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C. E. LOVETT & M. E. COE.

TREADLE.

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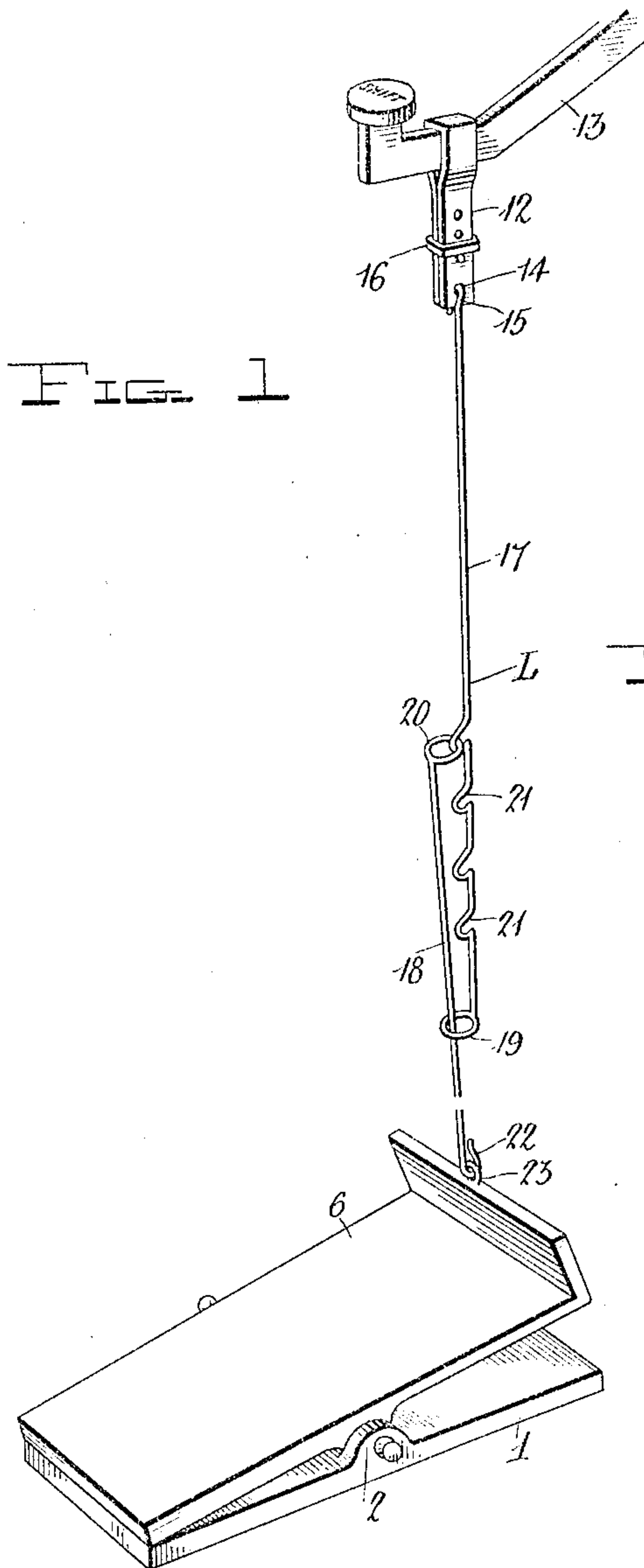
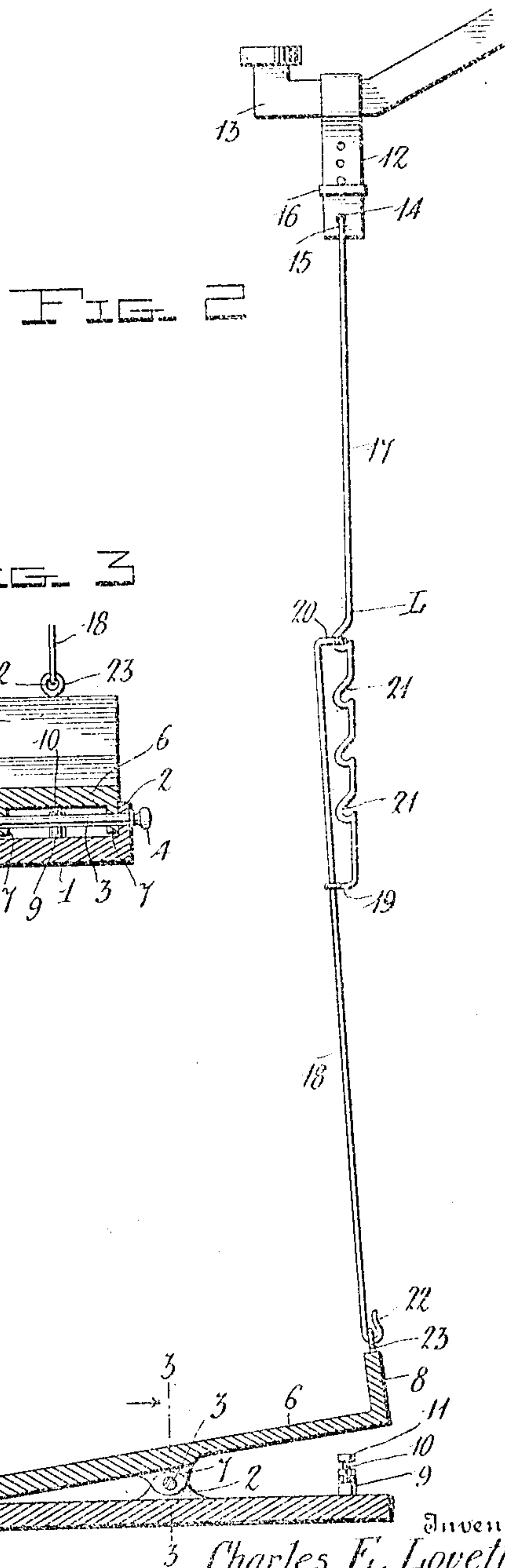
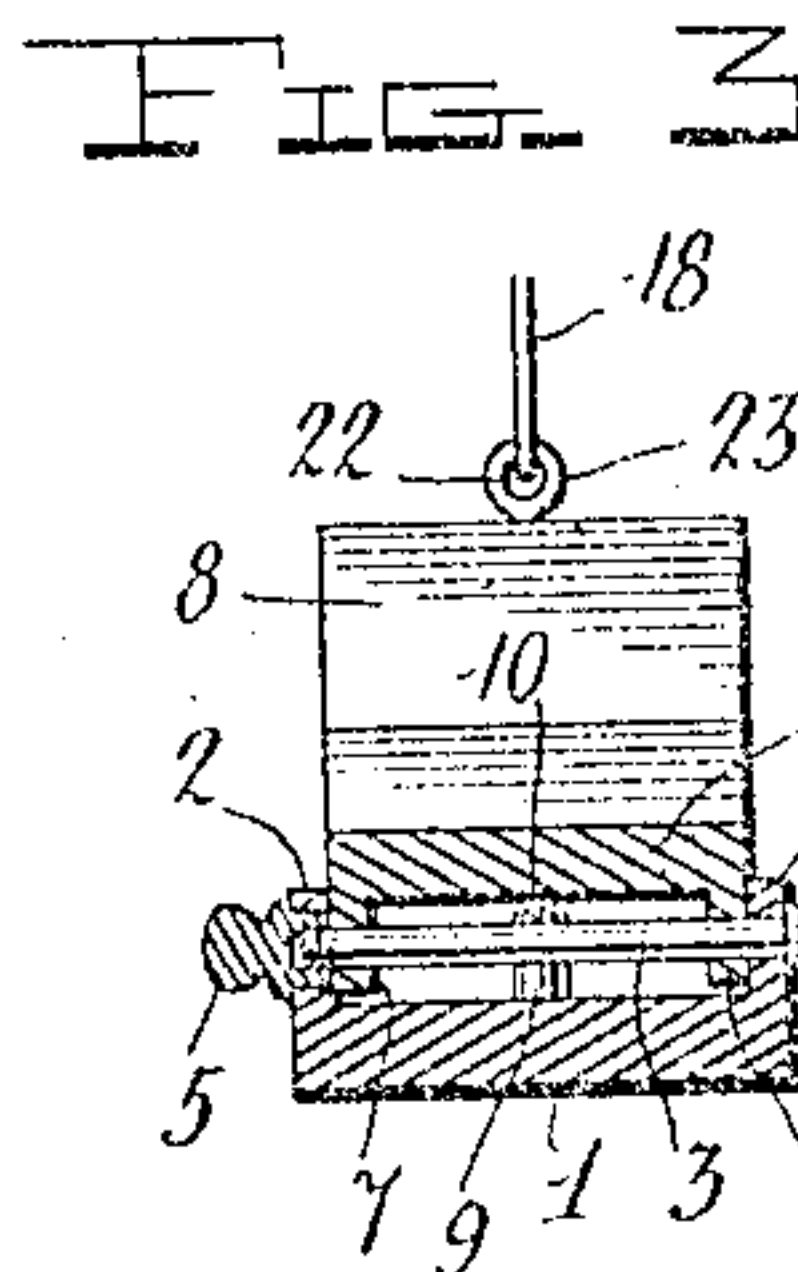


