

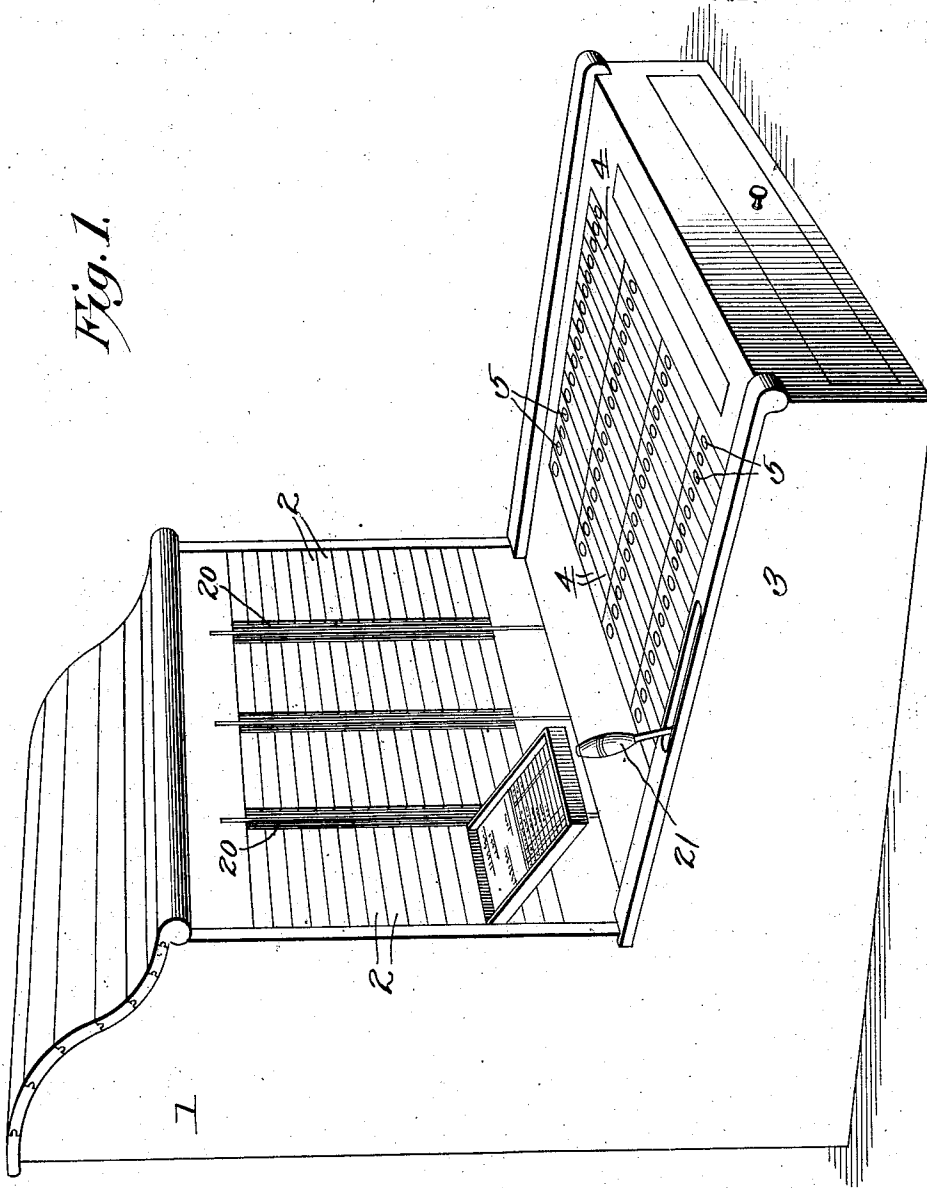
W. L. AMO.
AUTOMATIC DESK.
APPLICATION FILED AUG. 14, 1911.

1,009,373.

