No. 782,996. PATENTED FEB. 21, 1905.

C. A. SWIGART.

ATTACHMENT FOR ADDING MACHINES.

APPLICATION FILED JULY 2, 1904.

Fig. 1.

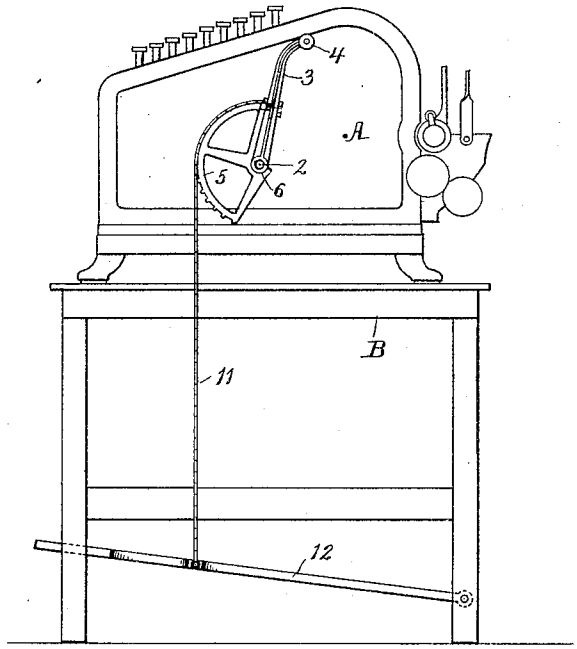


Fig. 2.

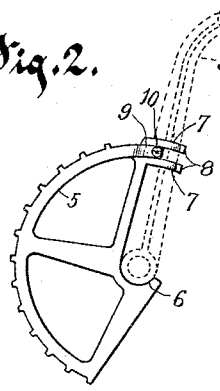


Fig. 3.

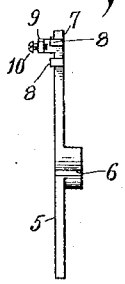


Fig. 4.

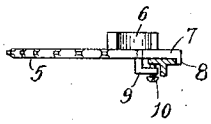


Fig. 5.

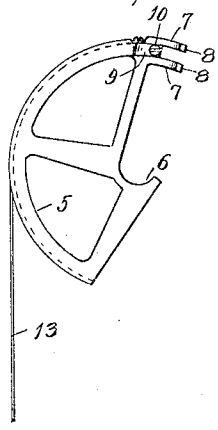
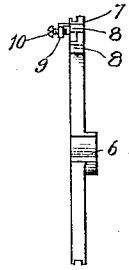


Fig. 6.



Witnesses.

Anna F. Schmidtbauer

Alma Klug

Inventor.

Carl A. Swigart

By Benedict & Morsell

Attorneys.

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UNITED STATES PATENT OFFICE.

CARL A. SWIGART, OF MILWAUKEE, WISCONSIN.

ATTACHMENT FOR ADDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 782,996, dated February 21, 1905.

Application filed July 2, 1904. Serial No. 215,046.

To all whom it may concern:

Be it known that I, CARL A. SWIGART, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Attachments for Adding-Machines, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

In adding-machines and in other machines of an analogous character there are series of keys, usually arranged in bank, which are adapted to be severally depressed, and thereby to move and set type-arms and type in positions to be printed or to accomplish some registering act, which printing or registering act is accomplished by the simultaneous moving of the thus set or adjusted type, and this moving of the type by a single act is obtained by the limited rotation of a rock-shaft, which rotation of the rock-shaft is accomplished by the operator by taking hold of a handle on a radial arm on the rock-shaft and swinging it limitedly. As the user of one of these machines is frequently required to employ one hand in handling checks, drafts, or other slips or memoranda on paper while the other hand is busy depressing the keys by means of which the type are set, it is embarrassing and involves a loss of time to be compelled to let go of the work in which either hand is employed to take hold of and shift the arm on the rock-shaft, which must be shifted to move the type for printing or registering the number or numbers represented thereby.

The object of my invention is to provide a means that can be attached to the rock-shaft and its swinging arm of one of these machines in such manner that it can be operated by the foot of the operator to oscillate or rock the shaft of the machine, thus obviating the necessity of using the hand for that purpose.

In the drawings, Figure 1 is an elevation of an adding-machine standing on a table with my improved attachment applied thereto. Fig. 2 is an enlarged view of a principal part of my improved device in connection with the rock-shaft and handle-arm thereon shown in dotted lines. Fig. 3 is an edge view of the principal part of my device shown in Fig. 2. Fig. 4 is an edge view of the same device looked at toward that edge which is at the top in Fig. 3 and in connection with a form of handle-arm shown in cross-section. Fig. 5 is an elevation of a slightly different form of the principal part of my improved device, and Fig. 6 is an edge view of the form of device shown in Fig. 5.

In the drawings, A is an end elevation of an adding-machine.

B is a table on which the adding-machine rests when in use.

The specific form of adding-machine is not of importance, as my invention is adapted to be applied to any adding-machine or other machine of analogous character having a rock-shaft and a swinging rock-shaft handle adapted to be swung for rotating the rock-shaft limitedly. Also the form of table on which the machine stands is not important, as any suitable support for the machine may be employed therefor.

