

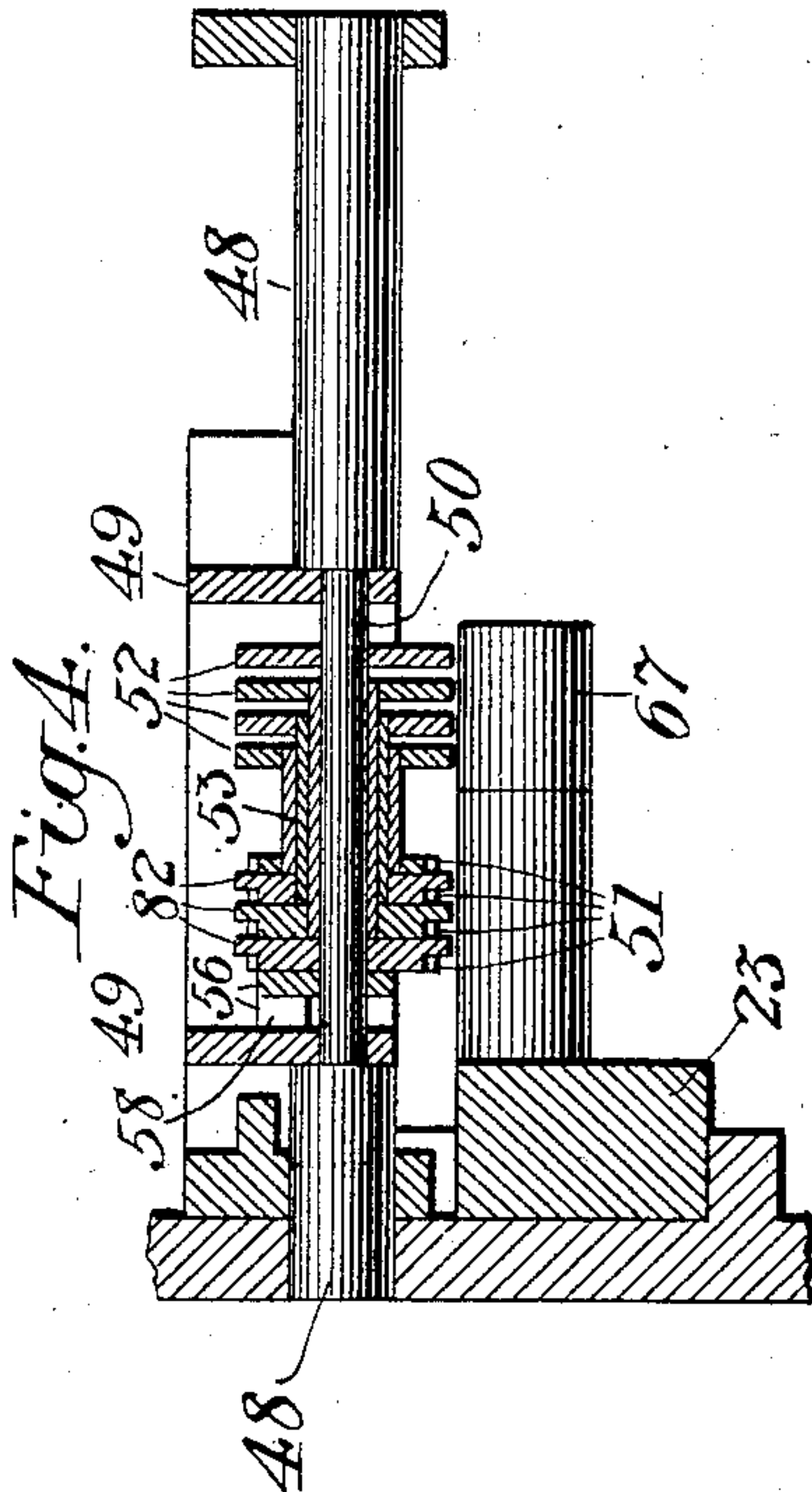
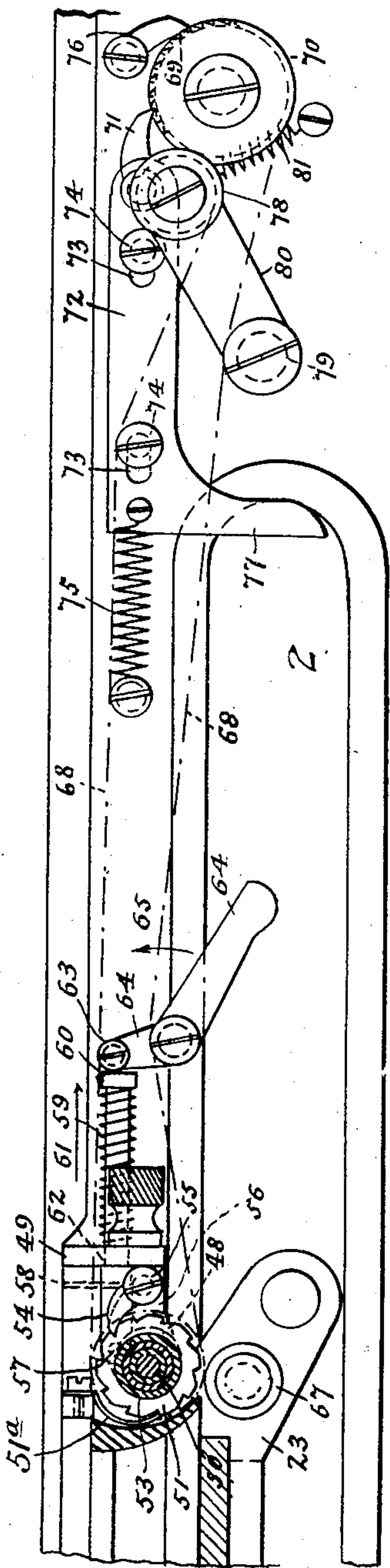
C. LAURICK.  
CASH REGISTER.