Patented Nov. 21, 1911.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses

Oliver H. Holmes
E. B. McRae

Inventor

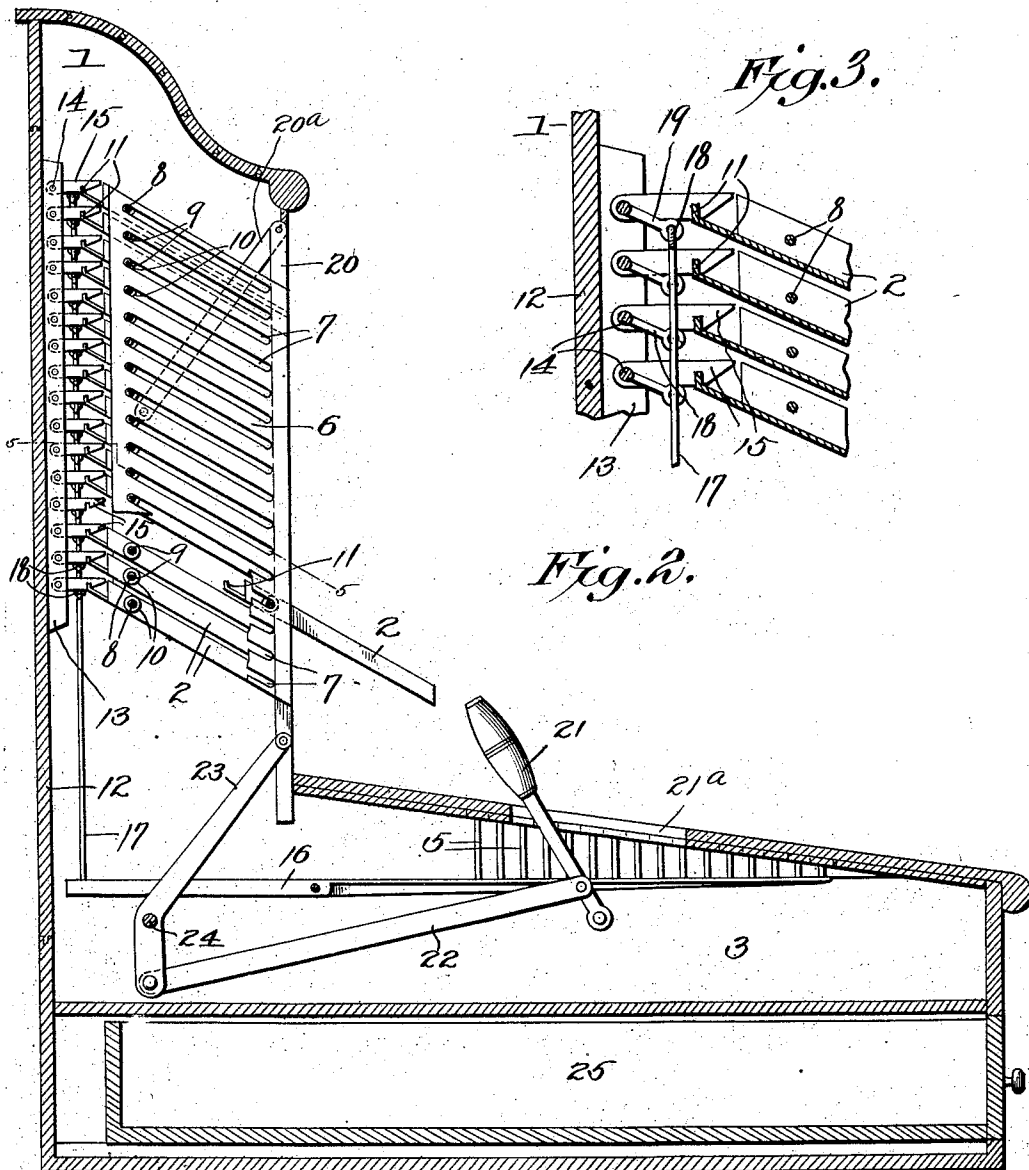
W. L. Amo

By Chas E. Brock
att.

