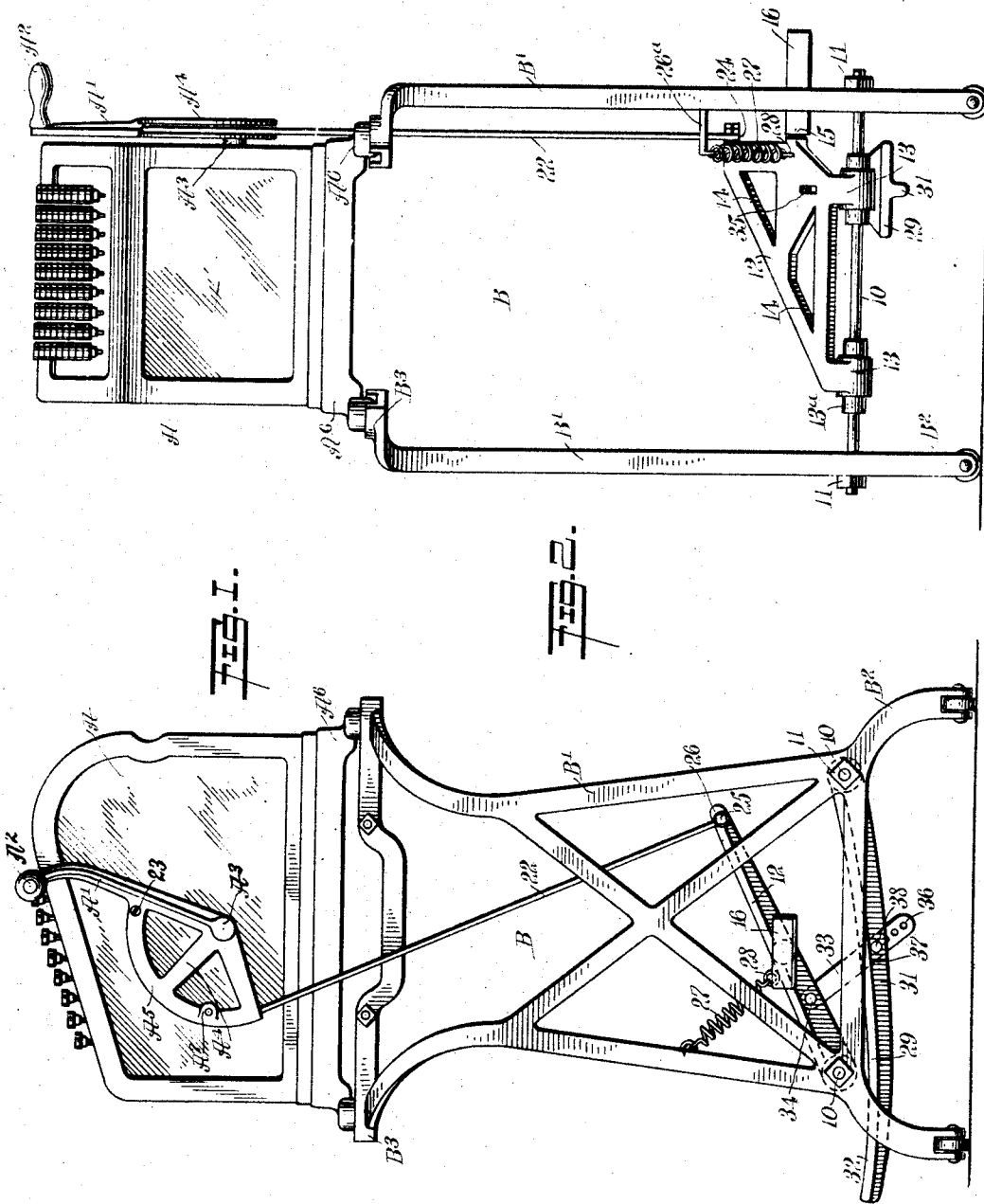


C. L. DOWNER.
 ADDING MACHINE ATTACHMENT.
 APPLICATION FILED APR. 19, 1910.

980,765.

Patented Jan. 3, 1911.