APPLICATION FILED OCT. 4, 1902.

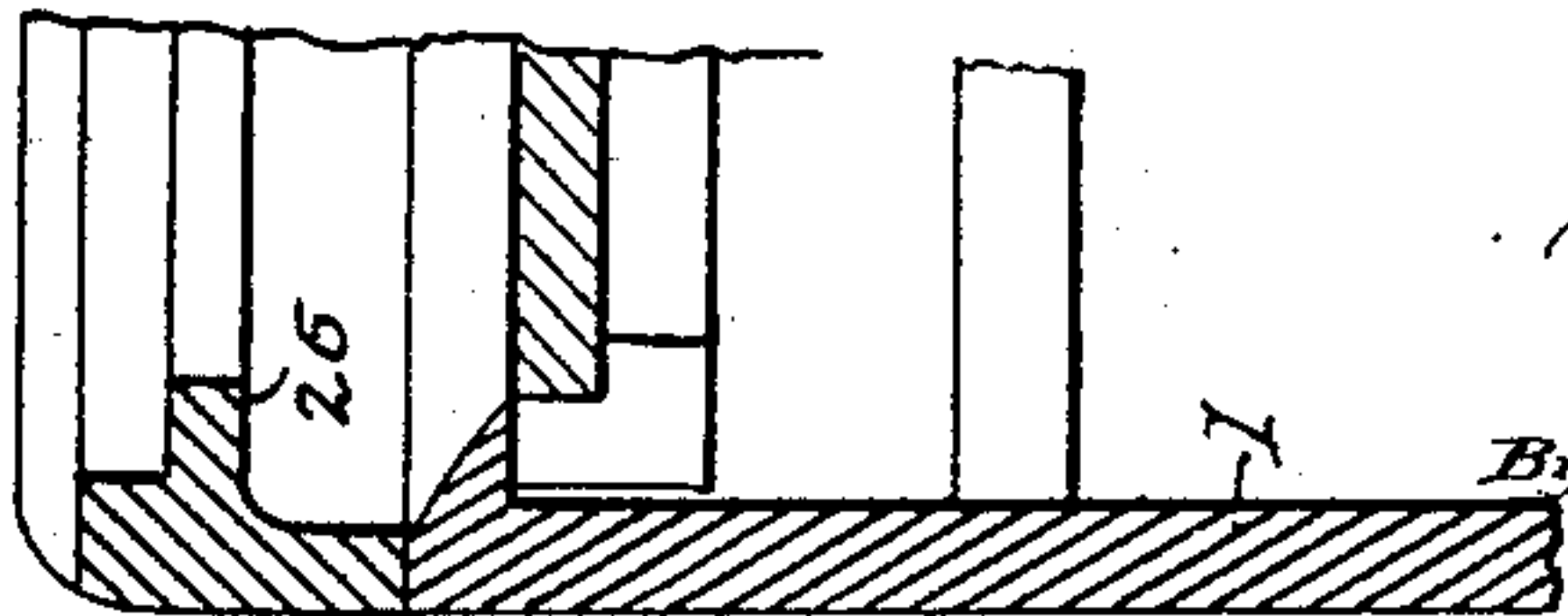
NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:  
E. B. Bolton  
H. M. Kuehne



