(No Model.)

# G. H. GLEDHILL.

## VOUCHER TILL.

No. 547,485. Patented Oct. 8, 1895

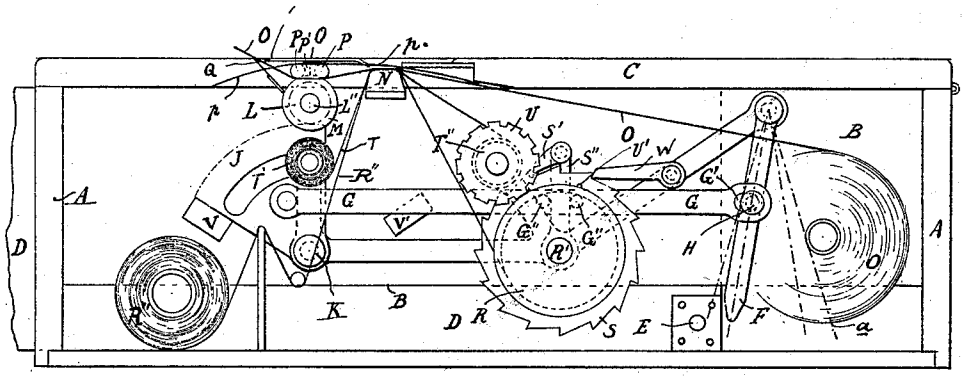


Fig. 1.

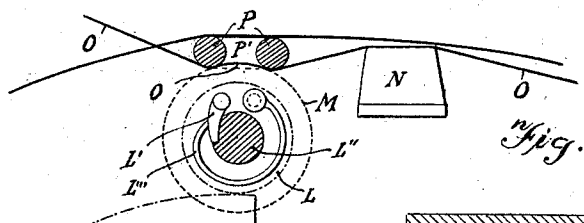


Fig. 4.

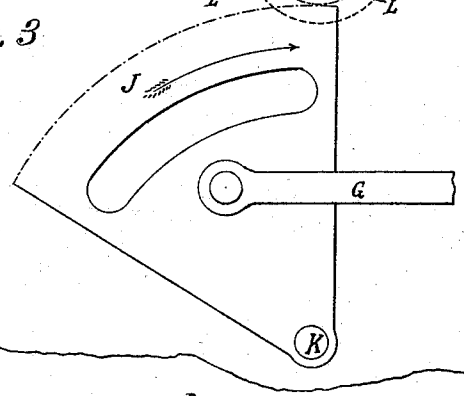
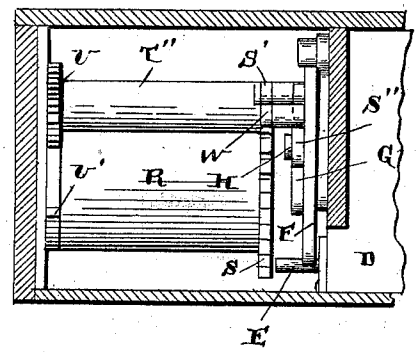


Fig. 3



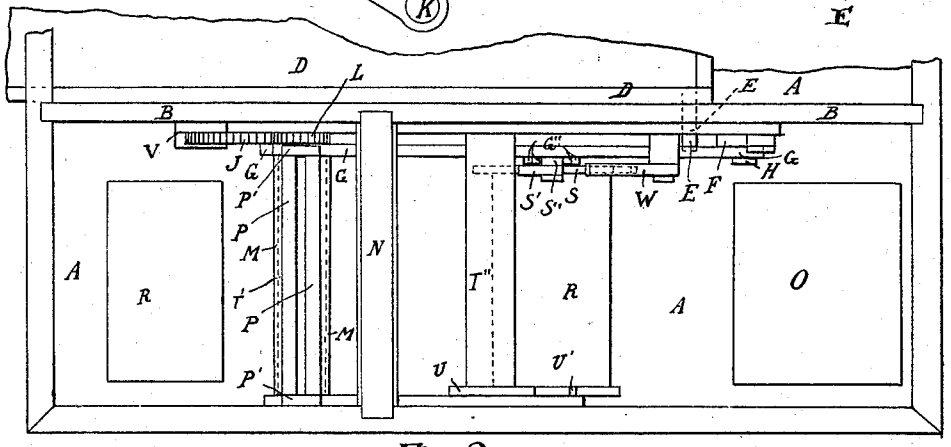


Fig. 2.

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# UNITED STATES PATENT OFFICE.

GEORGE HENRY GLEDHILL, OF HALIFAX, ENGLAND, ASSIGNOR TO WILLIAM THOMAS BLAINE, OF ST. LOUIS, MISSOURI.

## VOUCHER-TILL.

SPECIFICATION forming part of Letters Patent No. 547,485, dated October 8, 1895.

Application filed April 29, 1895. Serial No. 547,527. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE HENRY GLEDHILL, a subject of the Queen of Great Britain and Ireland, residing at Trinity Works, Trinity Street, Halifax, in the county of York, England, have invented certain new and useful Improvements in Voucher-Tills, of which the following is a specification.

This invention relates to improvements in voucher-tills; and my invention consists in the simple and novel construction of mechanism in voucher-tills, as will be hereinafter fully described.