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Oliver W. Holmes
E. B. M. Bach

Inventor

W. L. Amo

By Chas E Brock
Attorney

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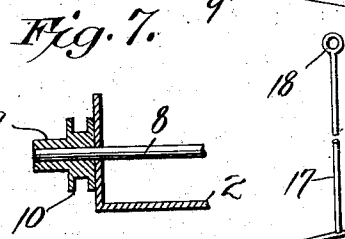
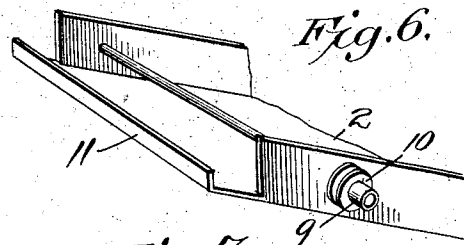
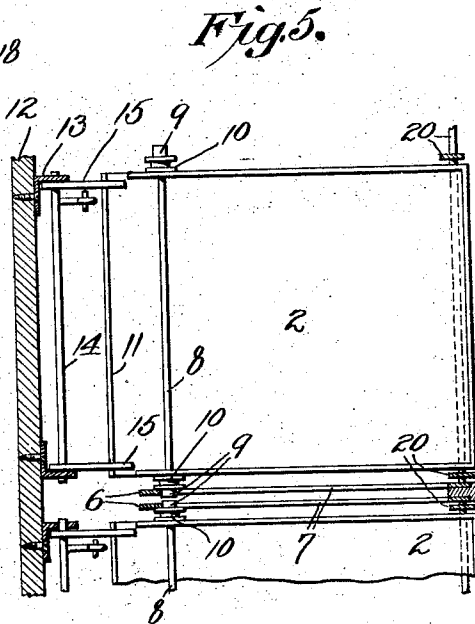
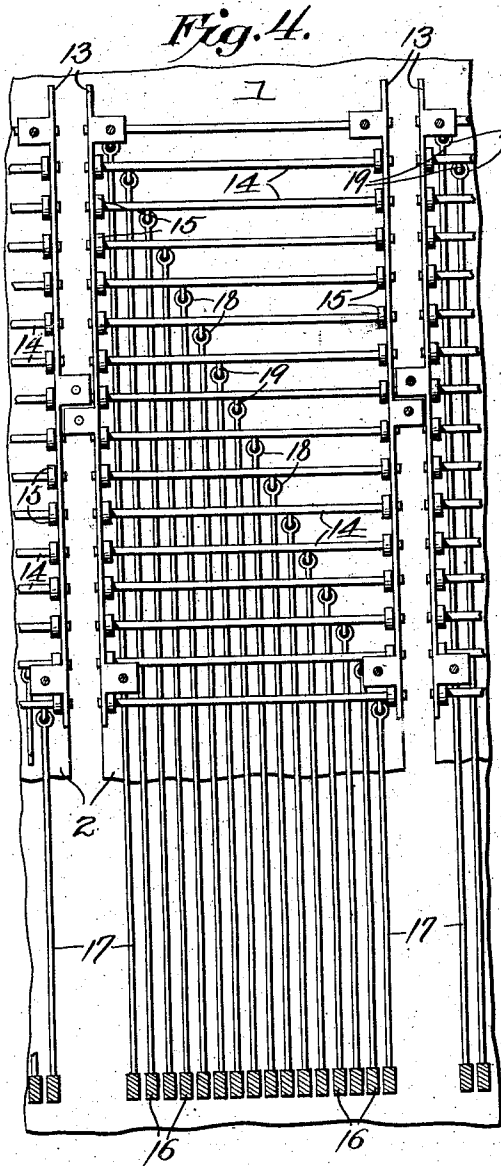
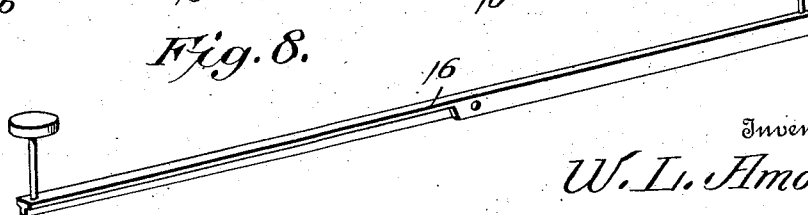


Fig. 8.