2 SHEETS—SHEET 1.



WITNESSES:
 G. Robert Thomas
 John K. Brachvogel

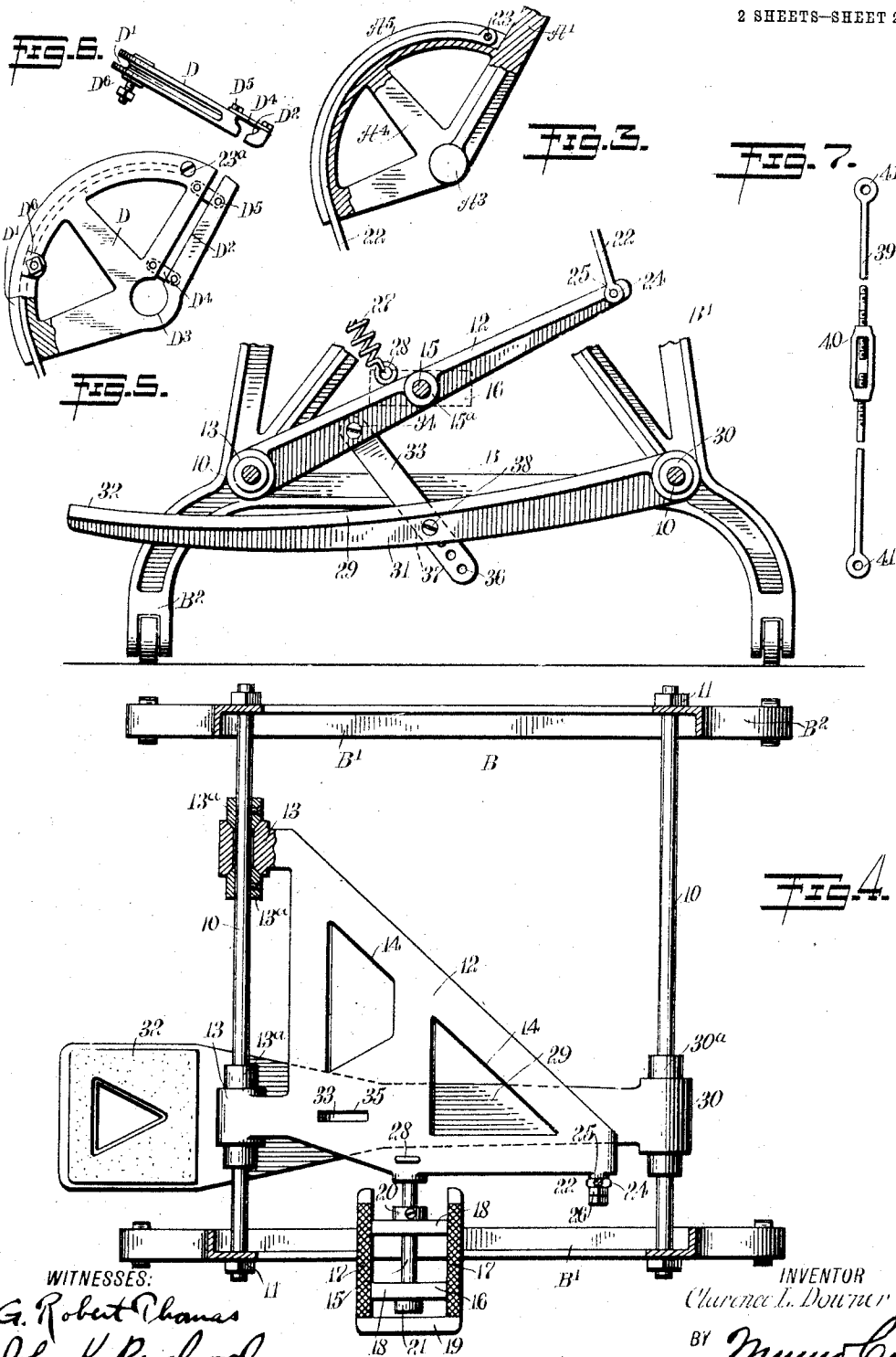
INVENTOR
 Clarence L. Downer
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 ATTORNEYS

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UNITED STATES PATENT OFFICE.

CLARENCE LEONARD DOWNER, OF IDAHO FALLS, IDAHO.

ADDING-MACHINE ATTACHMENT.

980,765.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed April 19, 1910. Serial No. 556,295.

To all whom it may concern:

Be it known that I, CLARENCE L. DOWNER, a citizen of the United States, and a resident of Idaho Falls, in the county of Bingham and State of Idaho, have invented a new and Improved Adding-Machine Attachment, of which the following is a full, clear, and exact description.