In order that my invention may be readily understood, reference is made to the accompanying drawings, wherein like letters of reference indicate corresponding parts throughout the several figures, and in which—

Figure 1 represents my improved voucher-till in side elevation, the side of the case being removed for the purpose of exposing the mechanism to view. Fig. 2 represents a plan view of my invention, the paper strips being removed so as to expose the mechanism, and Fig. 3 represents, in enlarged scale, the mechanism I employ for feeding forward the voucher-paper. Fig. 4 is a vertical transverse section taken from the right of the lever F.

In carrying out my invention I employ a case A, of suitable construction, said case being provided with a partition B, a lid C, and a drawer D. The partition B does not reach to the bottom of the case, in order that the lug E, which is fixed to the drawer D, may project into the compartment containing the mechanism and in order that the drawer D, having attached to it the projecting lug E, may be opened and closed without hinderance. To the side of the partition B, I pivotally attach a pendent lever F, to which is connected a bar G, by means of a stud H, passing through an elongated aperture G′ in the said bar G, and said bar G is at its other end pivotally connected to a toothed quadrant J, which is pivotally supported at K, and which gears with a toothed wheel L, with which one end of the spindle L″ of a suitable rubber roller M is provided. The case A is provided with a suitable cross-bar N, the lid C being at this part cut away, so that said cross-bar is exposed through said lid, and I provide a roll of voucher-paper O, which voucher-paper passes over the cross-bar N, and thence between the rubber roller M and friction-rollers P, which are supported in frames P′, and thence out through a suitable aperture in the lid, said lid being provided with a knife Q, against which a length of voucher-paper may be readily cut or torn off. A length of voucher-paper is automatically fed forward at each operation of the money-drawer D, by reason of the lug E, when the drawer is being closed, pushing back the lever F from the position shown to the position indicated by the dot-and-dash line *a*, said lever F in turn operating the quadrant J by the connecting-bar G, and said quadrant J revolving the roller M, thereby causing the voucher-paper O to be fed forward, said paper being held in frictional contact with the rubber roller M by means of rollers P, which rollers are supported in frames P′, said frames being in turn attached to springs *p*, supported by the lid and constantly pressing the rollers P against the roller M. The voucher-paper O passes over the cross-bar N in order that the amount of the purchase and other necessary particulars may be written on said paper by the salesman, and in order that a record may be retained of all such writing I provide a roll of record-paper R″, which passes over the cross-bar N, but under the voucher-paper O, and thence onto a drum R, pivoted at R′ and provided with a ratchet-wheel S, which receives its necessary motion at each operation of the money-drawer from a pawl S′, which is pivoted on the lever S″, said lever in turn being pivotally mounted on the spindle or pivot R′ and receiving its necessary reciprocal movement from the movement of the bar G by means of two pins G″, fixed to the bar G, one on each side of the lever S″.

For the purpose of making the necessary transfer of the writing on the voucher-strip onto the record-strip, I interpose a transfer or carbon strip T, which is fed from a suitable roll T′ onto a drum T″ by means of a toothed wheel U, which is moved a suitable distance

at each complete revolution of the drum R by means of a tooth or pin U′, with which said drum R is provided.

In order to limit the movements of the quadrant, I prefer to provide two stops V V′, said stops being made of rubber or other suitable material, and in order to prevent the drum R revolving in the wrong direction I provide a pawl W.

The aperture G′ in the bar G is elongated, so that when the said bar G has been pushed in either direction by the operation of the drawer, as above described, the lever F, after the lug E has passed the said lever, will by gravity fall to a sufficient extent, so that the lug E will come in contact with the said lever F on the drawer being moved in the opposite direction.

In order that the voucher-paper shall be fed forward only, it is necessary that the roller M shall be revolved in one direction only, and in order to accomplish this I loosely mount the toothed wheel L on its spindle L″, and I provide the side of said toothed wheel L with a ratchet L′, which is adapted to engage in a notch or recess with which the supporting-spindle L″ is provided, as shown in Fig. 3, said ratchet being normally held against the spindle by a spring L‴, the arrangement being such that when the quadrant is moved in the direction indicated by the arrow in Fig. 3 the ratchet enters the notch, as described, and causes the roller M to be revolved; but if the quadrant be moved in the opposite direction the ratchet will be moved around the spindle L″ and will fail to transmit its motion to the roller M and the voucher will be left stationary.

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

1. In a voucher till, a toothed quadrant J gearing with a toothed wheel L loosely mounted on the spindle L″ of a roller M and provided with a pawl L′ adapted to enter a notch in the spindle L″, a bar G pivotally attached to the quadrant J and having an elongated aperture G′ combined with the lever F, a mechanism for operating it, and the rollers P all for the purposes and substantially as set forth.

2. In a voucher till the combination of a lug E fixed to the drawer D, a pendent lever F, bar G having an elongated aperture G′ and pivotally attached to a toothed quadrant J gearing with a toothed wheel L loosely mounted on the spindle L″ of a roller M and provided with a pawl L′ adapted to enter a notch in the spindle L″, rollers P a cross-bar N drums R and T″ a ratchet wheel S, a lever S″ supporting a pawl S′ a toothed wheel U adapted to be revolved by a pin or stud U′ with which the drum R is provided, a lid C and knife Q all adapted, arranged and operating for the purposes and substantially as set forth.

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

GEORGE HENRY GLEDHILL.

Witnesses:

W. WILSON HORN,

CHARLES BAUER.