Witnesses

Oliver H. Adams
E. B. McBeth

Inventor

W. L. Amo

Chas. E. Brock
 Attorney

UNITED STATES PATENT OFFICE.

WALTER LYON AMO, OF KNOX, PENNSYLVANIA.

AUTOMATIC DESK.

1,009,373.

Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed August 14, 1911. Serial No. 643,973.

To all whom it may concern:

Be it known that I, WALTER L. AMO, a citizen of the United States, residing at Knox, in the county of Clarion and State of Pennsylvania, have invented a new and useful Improvement in an Automatic Desk, of which the following is a specification.

This invention relates to automatic account desks for facilitating the keeping of credit and debit accounts in such a manner that the account of any customer can be kept by the bills used in making up and filling order for goods without requiring their entries, the object being to provide an account desk provided with a plurality of drawers, each adapted to contain the bills or slips of a customer, whereby the account of any customer can be readily brought into position for inspection by depressing a suitable key, and the drawer containing the bills or slips can be returned to normally closed position by the operation of a shifting lever, common to all of the drawers. By means of a device of this kind any particular account can be readily brought to view by simply depressing the proper key, and all accounts which may have been examined at one time can be returned into their proper normal positions by one movement of a return lever. In constructing a device to carry out these objects I employ the novel features of construction hereinafter described, pointed out in the claims and shown in the accompanying drawings, in which, Figure 1 is a perspective view of the desk, one of the drawers being shown in open position. Fig. 2 is a vertical section taken adjacent an end of the desk. Fig. 3 is a detail vertical section of a portion of the locking means, a portion of the drawers being shown in section. Fig. 4 is a rear view of the central portion of the desk, the back being removed and certain releasing levers being shown in section. Fig. 5 is a section on the irregular line 5-5 of Fig. 2. Fig. 6 is a perspective view of the rear portion of one of the drawers. Fig. 7 is a detail section through a side portion of one of the drawers, a roller being shown in section. Fig. 8 is a detail perspective view of an operating lever.

In these drawings, 1 represents the rear vertical portion of a desk, which is provided with a plurality of downwardly and outwardly movable drawers 2, arranged in a number of vertical rows. This desk is pro-

vided with a forwardly downwardly sloping front portion 3, upon which is adapted to be placed an index or a plurality of name slips 4 equal in number to the number of drawers provided, and adjacent each of said slips 4 is an operating key 5, each of which is adapted to move into open position in a particular drawer, in which are kept the accounts of the customer whose name is upon the slip adjacent the key depressed. Each row of drawers is arranged between suitable side walls or partitions 6, which are slotted as shown at 7 and across the rear portion of each drawer extends a shaft 8, the projecting ends of which carry rollers 9 adapted to travel in the slots 7, and adjacent each roller and preferably integral with it is a grooved wheel 10.

It will be noted from the drawings that the slots 7 incline downwardly and forwardly and this is the normal position occupied by the drawers. At the rear the bottom of each drawer is extended and then bent upwardly forming a rear transverse flange 11, which flange forms a catch or locking lug. The desk is provided with a suitable rear wall 12, to which are secured angle vertical metal strips 13, two of said strips being arranged in the rear of each row of drawers and rotatably journaled in said strips are shafts 14. Rigidly fixed upon said shafts and adjacent their ends are suitable catches 15, which normally engage the flanges 11 of the drawers and hold them in position within the desk portion 1, the rollers 9 being held at the upper rear ends of the slots 7. It will be obvious that upon lifting the catches 15 and engaging the flange of any particular drawer, the said drawer will automatically travel downwardly and outwardly, the rollers 9 traveling in the guide-ways formed by the slots 7.

In order to connect the keys 5 previously referred to with the catches 15, each key is carried by the front end of an operating lever 16, suitably pivoted intermediate its ends, and each of these levers carries at its rear end an upwardly extending rod 17, provided with an eye 18 at its upper end, and each of the shafts 14 is provided with an outwardly extending arm 19, with which the eye 18 of one of the levers 16 engages. It will be understood therefore that each of said drawers is by this means connected to a particular key, and as the drawers are arranged in vertical rows, it will be obvious

that the rods 17 will be of various heights as shown in Fig. 4.

