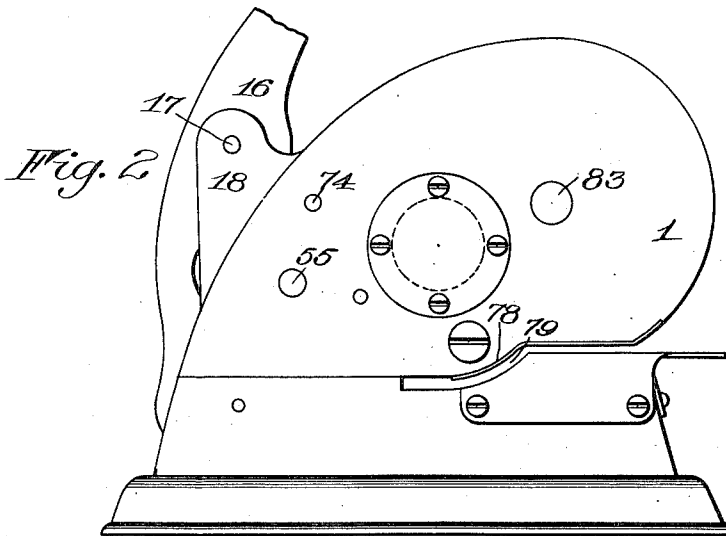
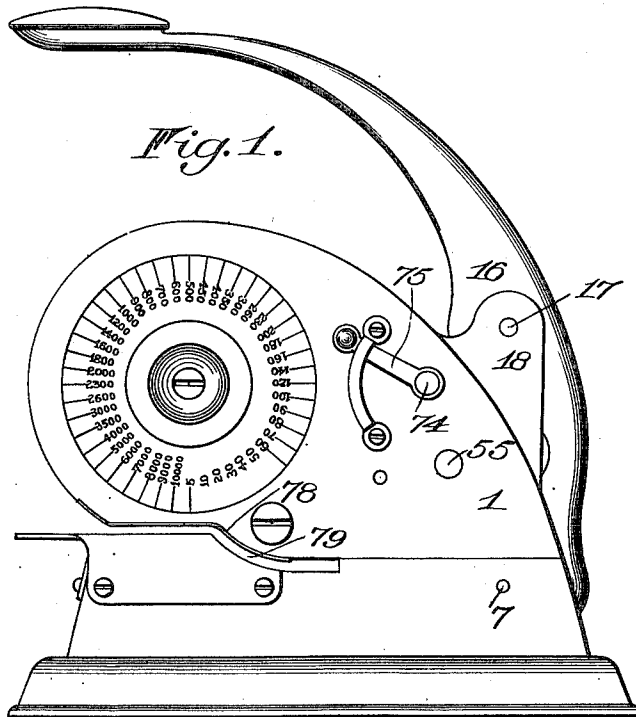
CHECK PROTECTOR.

APPLICATION FILED MAY 15, 1911.

1,030,690.

Patented June 25, 1912.

6 SHEETS-SHEET 1.



Witnesses

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6 SHEETS—SHEET 2.

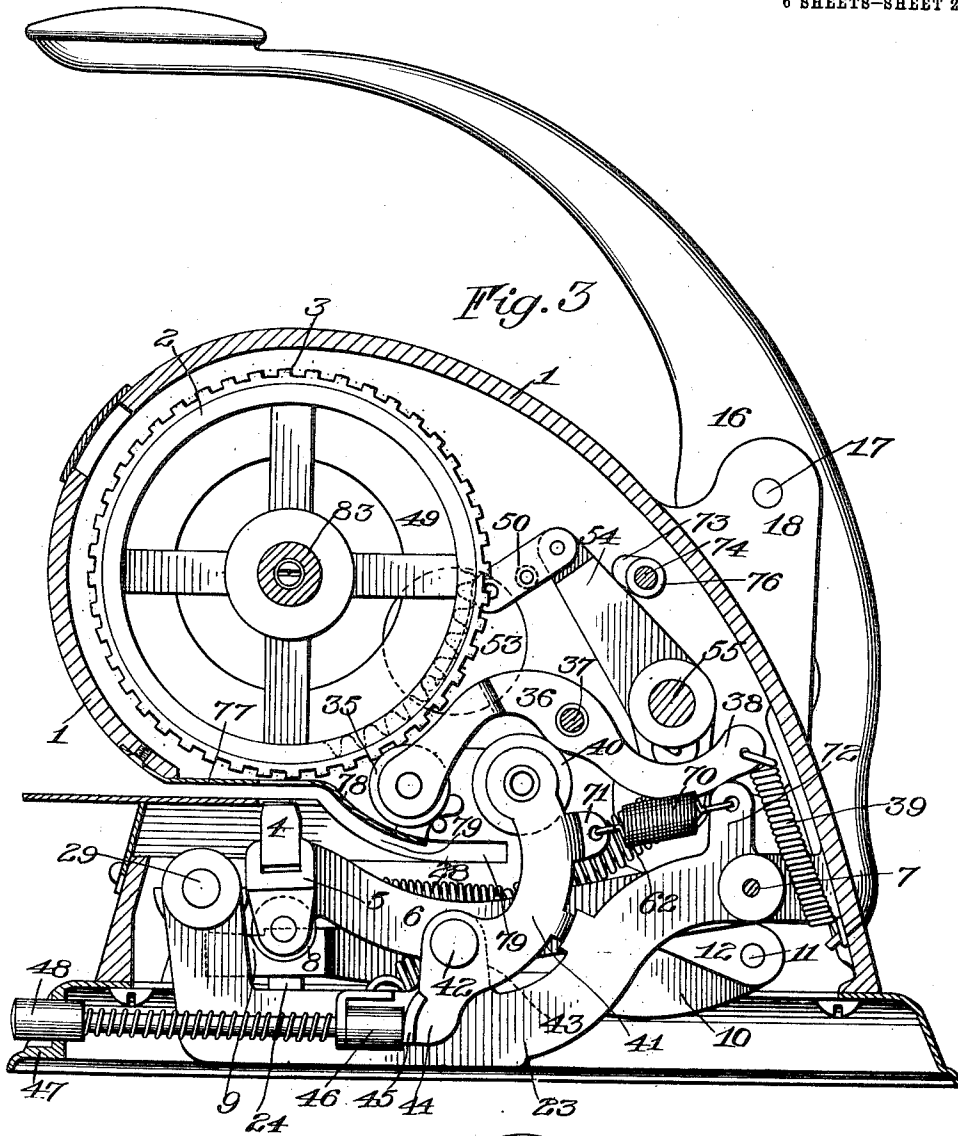
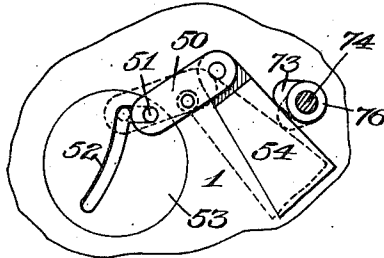


