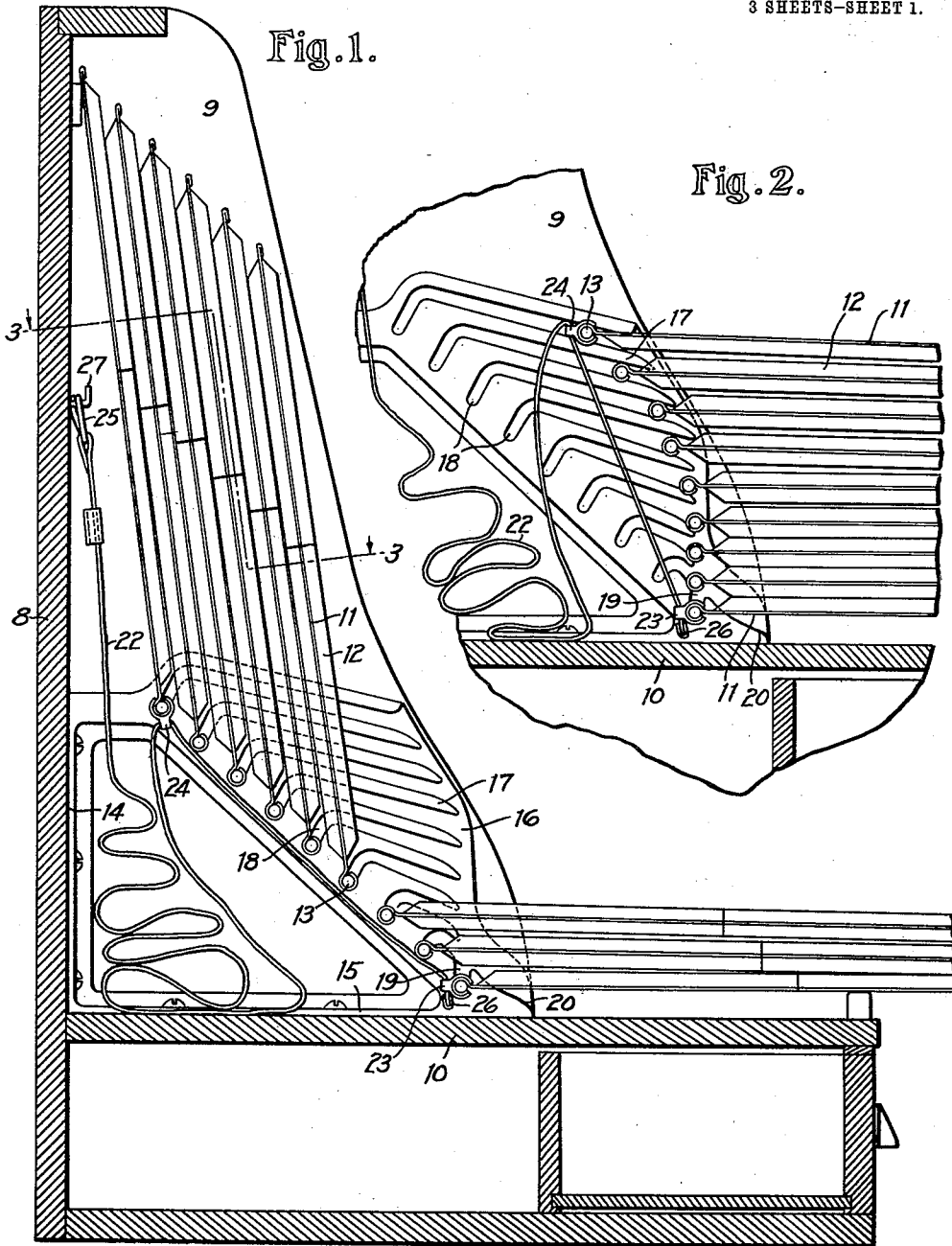


A. F. STAPLES.
ACCOUNT REGISTER.
APPLICATION FILED NOV. 29, 1911.

1,023,889.

Patented Apr. 23, 1912.

3 SHEETS-SHEET 1.



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3 SHEETS—SHEET 2.

Fig. 3.