Inventor:  
Carl Laurick

Richard R.

His Attorneys.

C. LAURICK.  
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2 SHEETS—SHEET 2.

NO MODEL.

Fig. 2—

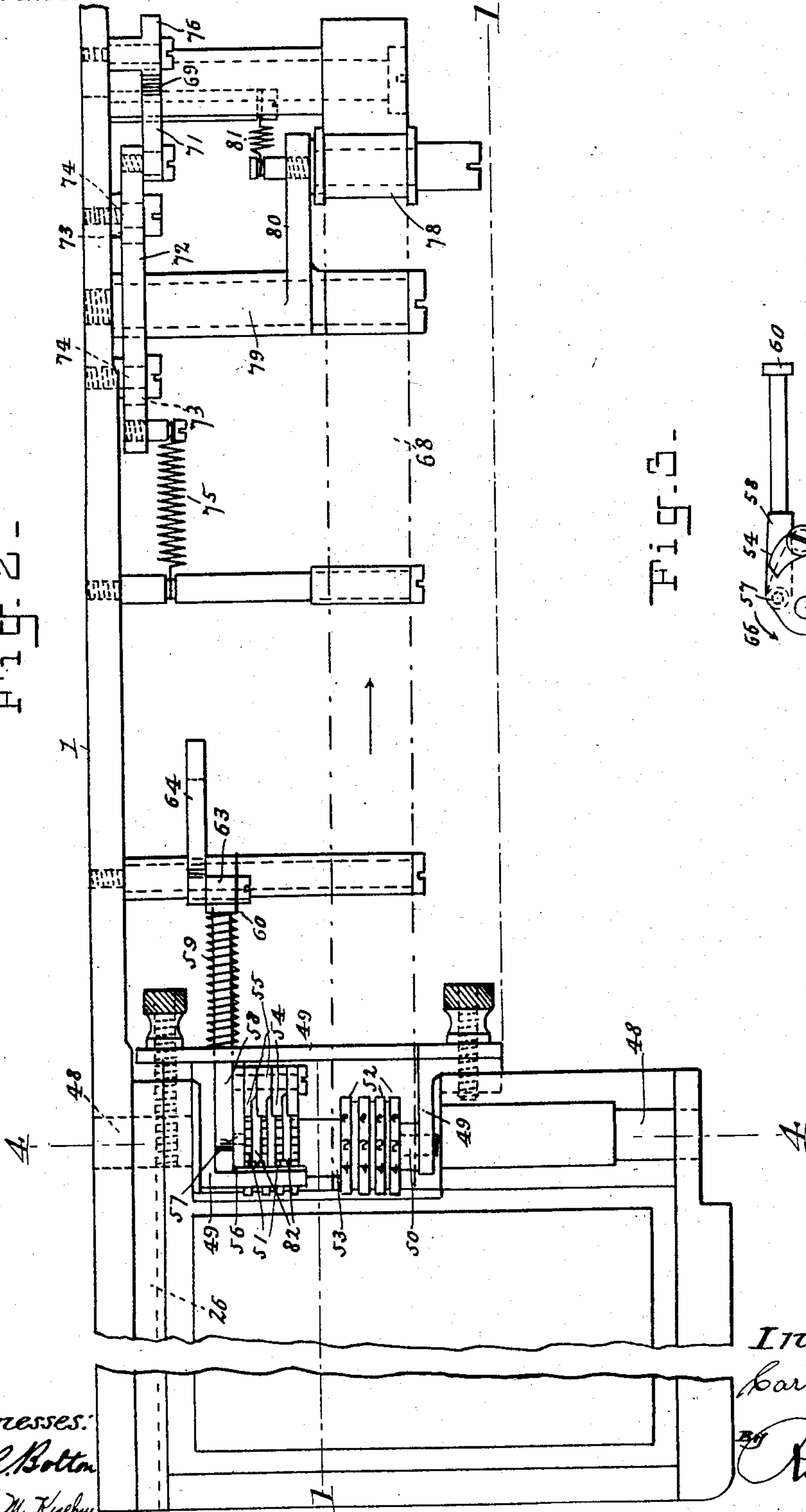
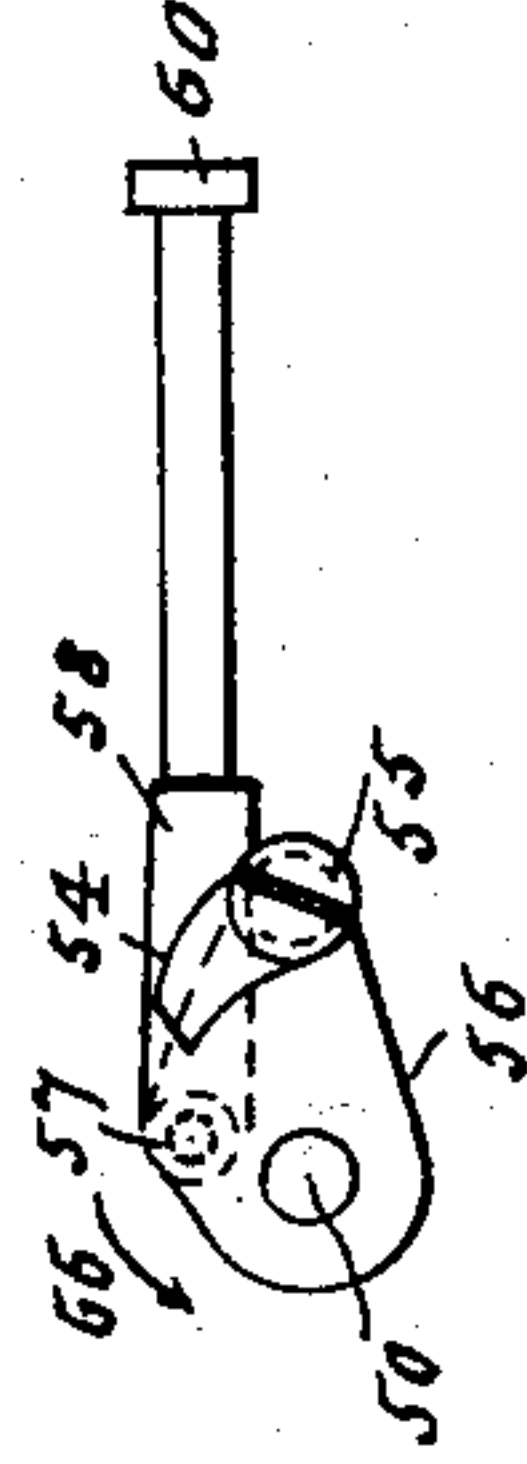


Fig. 3—



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Inventor:  
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By *Richardson*  
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# UNITED STATES PATENT OFFICE.

CARL LAURICK, OF BERLIN, GERMANY, ASSIGNOR TO NATIONAL CASH REGISTER COMPANY, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

## CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 720,531, dated February 10, 1903.

Application filed October 4, 1902. Serial No. 125,981. (No model.)