FIG. 1



T **I** **E** **S**



Witnesses

W. J. Britton
Wm. Bagges

Inventor
3 Charles E. Lovett
and Marion E. Coe

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

CHARLES E. LOVETT AND MARION E. COE, OF BIRMINGHAM, ALABAMA.

TREADLE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, CHARLES E. LOVETT and MARION E. COE, citizens of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented new and useful Improvements in Treadles, of which the following is a specification.

This invention relates to treadles adapted to be used as a typewriter attachment for the purpose of operating the shift keys of typewriting machines; said treadle being also applicable to other uses or purposes for the purpose of operating or actuating levers that are usually operated by hand; the object of the invention being to provide a simple, convenient and efficient device by means of which shift keys and other similar levers may be conveniently and effectively operated by foot power, thus saving the strain upon the fingers of the hand of the operator and enabling greater speed to be attained in the performance of the work.

Other objects of the invention are to simplify and improve the construction and operation of this class of devices; to provide means for accurately gaging or regulating the stroke; and to provide simple and improved means for applying the device in position for operation, and for adjusting the length of the link or member that constitutes the pitman construction.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing, Figure 1 is a perspective view showing the improved treadle applied in operative position to the shift key of a typewriting machine. Fig. 2 is a sectional side elevation. Fig. 3 is a vertical transverse sectional detail view taken on the plane indicated by the line 3—3 in Fig. 2.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved device comprises a base piece 1 provided at its side edges with upward extending apertured lugs or ears 2—2 for the passage of a rod or stem 3 having at one end a knob 4 constituting a permanent head, and at the other end a detachable head 5 having threaded connection with a stem 3. A foot piece 6 is provided at its side edges with downward extending apertured lugs or ears 7 engaging the stem 3 upon which the foot piece is pivotally supported. The foot piece 6 is provided at its front edge with an upstanding flange 8 constituting a toe guard; and the base 1 is provided below the front end of the foot piece 6 with a post 9 in which a set screw 10 is vertically adjustable; said screw being provided with a flat head 11 which constitutes a stop to limit the downward movement of the front end of the foot piece, the stroke or extension of movement of which may thus be accurately regulated.

12 designates a clasp consisting preferably of a flat narrow strip of sheet metal or other suitable material, doubled upon the shift key or lever 13 that is to be operated; the ends of said strip being provided with alining perforations 14 for the reception of a hook 15 formed upon one end of the link or connecting rod of the device; the ends of the strip forming the clasp 12 may also be connected by means of a loop 16. The link or connecting member L is composed of two sections or rods 17 and 18, each provided with a terminal eye 19—20 encircling the other; said rods being thus slidably and extensibly connected with each other. The upper rod 17 is provided at its outer extremity with the hook 15 engaging the clasp 12, and said upper rod is provided with a plurality of hook-shaped offsets 21, any one of which may be engaged by the eye 20 which is formed at the upper end of the lower rod 18; the latter is also provided, at its lower extremity with a hook 22 engaging an eye 23 attached to the flange or toe guard 8 of the pivotally supported foot piece 6.

The operation and advantages of this invention will be readily understood from the foregoing description when taken in connection with the drawings. The clasp or connecting member 12 is applied to the shift

key or lever that is to be operated, and the base carrying the pivoted foot piece is placed in convenient position upon the floor; it being understood that said base and related parts may be made of any suitable dimensions and of a weight which will insure its remaining safely in the position where it is placed, although, within the scope of the invention, special means may be provided for the purpose of securing the base against accidental displacement. The link or connecting rod L is now applied; the component members of said link being readily adjustable to the requisite length. The set screw 10 is finally adjusted to gage the stroke of the foot piece which may in this manner be very accurately adjusted, so as to avoid all possibility of unusual or improper strain upon the key or lever that is to be operated by the treadle. The treadle is actuated by the foot of the operator whenever the lever or shift key 13 is to be operated, and the hands of the operator will thus be relieved from the strain incident to the use of said key or lever, and may be reserved for other work.

While the present invention is applicable to various uses, it is particularly designed for operating the shift keys of typewriting machines; and it is found that by the use thereof the speed may be materially increased, especially in tabulated and other work calling for frequent use of the shift keys, while much of the strain upon the hands of the operator is avoided.

Having thus fully described the invention, what is claimed as new is:—

1. In a device of the class described, a base, a pivotally supported foot piece having a toe guard, a lever engaging clasp, and an extensible link or connecting member comprising two rods connected respectively with the clasp and with the toe guard and each

having an eye encircling the other, and one of said rods being provided with a plurality of hook-shaped offsets.

2. In a device of the class described, a lever engaging clasp consisting of a flat narrow strip doubled upon itself and having alining apertures, and a loop engaging the contacting ends of the strip, in combination with a treadle comprising a base and a foot piece pivotally supported thereon, means for limiting and regulating the stroke of the foot piece, and a link or connecting member comprising hooked rods connected respectively with the foot piece and with the lever engaging clasp, and each provided with a terminal eye embracing the other; one of said rods being provided with a plurality of hook-shaped offsets adapted for engagement with the terminal eye of the other rod.

3. In a device of the class described, a treadle, a lever engaging device, a longitudinally extensible connection between the treadle and the lever engaging device, and means for adjusting the active throw of the treadle.

4. In a device of the class described, a treadle, a lever engaging device, a longitudinally extensible connection between said device and the treadle comprising overlapping relatively adjustable sections one of which embodies an eye and the other a series of shoulders for engagement with said eye, and means for adjusting the active throw of the treadle.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES E. LOVETT.
MARION E. COE.

Witnesses:

J. L. DRENNEN,
J. F. STALLINGS.