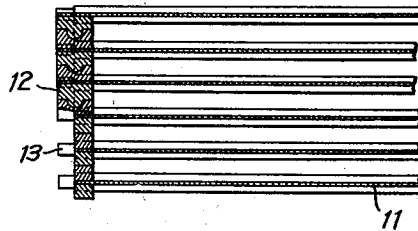
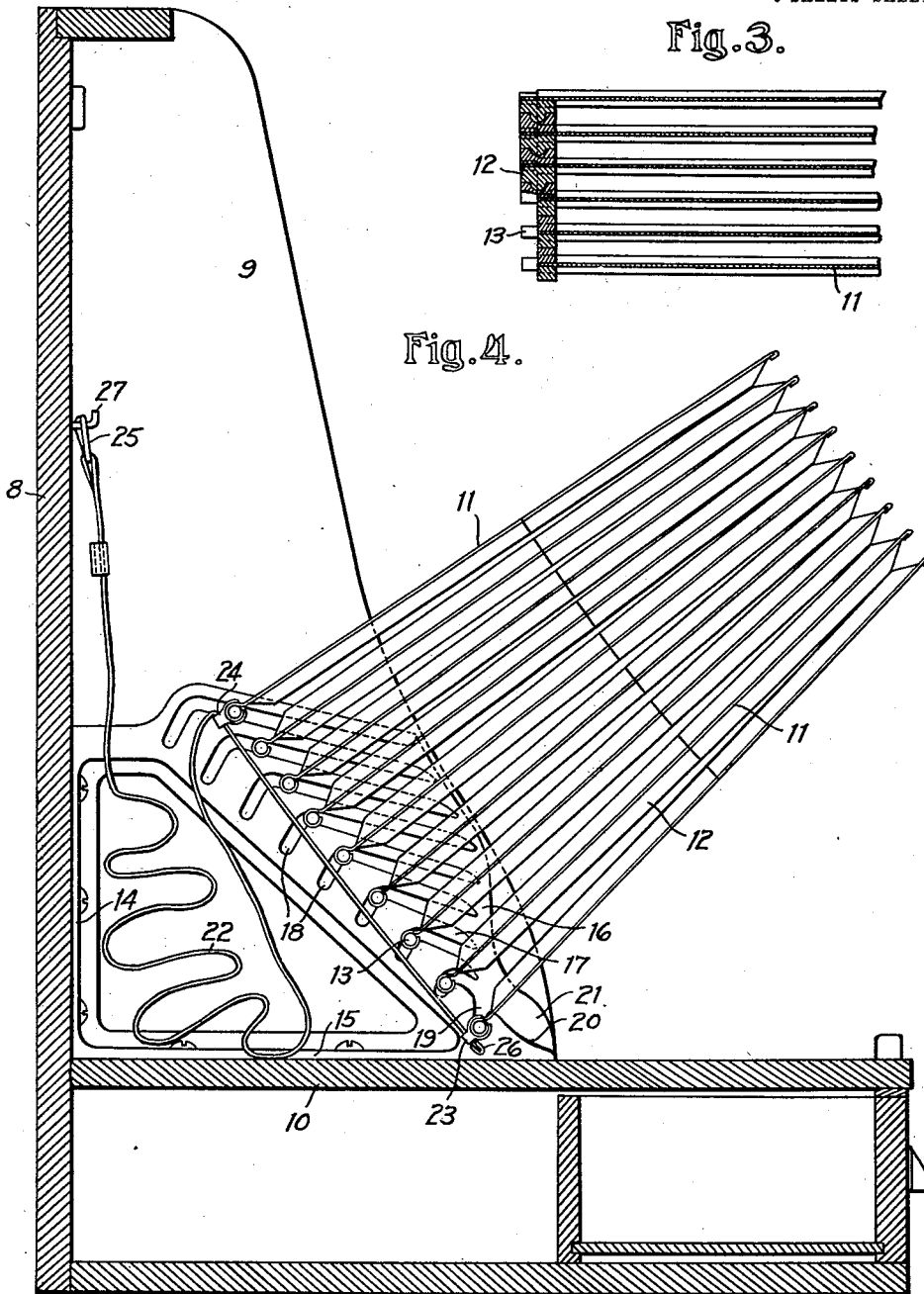


Fig. 4.