Fig. 14



Witnesses

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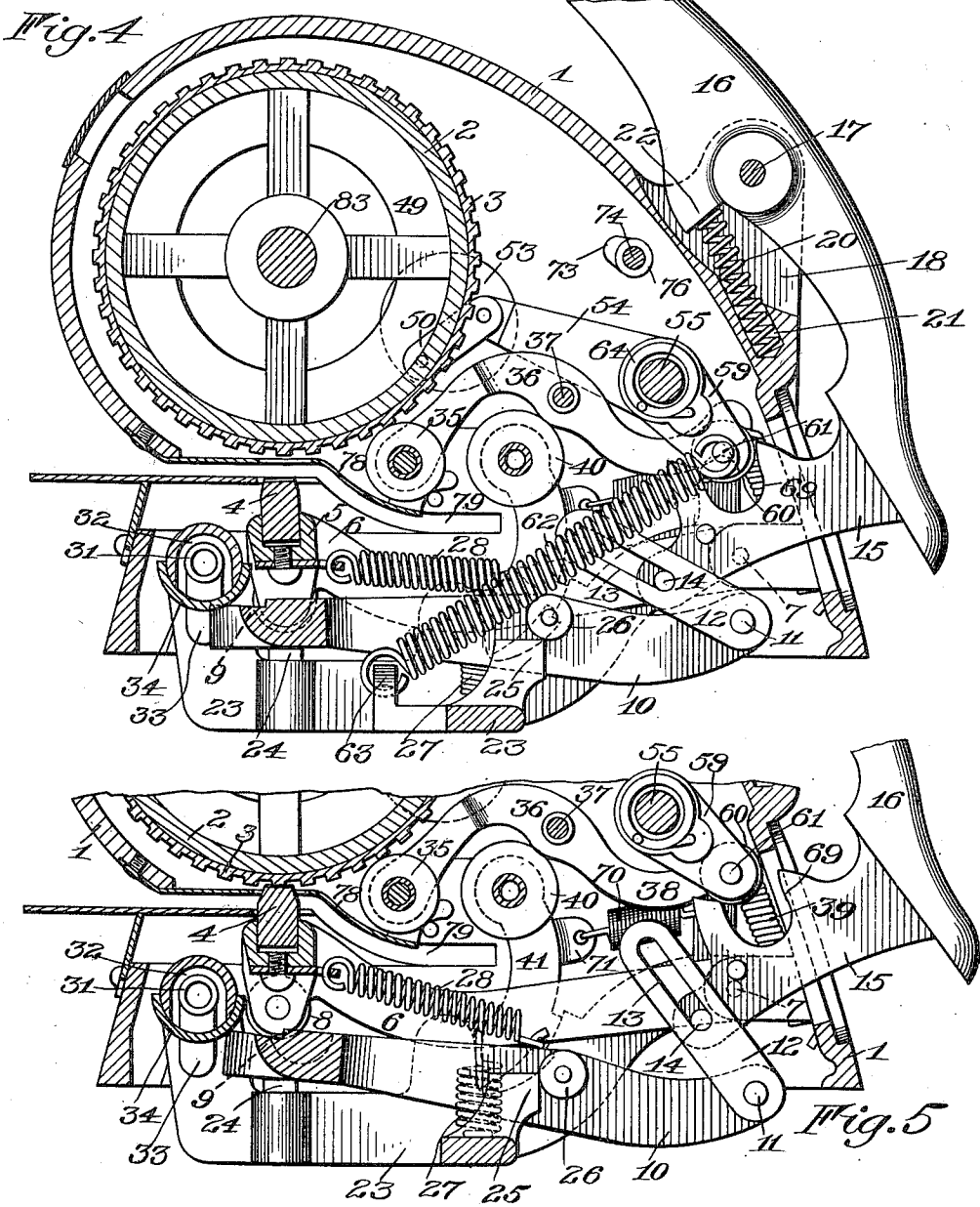
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6 SHEETS-SHEET 3.

1,030,690.