This invention relates to attachments for adding machines, and like devices, and has reference more particularly to an attachment of this class, comprising means for operating by foot-power, the hand-crank or other like manipulating member of the adding machine.

The object of the invention is to provide a simple, strong and efficient attachment for adding machines, other calculating machines, and like devices, which can be applied to the machine without altering the construction thereof or affecting the operation of the same, which can be used with machines of different types, sizes, and constructions, which facilitates and accelerates the operation of the machine, and which permits foot-power to be used for performing operations ordinarily effected with the hands, thereby leaving the latter free to be used for other purposes.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a side elevation of an adding machine having an attachment of my invention applied thereto; Fig. 2 is a front elevation of the machine with the attachment; Fig. 3 is a vertical section of the lower part of the machine supporting frame, showing details of the attachment, and illustrating also, the hand-operable member connected with the attachment and operated thereby; Fig. 4 is a transverse section showing the pedal mechanism of the attachment; Fig. 5 is a side elevation of a detachable segment, for use in connection with an adding machine having an operating handle to which the segment can be secured, a part of the segment being broken away; Fig. 6 is a plan view of the segment shown in Fig. 5; and Fig. 7 is a side elevation of a pitman, hav-

ing parts broken away, and constituting a modified detail of construction of the device.

Before proceeding to a more detailed explanation of my invention, it should be clearly understood that while I have illustrated the attachment employed, for example, with an adding machine known as the "Burroughs adding machine" it can also be advantageously used with other forms of adding machines, other calculating machines and like devices, in which certain operations are performed by rocking or otherwise actuating a hand-crank or like element. I provide means for applying foot-power to this element, to cause it to effect its function, thereby leaving both hands of the operator free at all times to be used for other purposes. In this way the operation of the adding or other machine can be materially facilitated. Certain of the details form no part of this invention, and can be varied in accordance with individual preference and special conditions, without departing from the underlying spirit of the invention.

Referring more particularly to the drawings, I have shown an adding machine A, having a hand-crank A', provided with a grip A², by means of which it can be manipulated, the crank being pivotally mounted at the side of the machine, by means of a shaft or spindle at A³. It has associated therewith a segment A⁴, which has a grooved edge A⁵. A stand B, comprises similar members B', provided with feet B². The members B', at the upper ends, have laterally disposed, recessed extensions B³ formed to receive the feet A⁶ of the adding machine. In this way, the latter can be conveniently mounted upon the stand.

If the adding machine has a hand-crank only, and is not provided with a segment permanently associated with the hand-crank, I employ a detachable segment D, provided with a grooved, peripheral edge D' and a radial opening D² provided at its inner end with an enlargement D³. The opening D² is formed to receive the handle of the adding machine, the hub of which is located in the opening D². The segment has cross-pieces D⁴, extending over the opening, and held in place by set-screws D⁵. They serve to secure the segment to the handle.

Rods or shafts 10 extend across the stand, from one of the members B' to the other, being located in suitable openings of the mem-