In the drawings, 2 is the rock-shaft of the machine, which is employed for moving the type to produce the printing or registering of the number or numbers set by the depression of the keys of the machine.

3 is the lever-arm of the machine, fixed on the rock-shaft 2, which lever-arm terminates at its free end in a handle 4, ordinarily adapted to be taken hold of by the hand of the operator for swinging this lever-arm. In use this lever-arm is required to be swung from its nearly-upright initial position over toward the front of the machine, or to the left, as seen in Fig. 1, to the extent of forty-five or fifty degrees to accomplish the work which the rock-shaft does.

My improved device consists of a segment 5 of a wheel, which segment is advisably of substantially semicircular form, although the segment may be of less length than a semicircle, though not advisably so. This segment of a wheel is provided with a recessed or socketed partial hub 6, which is adapted to fit on the under side about the hub of the lever-arm 3 on the rock-shaft 2, and at its upper edge, at the end of the arc of the segment, the segment is provided with a finger or fingers 7 7, adapted to pass under and lie against the under surface

of the lever-arm 3, and at their extremities these fingers are provided with a lug or lugs 8 8, that are adapted to fit against the rear edge of the lever-arm 3. At the front the segment is provided with a finger 9, adapted to fit to and rest on the outer surface of the lever-arm 3, and when such lever-arm has a medial longitudinal rib, as is common with such lever-arms, this finger 9 may abut against the rib of the lever-arm. This finger 9 is also provided with a set-screw 10, adapted to turn through the finger against the surface of the lever-arm, and thereby to hold the segment more firmly in position on the lever-arm. These fingers 7 7 and 9 are preferred forms of construction for securing this outer edge of the segment to the lever-handle, as this form of construction may be inexpensively cast, but is not to be deemed a necessary form of construction, since an equivalent device or devices may be employed instead. It will be understood that by these means of attaching the segment 5 to the rock-shaft and lever-arm it is readily attachable to any machine and as readily detachable therefrom. The segment 5 as thus made and attached to the rock-shaft 2 and lever-arm 3 has an exterior circumferential arc that is at and adapted to travel through a point at a distance horizontally from the axis of the rock-shaft 2, thus being adapted to serve as a lever-arm for rocking the shaft.

In the form of segment shown in Figs. 1, 2, and 4 the segment is provided with a toothed perimeter, and a sprocket-chain 11, secured at its upper end to the upper or highest portion of the segment, runs on the teeth of the segment and depending therefrom is attached medially to a treadle 12, which may be pivoted at its rear end to the leg of the table or to any other suitable support. By this construction the operator of the machine instead of using his hand to swing the lever-arm 3 to the left for accomplishing the printing or registering act may place his foot on the treadle 12 and forcing it down will rotate the rock-shaft to the required extent, thus obviating the need for using his hand for that purpose.

In the form of device shown in Figs. 5 and 6 the segment is shown as having a channel in its perimeter, with which a flexible strap or cord 13 may be employed instead of the sprocket-chain 11, that is employed with a segment provided with teeth.

Should it be deemed desirable to omit the detachable feature of my improvement, the wheel-segment could be cast or made integrally with the lever-arm of the rock-shaft, and such wheel-segment rigid on the lever-arm being provided with a chain, strap, or cord, and thereby connected to a treadle, would serve the purpose of my invention, except the being detachable from the lever-arm.

What I claim as my invention is—

1. An attachment for an adding or analogous machine, comprising a wheel-segment, means for securing the wheel-segment detachably to a type-manipulating rock-shaft in such machine, a flexible actuating means secured to and fitting on the perimeter of the segment, and means for forcibly pulling downwardly on the flexible actuating means.

2. An attachment for an adding or analogous machine, comprising a wheel-segment having a socketed hub and arm-clasping means at a distance from and opposite to the socket in the hub adapted to secure the wheel-segment detachably to the hub and lever-arm of a rock-shaft in such machine, and means attached to the wheel-segment at a distance radially from its axis adapted by pulling downwardly thereon to rotate the rock-shaft limitedly.

3. A detachable attachment for an adding or analogous machine, comprising a wheel-segment having a socketed hub adapted to fit on the hub of a lever-arm on a rock-shaft in such machine, fingers radially distant from the hub and at the opposite side of the axis of the wheel-segment adapted to fit under and upon the lever-arm and means in connection with the fingers for securing them to the lever-arm, and flexible means secured to and running on the perimeter of the wheel-segment and depending therefrom adapted on being pulled down to rotate the rock-shaft limitedly.

4. A detachable attachment for an adding or analogous machine, comprising a toothed wheel-segment, a partial hub of the wheel-segment forming a socket concentric with its axis, fingers on the segment radially distant and on the opposite side of the axis from the socket said fingers being adapted to clasp a lever-arm, a chain secured to and running on the toothed perimeter of the segment, and a treadle to which the chain is attached.

In testimony whereof I affix my signature in presence of two witnesses.

CARL A. SWIGART.

Witnesses:
C. T. BENEDICT,
J. M. C. BENEDICT.