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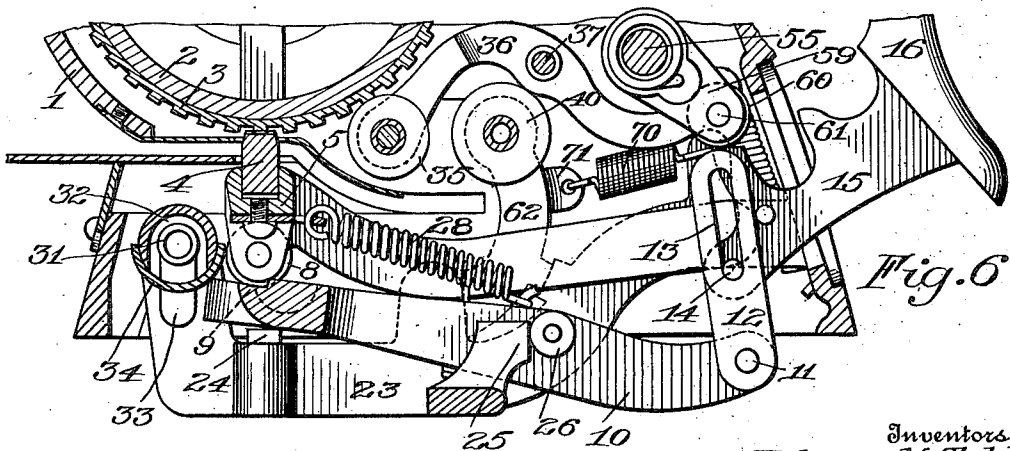
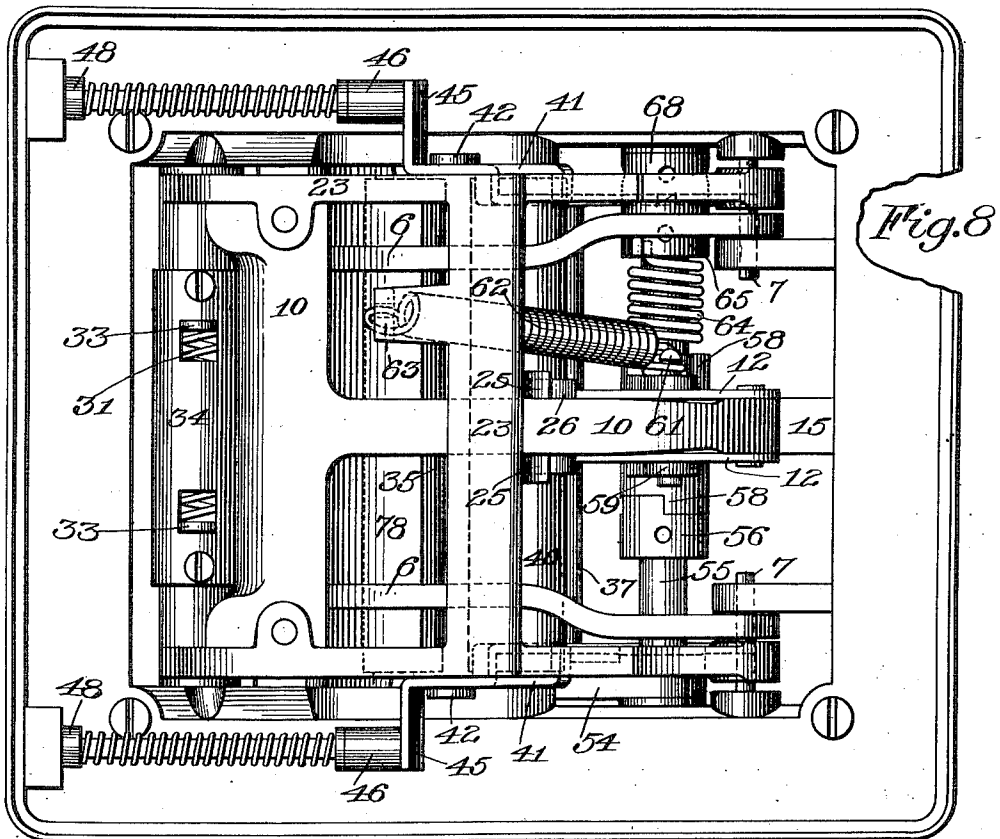
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6 SHEETS-SHEET 4.

1,030,690.



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6 SHEETS—SHEET 5.