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3 SHEETS-SHEET 3.

Fig. 5.

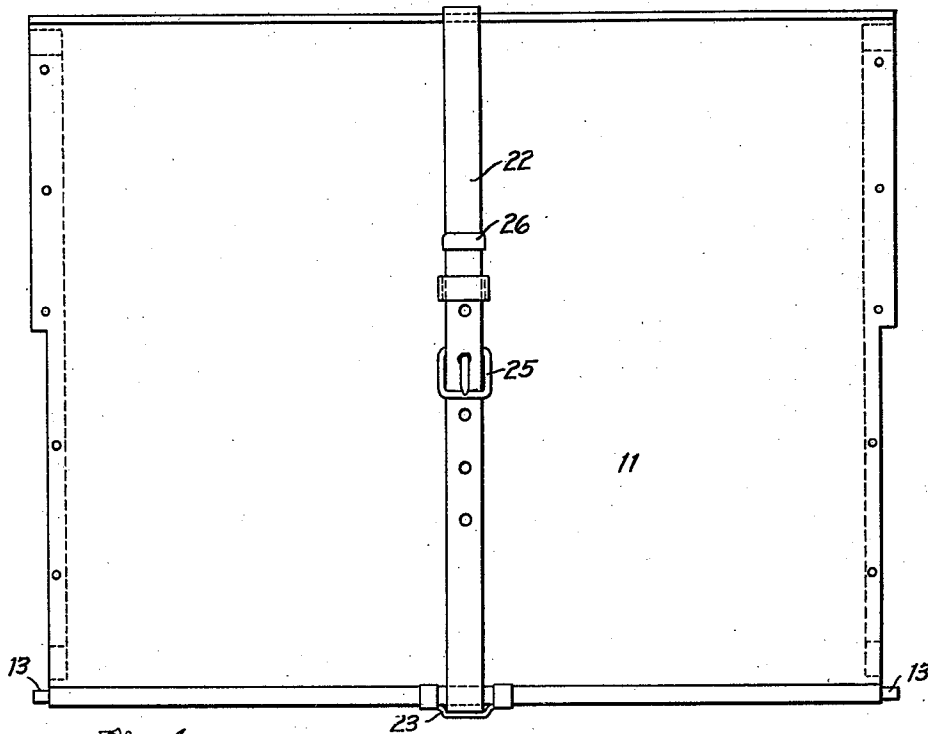


Fig. 6.

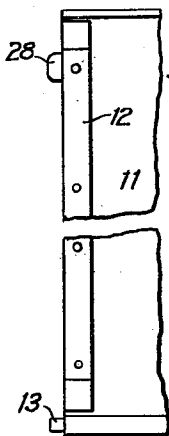


Fig. 8.

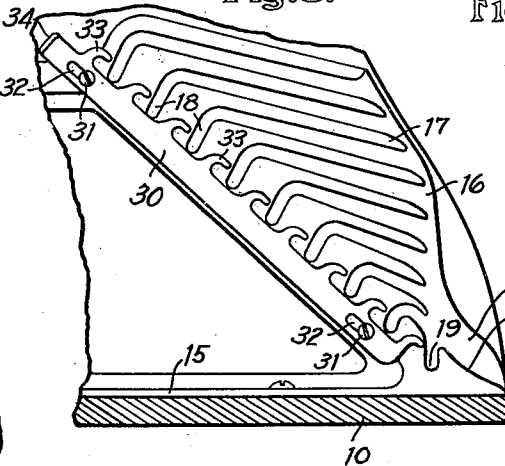
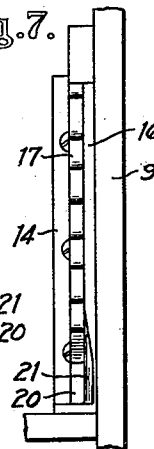


Fig. 7.



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UNITED STATES PATENT OFFICE.

ALBERT F. STAPLES, OF CANISTEO, NEW YORK.

ACCOUNT-REGISTER.

1,023,889.

Specification of Letters Patent.

Patented Apr. 23, 1912.