At the front of the desk and adjacent the sides of each row of drawers are arranged vertical rods 20 pivotally connected at their upper ends to links 20^a which in turn are pivotally connected to any suitable upper portion of the desk, their sides or partitions, said links guiding inwardly and upwardly said bars 20. Adjacent their lower ends the bars are pivotally connected to bell cranks 23, said bell cranks being fixed upon a rock shaft 24. A return lever 21 is pivotally arranged at one side of the desk, extending upwardly through a suitable slot 21^a, and said lever is connected by means of a link 22 to the lower end of one of the bell cranks 23. It will be obvious that as said lever is swung forwardly the bell crank 23 will be rocked, thus rocking the shaft 24 and imparting similar movement to all of the bell cranks. This will cause all of the rods 20 to move upwardly and inwardly, swinging upon an arc corresponding to that described by the bell cranks 23 the upper ends of the rods 20 being guided inwardly by the links 28. It will be obvious that when any of the drawers are released and brought into position for inspection of the accounts contained therein, the grooved wheels 10 will engage the rear edges of the bars 20, said bars resting in the grooves of the wheels. Upon drawing the shifting lever 21 forwardly all of the bell cranks 23 will be rocked and all of the bars 20 will be moved upwardly and inwardly thereby returning to normal position all of the drawers, and upon being returned to such position the flanges 11 carried by said drawers will be reengaged by the catches 15. The return lever can then be moved back to its normal position returning the bars 20 to normal position and leaving the drawers also in normal position. I also provide in the lower part of the desk portion 3 a drawer 25, which can be used for old accounts or for holding any other papers which it may be desired to deposit in it.

What I claim is:

1. A desk of the kind described, having a plurality of drawers normally held within an upright portion of the desk and in an inclined position, means for locking said drawers in said position, means for releasing any particular drawer, and means common to all of said drawers for returning them to normal position.

2. A desk of the kind described comprising an upright rear portion having vertical side walls provided with downwardly and forwardly extending slots, drawers arranged in said portion, rollers carried by said drawers, said rollers traveling in the guideways formed by said slots, means for engaging

said drawers at the rear and locking them in normal position, means for disengaging any individual drawer and common means for returning all of said drawers to normal position.

3. A device of the kind described comprising a desk having an upright rear portion and a forwardly extending front portion, drawers arranged in vertical rows carried by the upright portion, said drawers being held in an inclined position, means arranged at the rear of the upright portion for locking the drawers in place, a series of keys corresponding in number to the drawers and arranged upon the forwardly extending portion and means operatively connected to said keys and to the locking means for releasing the said drawers upon the depression of the keys.

4. In a desk of the kind described having a rear upright portion provided with side walls obliquely slotted, a plurality of drawers arranged in vertical alinement between said walls, a roller and a grooved wheel arranged upon each side of said drawers, the rollers traveling in said slots, catches adapted to engage a rear portion of the said drawers, keys arranged upon the desk, means operated by depression of said keys for lifting said catches, vertically arranged bars at the front of the upright portion, said bars being adapted to be engaged by the grooved wheels, and means for moving said bars upwardly and rearwardly for the purpose of returning the drawers to normal position.

5. In a device of the kind described, the combination with an inclined drawer having a rear transverse flange, of a shaft, catches fixed upon said shaft and adapted to engage said flange, an arm rigid with said shaft, a depressible key, a lever upon which said key is mounted, and a rod also carried by said lever and loosely connected to the arm of the rod, as and for the purpose set forth.

6. In a device of the kind described, the combination with a plurality of slidable drawers working in an inclined plane, said drawers having grooved wheels carried at their sides, of bars arranged vertically upon opposite sides of the said drawers and adapted to be engaged by said grooved wheels, bell cranks having arms pivotally connected to said bars, and a drawer return lever operatively connected to said bell cranks thereby lifting the said bars upwardly and rearwardly, as and for the purpose set forth.

WALTER LYON AMO.

Witnesses:

J. M. BROTHERS,
D. R. ROSE.