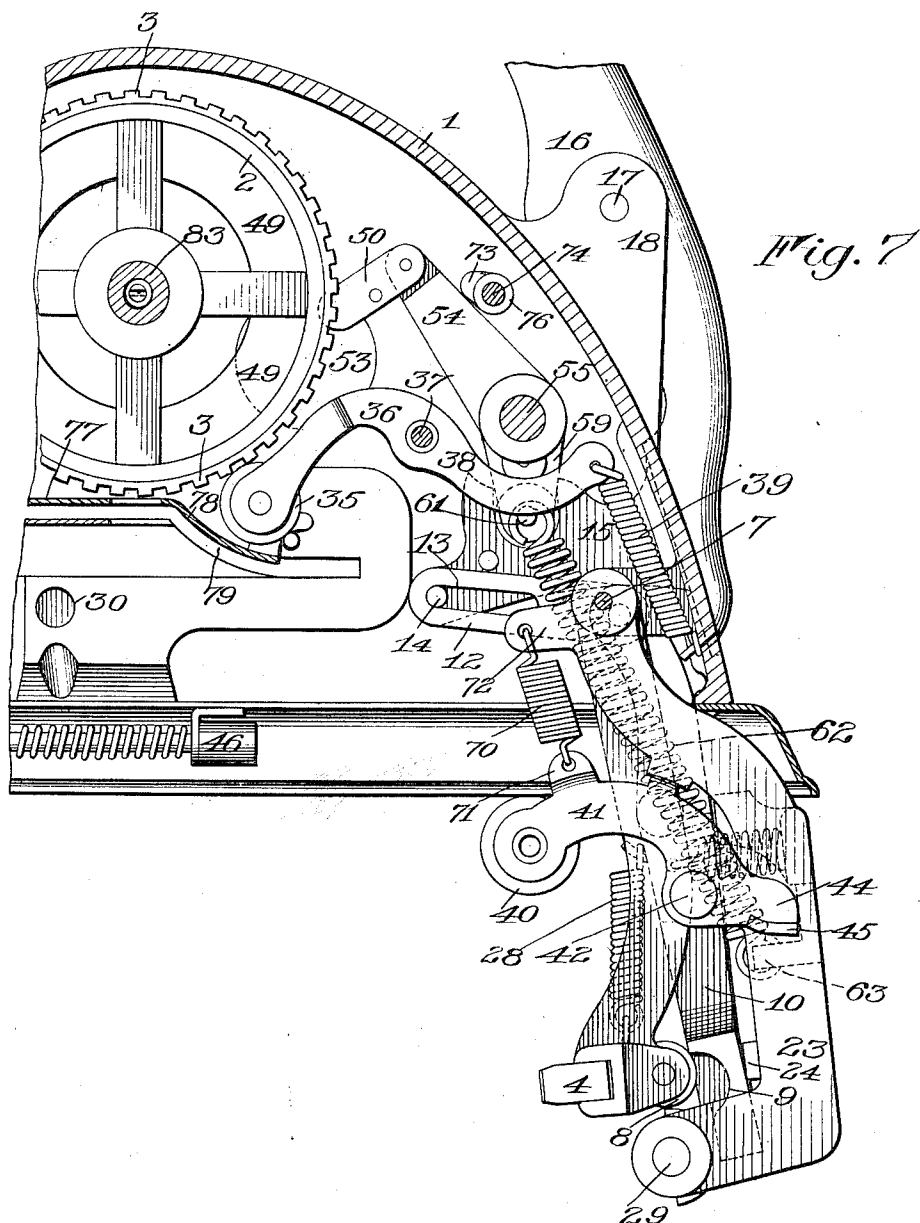


Fig. 7

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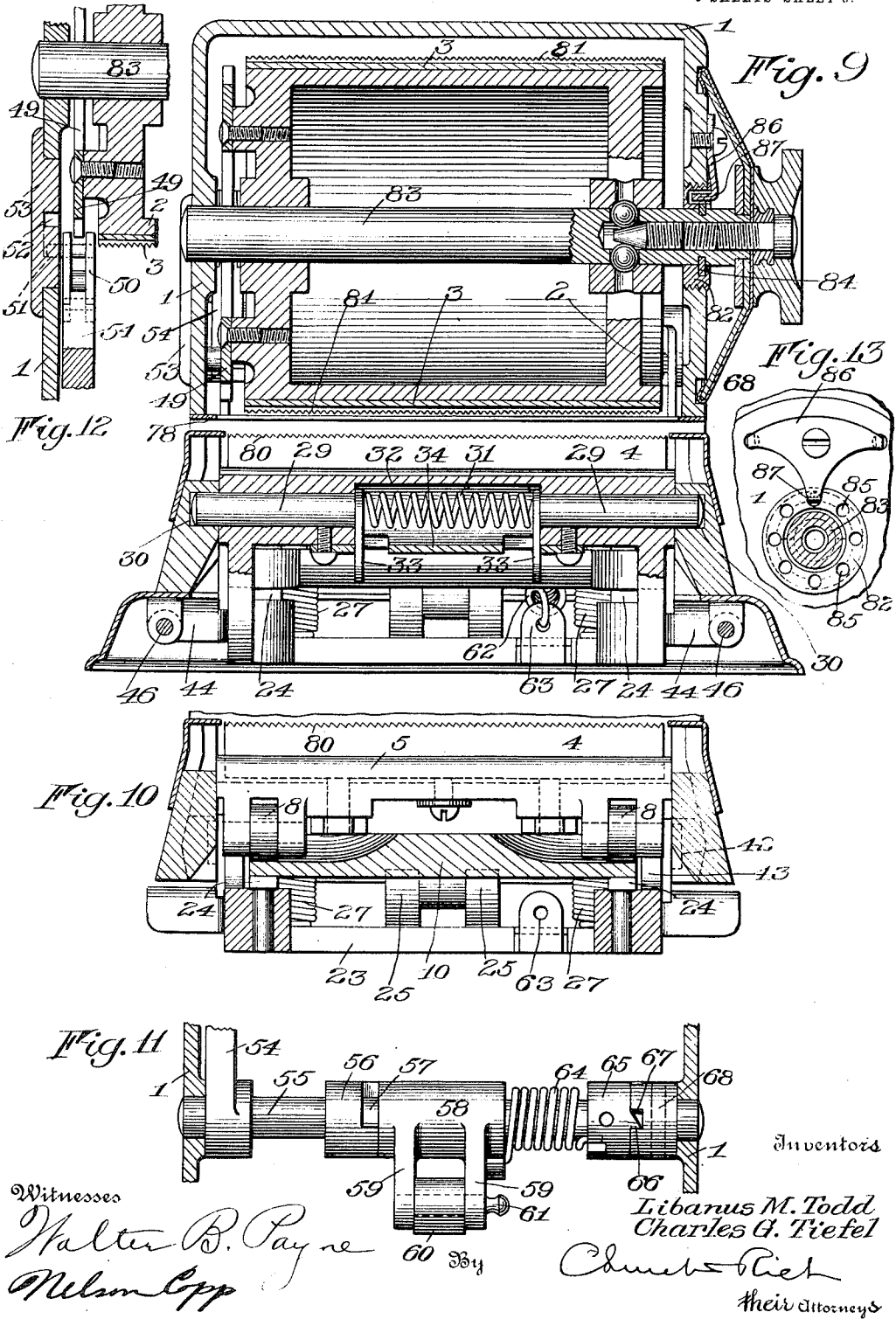
CHECK PROTECTOR.