Application filed November 29, 1911. Serial No. 663,040.

To all whom it may concern:

Be it known that I, ALBERT F. STAPLES, a citizen of the United States, and resident of Canisteo, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Account-Registers, of which the following is a specification.

This invention relates to account-registers or filing-cabinets of the type in which a series of leaves or frames are mounted upon a support in such a manner that they may be swung, about independent pivotal bearings, into either horizontal or upright position, to afford access to their several surfaces. In account-registers of the type in question it is common to so connect the leaves or bill-holder frames with the support or the cabinet in which they stand when in use that they may be readily detached therefrom to permit the frames to be stored in a safe, or other secure place, when not in use.

The object of the present invention is to produce an account-register having the bill-holder frames so removable, the invention residing particularly in simple and effective means for guiding the frames severally to their operative positions when they are inserted in the support or cabinet.

The invention is designed particularly to produce a construction adapted for use in what may be designated as a "loose-leaf" register, that is to say, a register so constructed that the bill-holder frames are not permanently connected together in any manner, so that when they have been removed from the support they may, if desirable, be separated into groups of any required size for convenience in storing, or may be separately removed when necessary to repair or replace any of them.

To the foregoing ends the invention consists in the account-register hereinafter described, as it is defined in the succeeding claims.

In the drawings:—Figure 1 is a vertical section of an account-register embodying the present invention; Fig. 2 is a vertical section of a portion of the register, showing the manner in which the pivots are guided in inserting the bill-holder frames in the cabinet; Fig. 3 is a partial transverse section of a plurality of the bill-holder frames, illustrating particularly the tongue-and-

groove connections between the adjacent frames; Fig. 4 is a vertical section showing the manner in which the frames are removed from the supports; Fig. 5 is a front-elevation of the bill-holder frames as removed from the supports and secured together; Fig. 6 is a partial front-elevation of a bill-holder frame having a slightly modified construction; and Fig. 7 is a front-elevation of one of the supporting and guiding members.

The invention is illustrated as embodied in an account-register having a cabinet of ordinary form, comprising an upright back 8, side-members 9, and a horizontal base-portion 10. The general construction of the bill-holder frames is also familiar, each frame comprising a flat sheet-metal body 11 which is stiffened at the lateral edges by bars 12, and is provided, at its lower edge, with a wire which projects beyond the adjacent lateral edges of the body so as to produce pivots 13 for supporting the frame when it is in operation.

The invention is embodied particularly in the guiding and supporting device illustrated in Figs. 1 and 7. This device is provided with a bracket-shaped portion comprising flanges 14 and 15 which engage, respectively, the back and the base of the cabinet, being secured thereto by screws. Supported by the members 14 and 15 is a plate 16 which rests against the inner surface of the side of the cabinet. This plate is provided with a series of flanges 17 projecting inwardly therefrom and constituting guides, as will be hereinafter described. The spaces between the several guide-flanges 17 constitute guide-slots, which are inclined first upwardly, from the front of the support, and then downwardly at their rear portions, and which terminate in bearings 18 adapted to cooperate with the pivots 13 of the bill-holder frames, so as to support the frames in position for operation, with their upper and lower edges arranged in an inclined plane, as is common in account-registers of the type in question. By tapering the flanges 17 toward their forward ends, as shown in Fig. 1, the guide-slots 16 are formed with converging upper and lower walls or surfaces. In this manner the introduction of the pivots into the slots is facilitated so as to compensate for slight variations in the thicknesses of the frames,

while at the same time the pivots, as they are moved rearwardly, are brought accurately into engagement with their respective bearings by the converging surfaces. It will be understood that a similar guiding- and supporting-member is mounted upon the side of the cabinet not shown in the sectional view of Fig. 1, so that the bill-holder frames are similarly guided and supported at both of their lower corners.

In addition to the bearings 18 formed as above described, each support has, near the front, a bearing 19 which is adapted to receive the pivots of the foremost bill-holder frame, and which opens directly upward. The forward extremity of the support terminates in an inclined surface 20 and a laterally-beveled surface 21; which are adapted to assist the insertion of the pivots of the foremost frame in the bearings 19.