*To all whom it may concern:*

Be it known that I, CARL LAURICK, a subject of the King of Prussia, German Emperor, and a resident of Berlin, in the Kingdom of Prussia, German Empire, have invented certain new and useful improvements in continuous-number-stamping devices for cash-registers used for the continued numbering of checks, of which the following is a full, clear, and exact description.

This invention relates to improvements in cash-registers, and has more particular relation to improvements in printing devices for the same.

The object of the invention is to provide improved means whereby a consecutive number or other data may be printed upon an inserted sales-slip.

The invention consists of certain novel constructions, combinations, and arrangements of parts, all of which will be hereinafter more particularly set forth and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 represents a detail vertical section through the devices embodying my invention, taken substantially on the line 1 1 of Fig. 2, a number of the parts being indicated by dotted lines. Fig. 2 represents a detail plan view, partly broken away, of said devices. Fig. 3 represents a detail side elevation of the operating devices for the consecutive-number printer, and Fig. 4 represents a transverse vertical section on the line 4 4 of Fig. 2.

Described in general terms, this attachment, which is somewhat similar to that covered by my United States Patent No. 707,603, dated August 26, 1902, may be said to comprise a hinged lid or flap which must be raised in order to expose a reciprocating table or slip-carrier located below the same. The movements of this carrier after the flap has been closed effect a feed of the printing devices for the consecutive number and feed the endless inking-ribbon forward. The aforesaid printing devices are carried eccentrically on the said pivoted flap, so that when the same is closed they will impress the check or slip lying on the carrier beneath them. As the means

for operating the sliding slip-carrier forms no part of the present invention, I will not describe the same, as any suitable form of reciprocating mechanism may be employed. One form of such mechanism is shown in my aforesaid patent; but there are many other forms which may be readily applied to reciprocate the carriage positively in both directions.

Described in detail, the frame 1 of the machine is formed on one side with a guide-channel 2, in which the slide 23 is arranged to be reciprocated by a hand-lever and connections of any suitable construction. This slide or carrier is formed with a table arranged to receive the sales-slip, which is deposited thereon after the hinged flap or cover 26 has been first elevated. This flap or cover is pivoted in the main frame by trunnions 48, as best shown in Figs. 2 and 4, so that it may be raised and lowered at will. A transverse shaft 50 is journaled eccentrically in the cover or flap 26 and supports a series of nested sleeves 53. These sleeves are provided at their opposite ends with type-wheels 52 and ratchet-wheels 51. The type-wheels 52 are formed with numeral-types for printing from zero to nine. These type-wheels are arranged to be advanced upon each operation of the slide 23, so as to increase the number to be printed by one. This advance of the type-wheel is effected by a plunger-rod 58, slidably mounted in the cover and pivoted at its forward end, as at 57, to an arm 56, which is journaled on the shaft 50. This arm 56 carries a pivot-pin 55, upon which are mounted a series of gravity-pawls 54, which are arranged to engage their respective ratchet-wheels 51. The extreme left-hand pawl 54 remains always in engagement with its respective ratchet-wheel, but the remaining pawls are only allowed to engage their respective wheels when a transfer is to be made and are held out of such engagement by a series of guard-disks 82, connected to the respective ratchet-wheels and upon which said pawls rest. Each of the guard-wheels 82 is provided with a notch in its periphery, which permits its respective pawl 54 to drop into engagement with its ratchet-wheel when a transfer



is to be effected. As this transferring mechanism is old and well known in the art, no further description of the same is thought to be necessary here, it being sufficient to say  
 5 that after the first ratchet-wheel at the left has made a complete revolution the second ratchet-wheel will be advanced one tooth, and so on through the series.