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6 SHEETS-SHEET 6.



Witnesses

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UNITED STATES PATENT OFFICE.

LIBANUS M. TODD AND CHARLES G. TIEFEL, OF ROCHESTER, NEW YORK, ASSIGNORS
TO G. W. TODD & COMPANY, OF ROCHESTER, NEW YORK, A FIRM.

CHECK-PROTECTOR.

1,030,690.

Specification of Letters Patent.

Patented June 25, 1912.

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To all whom it may concern:

Be it known that we, LIBANUS M. TODD and CHARLES G. TIEFEL, both of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Check-Protectors; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

The present invention relates to printing machines and particularly to that type of hand operated machines employed for marking checks, drafts, and similar instruments to prevent them from being altered, by imprinting on the surface of the instrument a series of figures or characters indicating a limiting amount, and it has for its object to provide means for turning the die holder, or the type wheel, so as to move a die from an inking surface to the printing point at each actuation of the operating lever and to return the die to the inking surface after the operating lever is released.

A further object of our invention is to afford a convenient support for the working parts of the machine, which support is normally held in operative position within the casing of the machine and is adapted to be moved relatively to the casing so as to remove the mechanism to permit access to the interior of the casing.

Another object is to provide means for obtaining a relative longitudinal adjustment between the die holder, or printing wheel, and the platen, in order to secure proper positioning of the cooperating serrations on the respective parts.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a side elevation of a machine illustrating one embodiment of our present invention; Fig. 2 is a view in elevation of the opposite side, with the operating lever partially broken away; Fig. 3 is a vertical sectional view through the casing, showing the mechanism in elevation; Fig. 4 is a central vertical

section, with parts broken away, showing the position of the parts after the initial movement of the operating lever; Fig. 5 is a similar view, showing the position of the parts in the next position of the operating lever; Fig. 6 is a similar view showing the position of the parts in the final or lowermost position of the operating lever; Fig. 7 is a view with parts broken away, in section and in elevation, showing the support moved to permit access to the interior of the machine; Fig. 8 is a bottom elevation; Fig. 9 is a longitudinal vertical sectional view; Fig. 10 is a detail sectional view showing the means for raising the platen; Fig. 11 is a detail view of the shaft and co-operating parts for controlling the inking operation of the die holder; Fig. 12 is a detail sectional view of part of the die holder and the actuating pawl; Fig. 13 is a detail view in elevation of the locking device for the adjustable bushing of the die holder supporting shaft, and Fig. 14 is a detail view of the die holder actuating pawl.

Similar reference numerals throughout the several figures indicate the same parts.

In the present embodiment of the invention there is employed a casing 1, which may be of any desirable form, and in which is journaled the printing wheel, or die holder, 2, provided with a plurality of printing forms, or dies, 3. The platen for raising the instrument into engagement with the die holder to enable the mark to be made thereon, is designated at 4, and to the end that the platen may be accurately and positively moved into engaging position with the die holder, there is preferably provided a mount or holder 5 for the platen, the mount 5 being carried at the forward end of the arms 6, pivotally supported on the bearings 7. Suitably journaled in the bottom of the mount 5 are the anti-friction rollers 8 which are arranged for engagement with the cam surfaces 9 provided at the front portion of the lever 10, the latter being arranged for a sliding and swinging movement as will presently appear. The lever 10 is pivotally attached at 11 to the link 12 which has a slot 13 arranged therein adapted to be engaged by the pin 14 carried at the lower end of the tail piece 15 formed on the actuating device, comprising, in the present instance, the operating lever

16, which latter is pivotally mounted at 17 on the ears 18 of the casing, and is held in normal raised position by means of a spring 20 arranged in the recess 21 of the casing and having engagement with a shoulder 22 on the operating lever.

In order to afford a convenient means for obtaining access to the interior part of the casing, provision is made for removing operative parts from the casing while still retaining them in coöperative relation, and to this end, there is provided a support 23 which is preferably pivoted on the bearings 7, coincident with the pivotal axis of the arms 6. The support 23 is provided with bearing blocks 24 and 25, respectively, on which the lever 10 is arranged for slidable movement, as shown clearly in Figs. 4 and 5, the lever 10 carrying anti-friction rollers 26 arranged to engage the blocks 25. The arms 6 are preferably connected to the support 23 by means of coil springs 27, so as to allow vertical movement of the platen when the lever 10 is operated, and to permit the platen and the supporting arms 6 to be moved outwardly with the support 23 when the latter is swung on its axis. A spring 28 also connects the platen mount 5 with the lever 10, to afford proper coöperative movements of the parts, and to effect return of the platen to its normal position after the operating lever is released. The support 23 is held in its normal closed or operative position by any suitable retaining means, and, to this end, in the present embodiment, there is provided a pair of spring controlled pins 29 slidably mounted in the support and adapted to engage the recesses 30 in the casing. A spring 31, arranged in the recess 32, serves to hold the pins 29 in normal locking engagement with the casing, and thumb pieces 33 are provided on the pins, by which they may be released when it is desired to swing the support out of the casing. In order to provide a suitable housing for the spring 31, there may be provided a cover plate 34 secured to the support, and inclosing the recess 32, as appearing in Fig. 9.