The bill-holder frames are illustrated as entirely independent of one another, so that they may be readily separated when removed from the supports. For convenience in handling the frames, however, when they are removed from the supports, a strap 22 is provided for fastening the frames together. This strap passes through loops 23 and 24 at the middle of the lower edges of the foremost and rearmost frames, respectively, and it has, at one end, a buckle 25 and, at the other end, a metal tip 26, which prevent it from becoming withdrawn from the loops. When the frames are in the cabinet the buckle may be placed upon a hook 27 provided for the purpose of supporting it in convenient position, and the slack of the strap lies in the back of the cabinet, as in Fig. 1. To further secure the frames against relative movement when removed from the supports, the contiguous surfaces of the stiffening-bars 12 are provided with tongues and grooves which interlock, as shown in Fig. 3, and these tongue-and-groove connections assist in guiding the frames when they are being inserted in the cabinet.

To enable the bundle of bill-holder frames to rest horizontally upon their lateral edges, when convenience requires this position, the upper portions of the frames are made wider than the lower portions, as shown particularly in Fig. 5, these upper portions overhanging and alining with the pivots 13. An alternative construction, which accomplishes the same result without the necessity of cutting away the strips 12 as in Fig. 5, is shown in Fig. 6. Here the bill-holder frame is of uniform width but is provided, near its upper corners, with lateral projections 28, which may conveniently be in the form of rubber knobs, of the same length as the pivots 13.

The manner in which the bill-holder frames are inserted in the cabinet is illus-

trated particularly in Fig. 2. The frames, while strapped together, are laid upon the base 10 of the cabinet, and are then pressed rearwardly so as to cause the pivots 13 of the foremost bill-holder frame, which at this time is at the bottom of the series, to enter between the beveled surfaces 21 and slide upwardly on the surfaces 20 until they drop into the bearings 19. The strap 22 is then unbuckled and drawn rearwardly through the loops 23 and 24 and the buckle placed on the hook 27. After the bill-holder frames have been released from the strap, as just described, they are forced rearwardly by pressure against their edges, thus causing them to slide one upon the other. By this movement the pivots 10 of each bill-holder frame are brought into engagement with a pair of corresponding guide-flanges 14 on the two supports, as shown particularly in Fig. 2, and, as the rearward movement is continued, the pivots slide upwardly on these guide-flanges until they reach the descending portions of the slots terminating in the pivot-bearings 18. In this manner the several pivots are guided to their respective bearings, and at the same time the several frames are raised and separated at their pivoted edges, so as to provide the clearance between them, at this point, necessary for convenient operation of the account-register. By arranging the forward ends of the guide-slots approximately in vertical relation with each other, and at distances corresponding approximately with the thickness of the respective bill-holder frames, the introduction of the frames to the cabinet is greatly facilitated since the frames, when lying loosely superposed upon one another, require only to be thrust rearwardly in order to cause them properly to engage the guide-slots, and in the further movement of the frames the guide-slots automatically direct each pivot to its normal operative position in the appropriate bearing. When the pivots 13 are in the bearings 18 they are retained therein by the weight of the bill-holder frames, and the account-register is then used in the ordinary manner, by swinging the frames singly, or in any required number, from upright to horizontal position and vice versa. The position of the frames laterally, with respect to the cabinet, is determined by the engagement of the ends of the pivots with the plates 16, whereby chafing of the edges of the frames against the sides of the cabinet is prevented.

The removal of the frames from the supports is accomplished most conveniently in a somewhat different manner from their insertion. To remove them they are preferably swung downwardly to an inclination of about 45°, in which position their upper edges are in alinement, substantially as

shown in Fig. 4. Having swung the frames to this position, the operator then holds them tightly together at their upper edges, thus preventing relative sliding movement of the frames, and upon a continued downward swinging movement of the frames the pivots of all of the frames, except the foremost one, are compelled to rise from their bearings, and traverse the guide-slots until the frames reach a horizontal, superposed position, whereby all the pivots are withdrawn from the guide-slots. The frames may then be secured together by passing the strap 22 around them and buckling its ends together, and the frames are then removed from the cabinet and handled *en masse* to insert them in a safe, or for any other purpose.