bers B', and have threaded ends, on which
 suitable retaining nuts 11 are screwed to se-
 cure the shafts in place. They are located
 respectively, at the front and the back of the
 stand. An operating member 12 has offset
 hubs 13 by means of which it is mounted to
 rock upon the front shaft or pivot rod 10.
 The hubs have the ends inwardly beveled,
 and are held in place by correspondingly be-
 veled collars 13^a, secured upon the rod 10 by
 set-screws. The member is substantially tri-
 angular, and has parts 14 cut away for the
 purpose of decreasing the weight of the mem-
 ber. It has at one side a removable spindle
 15, which is in threaded engagement with a
 boss 15^a of the member. The spindle extends
 to the outside of the stand, and has a pedal 16
 rotatably mounted thereon. The pedal com-
 prises bars 17, having roughened surfaces,
 connected by means of cross-pieces 18 and an
 end piece 19. The cross pieces have open-
 ings, by means of which the pedal is mounted
 upon the spindle. The latter has a retaining
 collar 20, and at the end a head 21, to prevent
 the movement of the pedal longitudinally of
 the spindle. A flexible connecting member
 22, consisting for example, of a leather strap
 of round cross-section, has one end arranged
 in the grooved edge A⁵ or D', of a segment,
 and has the extremity secured adjacent to the
 hand-crank, by means of a screw 23 or 23^a.
 At the lower end, the flexible member 22 has
 an eye 24 secured upon a lug 25 of the operat-
 ing member, and held in place by retaining
 nuts 26. The segments have lugs A⁷ and D⁶,
 provided with screws by means of which a
 pitman 39, provided with a take-up nipple
 40, can be secured to one of the segments or
 to the lug 25, the pitman having at the ends,
 eyes 41, for the purpose. It may be used, if
 so desired, to replace the flexible member 22.
 One of the stand members B' has an inward
 projection 26^a, to which is fastened one end
 of a helical or other spring 27. The other
 end of the spring 27 is fastened to an eye 28
 of the operating member 12. The spring
 serves to hold the operating member in a nor-
 mal, elevated position, as is shown for ex-
 ample, in Figs. 1 and 3.
 A foot lever 29 has a hub 30, by means of
 which it is mounted to rock upon the rear
 pivot rod or shaft 10. The hub 30 is held in
 place by collars 30^a, similar to the collars 13^a.
 The foot lever is preferably slightly curved,
 and has a strengthening rib or flange 31. At
 the forward end it projects beyond the stand,
 and has a rubber or other surface 32, which
 tends to prevent the foot slipping from the
 end of the lever. A link 33 has its upper
 end pivoted by means of a suitable pin or
 screw 34, in a slot or opening 35 of the oper-
 ating member. At the other end, the link
 33 has a plurality of openings 36, and is ad-
 justably received in a suitable slot or open-
 ing 37 of the foot lever. By means of a

pivot pin or screw 38 which passes through
 any one of the openings 36, the lower end of
 the latter can be suitably connected with the
 foot lever. By depressing the foot lever by
 means of the foot, the operating member is
 rocked downward against the tension of the
 spring 27, and through the connecting flexi-
 ble member 22, rotates the spindle A⁵ with-
 out necessitating the use of the hand. The
 same action can be effected by pressing down-
 ward with the foot, upon the pedal 16. In
 this way, either foot, or both feet, can be
 used to operate the hand-crank device of the
 adding machine. As soon as the foot pres-
 sure is released, the spring returns the parts
 to their normal positions, and the hand-
 crank is free to return to its normal position.

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

Patent:—
 1. The combination, with a stand and an
 adding machine mounted thereon and hav-
 ing a hand crank, of members carried by
 said stand, and a connection between said
 members and said hand crank, each of said
 members being operable by foot power.

2. The combination, with an adding ma-
 chine having a hand operable member, of op-
 eratively connected devices, each adapted to
 be actuated by foot power independently of
 the other, one of said devices having an op-
 erative connection with said member.

3. The combination, with a stand, and an
 adding machine mounted thereon and hav-
 ing a hand-crank, of an operating member
 pivotally carried by said stand, a spring
 tending to maintain said operating member
 in a normal position, an operative connection
 between said member and said hand-crank,
 a pedal carried by said member and serving
 to permit its operation by foot-power, and a
 foot lever pivotally carried by said stand,
 and operatively connected with said operat-
 ing member.

4. The combination, with a stand, and an
 adding machine mounted thereon and hav-
 ing a hand-crank, of an operating member
 pivotally carried by said stand and having
 a pedal, a spring tending to maintain said
 operating member in a normal position, a
 connection between said member and said
 hand-crank, a lever pivotally carried by said
 stand and operable by foot-pressure, and an
 adjustable link connecting said member and
 said foot lever.

5. The combination, with an adding ma-
 chine having a hand lever, of a segment pro-
 vided with a peripheral groove, and a radial
 opening provided at its inner end with an
 enlargement, said opening being formed to
 receive said hand lever of the adding ma-
 chine, said enlargement serving to receive
 the hub of said hand lever, a cross piece
 mounted upon said segment and extending
 over said opening, a foot-operable member,

and a flexible member secured to said foot operable member and extending longitudinally of said groove, said flexible member being secured in said groove.

- 5 6. The combination with a stand, and a machine mounted thereon and having a hand-crank, said stand having at the front and at the back thereof pivot rods, of an operating member pivotally mounted upon
10 said front rod and having a pedal, a spring secured to said member and said stand, and holding said member in a normal position,

an operative connection between said member and said handcrank, a foot lever pivoted at said back rod and operable by foot pressure, and a link adjustably connecting said member and said foot lever.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CLARENCE LEONARD DOWNER.

Witnesses:

A. C. JENSEN,
A. S. SIMS.