The inking member for the printing wheel, or die holder, in the present embodiment, comprises an inking roll 35 which is spaced from the printing point and carried on the arms 36, the latter being pivoted to the arbor 37 and having downwardly and rearwardly extending arms 38 which are connected to the casing by means of the springs 39 whereby the inking roller is held normally in engagement with the die holder. Suitable means may be provided for furnishing ink to the inking roll, and to this end, the present embodiment affords an ink supplying member, comprising a roll 40 which is carried by the arms 41, the latter being pivotally mounted at 42 to the stand-

ards 43 of the support 23, and having downwardly extending portions 44 which carry the outwardly projecting flanges 45. Spring controlled plungers 46 may be supported in the base 47 of the casing, so as to rest normally in engagement with the flanges 45. The plungers 46 are provided with suitable operating thumb pieces 48, so that when it is desired to replenish the supply of ink on the inking roll 35, the thumb pieces 48 are engaged to move the plungers 46 engaging the flanges 45, causing the arms 41 to be rocked until the ink supplying roll 40 engages the inking roll 35, at which time, by rotating the die holder, the desired amount of ink may be fed to the inking roll.

In machines of this class, a great difficulty has been that where the same die is used successively, the ink is exhausted at each operation, and it is necessary to turn the die holder an entire revolution, in order to re-ink the die for the succeeding operation, and in order to overcome this, we provide means for automatically re-inking each die after it is used, and to this end, in the present embodiment, provision is made for turning the printing wheel, or die holder, at each actuation of the operating lever 16, so as to move the selected die from a position where it engages the inking roll, to the printing point, in alinement with the platen, the movement of the die holder taking place before the platen is raised. According to a convenient method of accomplishing this purpose, the die holder, or printing wheel, is provided with a toothed wheel 49, attached to one end thereof, as shown in Fig. 9, and arranged for engagement with the toothed wheel 49 is a pawl 50 which is provided with a lateral extension, or pin, 51 arranged to engage in a cam slot 52 in the plate 53 which is removably secured in the end of the casing, as shown more clearly in Figs. 12 and 14. The pawl 50 is pivotally mounted on the crank arm 54, which in turn is fixed on the shaft 55, journaled in the casing. Also fixedly mounted on the shaft is a collar 56, provided with a recess or cut-away portion 57 forming shoulders, which are arranged to be engaged by a portion of the sleeve 58, the latter being loosely arranged on the shaft 55 and carrying ears 59 between which is journaled the anti-friction roller 60. The pin or pivot for the roller 60 is extended beyond one of the ears to form a projection 61 to which is attached a spring 62 having its opposite end secured to the lug 63 on the support 23. A spring 64 is arranged about the shaft 55, having one end connected to the sleeve 58 and its opposite end to the clutch member 65 which is loosely arranged on the shaft and provided with a lug 66 adapted to engage one of the recesses 67 in the stationary collar 68. By this arrangement, the sleeve 58 is

permitted to have a movement on the shaft, after the motion of the latter has been stopped by the limiting action of the cam slot 52 controlling the pawl 50, such further movement of the sleeve being incidental to the operation of the remaining parts of the mechanism necessary to effect movement of the platen, after the printing wheel, or die holder, has been moved to position the selected die in alinement with the platen. Upon the release of the operating lever, the shaft 55 will be returned to its normal position by the arrangement of springs, as shown, thereby causing the pawl 50 to return the printing wheel, or die holder, to its original position, to re-ink the die which has just been used.

In order to effect the movement of the parts just described, any suitable connection may be provided, and to this end, in the present embodiment, an opening 69 is provided in the tail piece 15 of the operating lever, such opening being arranged for engagement with the anti-friction roller 60, carried by the sleeve 58, so that when the operating lever is depressed to cause rearward movement of the tail piece, the sleeve 58 is rocked on the shaft 55, and the parts are thereby moved from their normal position, as shown in Fig. 3, to the first position, shown in Fig. 4, where the die holder has been actuated to move the selected die from engagement with the inking roller to printing position. Further movement of the operating lever causes the parts to assume the position shown in Fig. 5, the lever 10 being moved rearwardly and downwardly causing the platen to be raised, and the final movement of the operating lever, as shown in Fig. 6, causes the platen to be forcibly engaged with the selected die, to imprint the desired character on the instrument.

When it is desired to gain access to the inking roller and the interior of the machine, the locking pins 29 are released from their engaging recesses, and the support 23 is swung downwardly, causing the parts to assume the position shown in Fig. 7. The arms which support the ink supplying roll are held normally away from the inking roll in any convenient manner, as, for instance, by means of springs 70 having one end secured to ears 71 on the arms, and their opposite ends attached to lugs 72 provided on the support 23.

It will be understood, that the pawl 50 is normally disengaged from the die holder, or printing wheel, so that the latter is free to be moved to select the desired character to be printed on the instrument, as is usual in this class of machines. In some cases, it is desirable to lock the die holder in order to obtain repeated use of the same die, and to this end, in the present embodiment, there is provided a cam 73 which is rotatably

mounted on the rod 74 so as to have engagement with the crank arm 54, to rock the latter to a position where the pawl 50 is held in engagement with the toothed wheel 49 on the die holder. Movement of the cam 73 may be effected in any desired manner, as, for instance, by a hand lever 75 arranged outside the casing and connected to the rod 74 having fixed thereon the collar 76 which carries the cam 73.