When the account-register is in use the pivots of the bill-holder frames, as above stated, are retained in the bearings 18 by the weight of the bill-holder frames, and it is not essential to provide any specific means for so retaining them. As it is possible, however, through careless handling of the register, to cause the pivots to rise from the bearings, it may, in some instances, be desirable to employ a retaining-device to prevent this, and accordingly I employ the construction shown in Fig. 8. The retaining-device is in the form of a strip of thin sheet-metal 30, which is mounted at the inner surface of each guiding- and supporting-member, this strip being slidably mounted on screws 31 passing through slots 32 in the retainer. The upper edge of the strip is shaped to form a series of hooks 33 corresponding with the respective bearings 18. After the bill-holder frames have been inserted in place, the retainer is slid downwardly, thus causing the several hooks to engage the respective pivots and retain them positively in their bearings. The upper end of the retainer is provided with a lug 44 for its convenient manipulation, and when the frames are to be removed from the cabinet the retainers are first drawn upwardly by means of these lugs, thus releasing the pivots and leaving the retainers in the position shown in Fig. 8.

A valuable feature of the present construction resides in the fact that, owing to the absence of permanent connections between the bill-holder frames, and to their independent pivotal support in the cabinet, any number of frames may, at any time, be removed, inserted, or exchanged, within the limitation imposed by the number of bearings provided in the cabinet, and when a smaller number of frames is required they may be used with the same facility as the full set. Owing to this arrangement a register originally employed for a small number of accounts may be expanded, as occasion arises, in a manner analogous to that in which a loose-leaf account-book is ex-

panded. It is also obvious that when only a part of the frames are in use these frames may be removed, at night, for safe-keeping, while the unused frames may be left in the cabinet.

Although the invention is herein described as employed particularly in an account-register, it will be understood that it is applicable generally to filing-devices of the type in question; and that, in general, it is not limited to the embodiment thereof hereinbefore described and illustrated in the accompanying drawings, but may be embodied in various forms within the nature of the invention as it is defined in the following claims. It will also be understood that where the term "bill-holder frames" is used in the claims, this term is intended to designate generally a leaf or frame adapted for filing purposes, and that it is not intended to limit the claims to the use of a leaf or frame necessarily adapted for use in filing bills.

I claim:—

1. An account-register having, in combination, a plurality of bill-holder frames provided with pivots adjacent their lower edges, and means for supporting the frames when in use; said means comprising a series of pivotal bearings arranged in an inclined plane and adapted to receive the respective pivots of the bill-holder frames, and a series of guides extending to said bearings, respectively, first upwardly and rearwardly, and then downwardly, so as to receive the respective pivots and guide them first upwardly and then downwardly into the bearings when the frames are moved rearwardly into engagement with the supporting-means.

2. An account-register having, in combination, a support provided with a series of separate pivotal bearings arranged in an inclined plane, a plurality of bill-holder frames, with pivots adjacent their lower edges, adapted to be supported independently in said respective pivotal bearings and removable or replaceable therein independently of each other, guides extending rearwardly to said bearings and adapted to receive said pivots severally and guide them to their respective bearings, and means permanently secured to one of the frames for temporarily securing the frames together in a group when removed from the cabinet.

3. An account-register having, in combination, a plurality of bill-holder frames provided with pivots adjacent their lower edges, means for supporting the frames when in use, said means comprising pivotal bearings for the respective frames, arranged in an inclined plane; and means for guiding the frames severally into engagement with said bearings when the frames are applied to the supporting-means, said guid-

ing-means being adapted to move the edges of the frames away from each other as the frames are introduced thereto.

4. An account-register having, in combination, a plurality of independent bill-holder frames provided with pivots adjacent their lower edges, means for supporting the frames in operative condition, said means comprising a series of pivotal bearings arranged in an inclined plane and separated by spaces substantially greater than the thickness of the frames, and a series of guides for receiving said pivots severally and guiding them to the respective bearings,

said guides communicating, respectively, with the bearings and their forward ends being in approximate vertical relation and separated vertically by spaces approximately equal to the thickness of the frames, whereby the guides are adapted to receive the pivots of the several frames when the latter, in substantially horizontal superposed positions, are slid rearwardly.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