The ratchets are held against retrograde  
 10 movement by a series of spring-pawls 51<sup>a</sup>, mounted on the flap. The plunger 58 is normally held in a retracted position by a coil-spring 59, mounted about the same and engaging with its opposite ends against a por-  
 15 tion of the hinge-cover and a head 60 of said plunger. This head 60 engages an antifric-tion-roller 63, mounted upon a bell-crank lever 64, which is pivoted upon a suitable jour-nal-stud extending from the main frame, as  
 20 best shown in Fig. 2. The lower arm of the bell-crank lever is engaged by the carriage 23 when the latter is moved rearward, and the plunger 58 is thus forced forward to cause the consecutive-numbering device to advance one  
 25 number. The endless inking-ribbon 68 passes about the type-wheels 52 and over suitable guiding-rollers to a feeding-roller 70, jour-naled upon the main frame. This roller 70 is provided with a ratchet-wheel 69, which is  
 30 engaged by a gravity-pawl 71. The pawl 71 is mounted upon a sliding frame 72, which is mounted upon the main frame by screw-bolts 74, which pass through elongated slots 73, formed in said slide. A spring 75 connects  
 35 the slide to the main frame to hold it in its normal forward position. When the carriage 23 is moved rearward, it engages a pendent arm 77 of the slide 72, and thus forces the latter rearward. This movement causes the  
 40 pawl 71 to feed the ratchet 69 forward one tooth, and thus feeds the ribbon correspond-ingly. A pivoted pawl 76, mounted upon the main frame, engages the ratchet 69 to pre-vent any retrograde movement of the same.  
 45 In order to hold the ribbon 68 taut, I provide a tension-roller 78, mounted upon an arm 80, which is normally drawn downward by a coil-spring 81, connecting it to the main frame. The roller 78 rests upon the top of the ribbon  
 50 68, and thus takes up the slack in the same as the ribbon stretches.

The carriage 23 is provided with an impres-sion-roller 67, upon which the sales-slip or check is laid when the flap 26 is elevated.  
 55 When the flap is now closed, the type-wheels 52 will because of their peculiar eccentric mounting force the ink-ribbon against the slip or check resting upon the roller 67, and thus make an impression. When the car-riage 23 is moved rearward, the check or slip remains stationary against the type-wheels  
 60 52 until the platen-roller 67 has passed from beneath the type-wheels. The pressure upon

the check now being removed, it will travel rearward with the carriage 23.

It will be seen from the above description that the closing of the flap or lid will effect the printing upon the check or slip, while the rearward movement of the carriage with the slip will advance the consecutive-print-  
 70 ing device and feed the ink-ribbon.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a shiftable slip-  
 75 support, of a printing device, means for ef-fecting an impression therewith upon the slip when the said support is in its normal posi-tion, and means operated by the slip-support when shifted from such normal position, for  
 80 changing the adjustment of the printing de-vice, substantially as described.

2. The combination with a shiftable slip-  
 support, of a printer mechanism, means for moving the printer and effecting an impres-  
 85 sion thereby, means for changing the adjust-ment of said printer by the shifting of said support, an inking device, and means for op-erating said device by the shifting of the sup-  
 90 port.

3. The combination with a shiftable slip-  
 support, of a movable cover for the same, a printing device actuated by the cover to make an impression, and means actuated by the  
 95 shiftable support to change the adjustment of the printing device, substantially as de-scribed.

4. The combination with a sliding slip-car-  
 rier, of a pivoted cover thereover, a set of consecutive-numbering type-wheels mounted  
 100 eccentrically to the pivot of said cover so as to effect an impression upon a slip lying on the carrier when the cover is closed down, and means for changing the adjustment of the printer with each reciprocation of the carrier.  
 105

5. The combination with a sliding slip-car-  
 rier, of a pivoted cover thereover, a set of consecutive-numbering type-wheels mounted  
 110 eccentrically to the pivot of said cover so as to effect an impression upon a slip lying on the carrier when the cover is closed down, and means operated by the carrier in its re-ciprocations to change the adjustment of the printer step by step.

6. The combination with a slidable slip-  
 115 support, of a printing mechanism, an inking-ribbon, a spring-drawn slide carrying a feed-ing-pawl and arranged to be operated by the slip-support, and means operated by the feed-ing-pawl for moving the ink-ribbon forward.  
 120

In witness whereof I have hereunto set my hand in presence of two witnesses.

CARL LAURICK.

Witnesses:

HENRY HASPER,  
 WOLDEMAR HAUPT.