By reason of the disposition of the inking roll 35 of the present embodiment, means must be provided to properly guide the instrument as it is inserted in the machine for the printing operation, and to this end, a guide plate 77 may be provided, which has a downwardly and rearwardly extending deflecting portion 78 to protect the inking roll and which serves to direct the instrument to its proper position in the slot 79.

In order to secure a proper impression on the instrument, the platen is preferably provided with serrations 80, which coöperate with corresponding serrations 81 arranged on the dies of the die holder, or printing wheel, and it sometimes becomes necessary to adjust the die holder and the platen relatively to each other, in order to secure proper engagement between the coöperating serrated faces, and to this end, we provide means for adjusting the die holder longitudinally on its supporting shaft, such means, in the present embodiment, including a bushing 82 threaded into the casing and surrounding the shaft 83. The bushing is locked against longitudinal movement relatively to the shaft 83 by means of a feather 84, and is provided on its outer surface with a series of recesses or depressions 85.

86 is a locking plate adapted to be secured to the casing and provided with a lug 87 which engages one of the recesses 85 in the bushing whereby the latter is held against movement after the desired adjustment has been secured between the die holder and the platen.

We claim as our invention:

1. In a check protector, the combination with a die, of a movable platen for bringing the paper into contact with the die, an inking member for the die arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for moving the die from the inking member to the printing point prior to the engagement of the paper with the die.

2. In a check protector, the combination with a die holder, of a series of dies on the holder, a movable platen for bringing the paper into contact with a die, an inking member for the dies arranged in spaced relation to the printing point, an actuating

device for causing movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for

5 operating the die holder to move a die from the inking member to the printing point prior to the engagement of the paper with the die holder.

3. In a check protector, the combination
10 with a die, of a movable platen for bringing the paper into contact with the die, an inking member for the die arranged in spaced relation to the printing point, an actuating device for causing movement of the
15 platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for moving the die from the inking member to the printing point prior to the movement
20 of the platen.

4. In a check protector, the combination with a die holder, of a series of dies on the holder, a movable platen for bringing the paper into contact with a die, an inking
25 member for the dies arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement independently of the platen, and
30 means controlled by the actuating device for operating the die holder to move a die from the inking member to the printing point prior to the movement of the platen.

5. In a check protector, the combination
35 with a die, of a movable platen for bringing the paper into contact with the die, an inking member for the die arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement
40 independently of the platen, and means controlled by the actuating device for moving the die from the inking member to the printing point prior to the engagement of the paper with the die and for
45 returning the die to the inking member after the paper is released.

6. In a check protector, the combination with a die holder, of a series of dies on the
50 holder, a movable platen for bringing the paper into contact with a die, an inking member for the dies arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement
55 independently of the platen, and means controlled by the actuating device for operating the die holder to move a die from the inking member to the printing point prior to the engagement of the paper with the die holder and for returning the
60 die to the inking member after the paper is released.

7. In a check protector, the combination
65 with a die holder, of a series of dies on the

holder, a movable platen for bringing the paper into contact with a die, an inking member for the dies arranged in spaced relation to the printing point, an actuating device for causing movement of the platen,
70 the actuating device having initial movement independently of the platen, and means controlled by the actuating device for operating the die holder to move a die from the inking member to the printing point prior to the movement of the platen and for
75 returning the die to the inking member after the completion of movement of the platen.

8. In a check protector, the combination with a die holder, of a series of dies on the
80 holder, a movable platen for bringing the paper into contact with a die, an inking member for the dies arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement
85 independently of the platen, and means controlled by the actuating device for operating the die holder to move a die from the inking member to the printing
90 point prior to the movement of the platen and for returning the die to the inking member after the completion of movement of the platen.

9. In a check protector, the combination
95 with a rotary die holder, of a series of dies on the holder, a vertically movable platen for bringing the paper into contact with a die, an inking roll for the dies arranged in spaced relation to the printing point and in
100 engagement with the die holder, an actuating device for causing vertical movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device
105 for rotating the die holder to move a die from the inking roll to the printing point.

10. In a check protector, the combination with a rotary die holder, of a series of dies
110 on the holder, a vertically movable platen for bringing the paper into contact with a die, an inking roll for the dies arranged in spaced relation to the printing point and in engagement with die holder, an actuating device
115 for causing vertical movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for rotating the die holder to move a die
120 from the inking roll to the printing point prior to the engagement of the paper with the die holder.

11. In a check protector, the combination with a rotary die holder, of a series of dies
125 on the holder, a vertically movable platen for bringing the paper into contact with a die, an inking roll for the dies arranged in spaced relation to the printing point and in engagement with the die holder, an actuat-
130

ing device for causing vertical movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for rotating the die holder to move a die from the inking roll to the printing point prior to the raising of the platen.

12. In a check protector, the combination with a rotary die holder, of a series of dies on the holder, a vertically movable platen for bringing the paper into contact with a die, an inking roll for the dies arranged in spaced relation to the printing point and in engagement with the die holder, an actuating device for causing vertical movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for rotating the die holder to move a die from the inking roll to the printing point prior to the raising of the platen and reversing the movement of the die holder after the paper is released to return the die from the printing point to the inking roll.

13. In a check protector, the combination with a die holder and a platen, the die holder and platen being relatively movable to cause engagement of one with the other, of a series of dies on the holder, an inking member for the dies arranged in spaced relation to the printing point, and a device for actuating the die holder to move a die from the inking member to the printing point prior to the engagement between the platen and the die holder, the actuating device having initial movement independently of the platen.

14. In a check protector, the combination with a die holder and a platen, the die holder and platen being relatively movable to cause engagement of one with the other, of a series of dies on the holder, an inking member for the dies arranged in spaced relation to the printing point, and a device for actuating the die holder to move a die from the inking member to the printing point prior to the engagement between the platen and the die holder and to return the die to the inking member after said engagement, the actuating device having initial movement independently of the platen.

15. In a check protector, the combination with a rotary die holder, of a series of dies on the holder, a movable platen for bringing the paper into contact with a die, an inking roll for the dies arranged in spaced relation to the printing point and in engagement with the die holder, an actuating device for causing movement of the platen, the actuating device having initial movement independently of the platen, means controlled by the actuating device for rotating the die holder to move a die from the inking roll to the printing point, and locking means for preventing movement of the

die holder independently of the actuating device.

16. In a check protector, the combination with a casing, of a die arranged within the casing, a support pivotally mounted beneath the top of the casing, a platen arranged to move upwardly for bringing the paper into contact with the die, the platen being yieldingly connected to the support and arranged for movement with the latter, an actuating device mounted in the casing for causing movement of the platen, and retaining means for holding the support normally within the casing.

17. In a check protector, the combination with a casing, of a die arranged within the casing, a support pivotally mounted beneath the top of the casing, a platen movable upwardly for bringing the paper into contact with the die, the platen having pivotal movement about an axis coincident with that of the support and yieldably connected to the support for movement therewith, an actuating device mounted in the casing for causing movement of the platen, and retaining means for holding the support normally within the casing.

18. In a check protector, the combination with a casing, of a die, a support pivotally mounted in the casing, a vertically movable platen for bringing the paper into contact with the die, the platen being yieldably connected to the support and arranged for movement with the latter, a lever slidably arranged on the support and having a cam surface cooperating with the platen, and retaining means for holding the support normally in the casing.

19. In a check protector, the combination with a casing, of a die, a support pivotally mounted in the casing, a vertically movable platen having pivotal movement about an axis coincident with that of the support and yieldably connected to the support for movement therewith, a lever slidably arranged on the support and having a cam surface cooperating with the platen, and retaining means for holding the support normally in the casing.

20. In a check protector, the combination with a casing, of a die holder arranged within the casing, a support pivotally mounted beneath the top of the casing, a platen movable upwardly for bringing the paper into contact with the die holder, the platen being yieldably connected to the support and arranged for movement with the latter, an inking member arranged to engage the die holder, an ink supplying member carried by the support and adapted to be moved into engagement with the inking member, and retaining means for holding the support normally in the casing.

21. In a check protector, the combination with a casing, of a die holder arranged with-

in the casing, a support pivotally mounted beneath the top of the casing, a platen movable upwardly for bringing the paper into contact with the die holder, the platen having pivotal movement about an axis coincident with that of the support, and yieldably connected to the support for movement therewith, an inking member arranged to engage the die holder, an ink supplying member carried by the support and adapted to be moved into engagement with the inking member, and retaining means for holding the support normally in the casing.

22. In a check protector, the combination with a casing, of a die holder, a support pivotally mounted in the casing, a vertically movable platen for bringing the paper into contact with the die holder, the platen being yieldably connected to the support and arranged for movement with the latter, a lever slidably arranged on the support having a cam surface cooperating with the platen, an inking member arranged to engage the die holder, an ink supplying member carried by the support and adapted to be moved into engagement with the inking member, and retaining means for holding the support normally in the casing.

23. In a check protector, the combination with a casing, of a die holder, a support pivotally mounted in the casing, a vertically movable platen having pivotal movement about an axis coincident with that of the support and yieldably connected to the support for movement therewith, a lever slidably arranged on the support having a cam surface cooperating with the platen, an inking member arranged to engage the die holder, an ink supplying member carried by the support and adapted to be moved into engagement with the inking member, and retaining means for holding the support normally in the casing.

24. In a check protector, the combination with a die, of a vertically movable platen for bringing the paper into engagement with the die, a mount for the platen, said mount

being arranged on a fixed pivot, a cam surface in engagement with the mount, and devices for imparting lateral and vertical movement to the cam surface.

25. In a check protector, the combination with a die, of a vertically movable platen for bringing the paper into engagement with the die, a mount for the platen having a fixed pivotal support, a lever having a cam seat for the mount, and instrumentalities for imparting endwise and vertical movement to the lever.

26. In a check protector, the combination with a casing, of a support pivoted in the casing, a die, a vertically movable platen for bringing the paper into engagement with the die, a mount for the platen having yieldable connection with the support, a cam surface in engagement with the mount, devices for imparting movement to the cam surface, and retaining means for holding the support normally within the frame.

27. In a check protector, the combination with a casing, of a support pivoted in the casing, a die, a vertically movable platen for bringing the paper into engagement with the die, a mount for the platen having a pivotal movement and yieldably connected to the support, a lever having a cam seat for the mount, and instrumentalities for imparting endwise movement to the lever.

28. In a check protector, the combination with a platen for bringing the paper into contact with a die, of a die movable independently of the platen, an inking member arranged in spaced relation to the printing point, and means controlled by operating a lever continuously in one direction for first moving the die from the inking member to the printing point, and subsequently actuating the platen.

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Witnesses:

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