

(No Model.)

E. L. BLAKESLEE.
BELT SHIFTER AND HOLDER.

No. 303,977.

Patented Aug. 26, 1884.

Fig. 1.

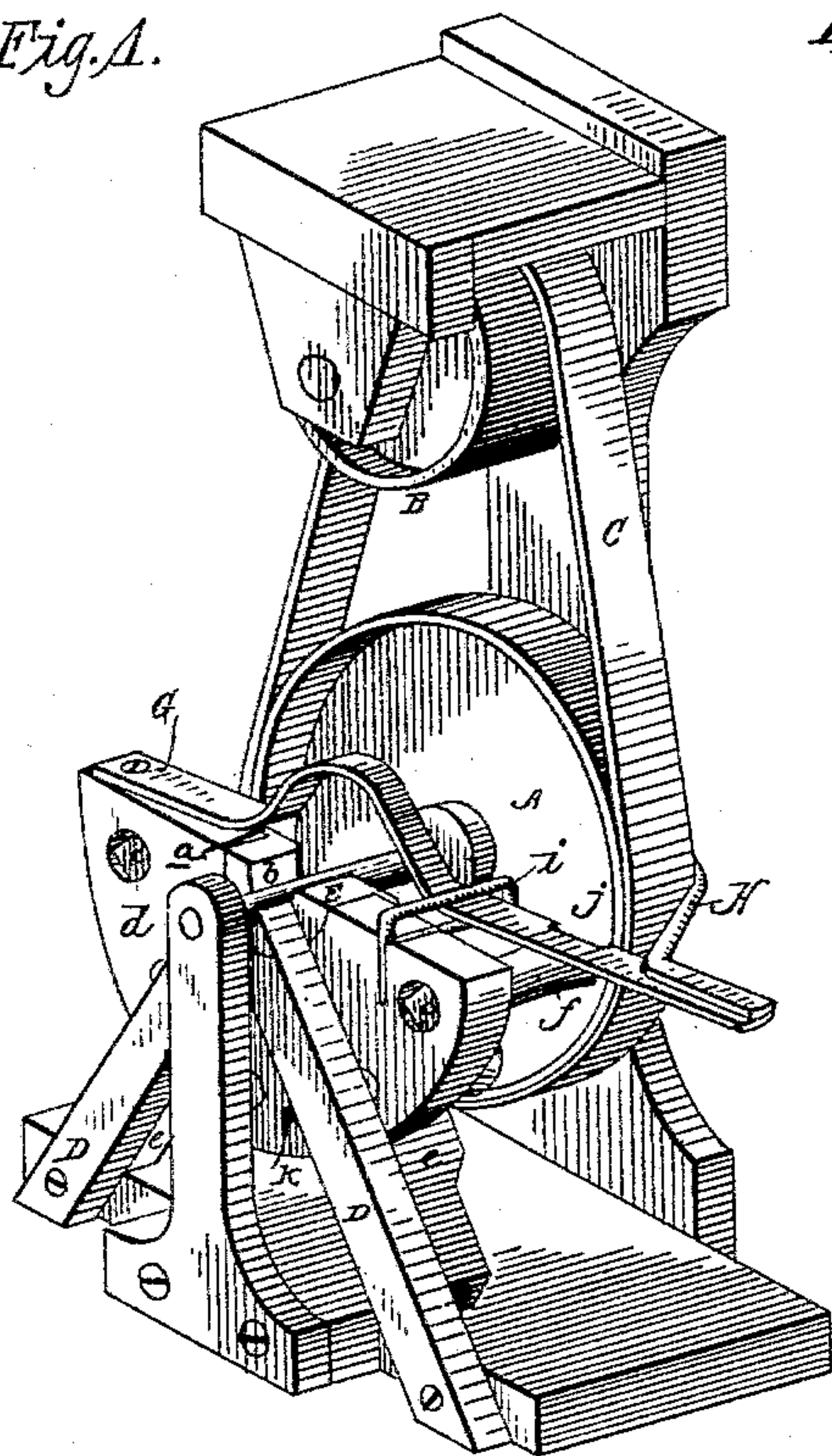


Fig. 2.

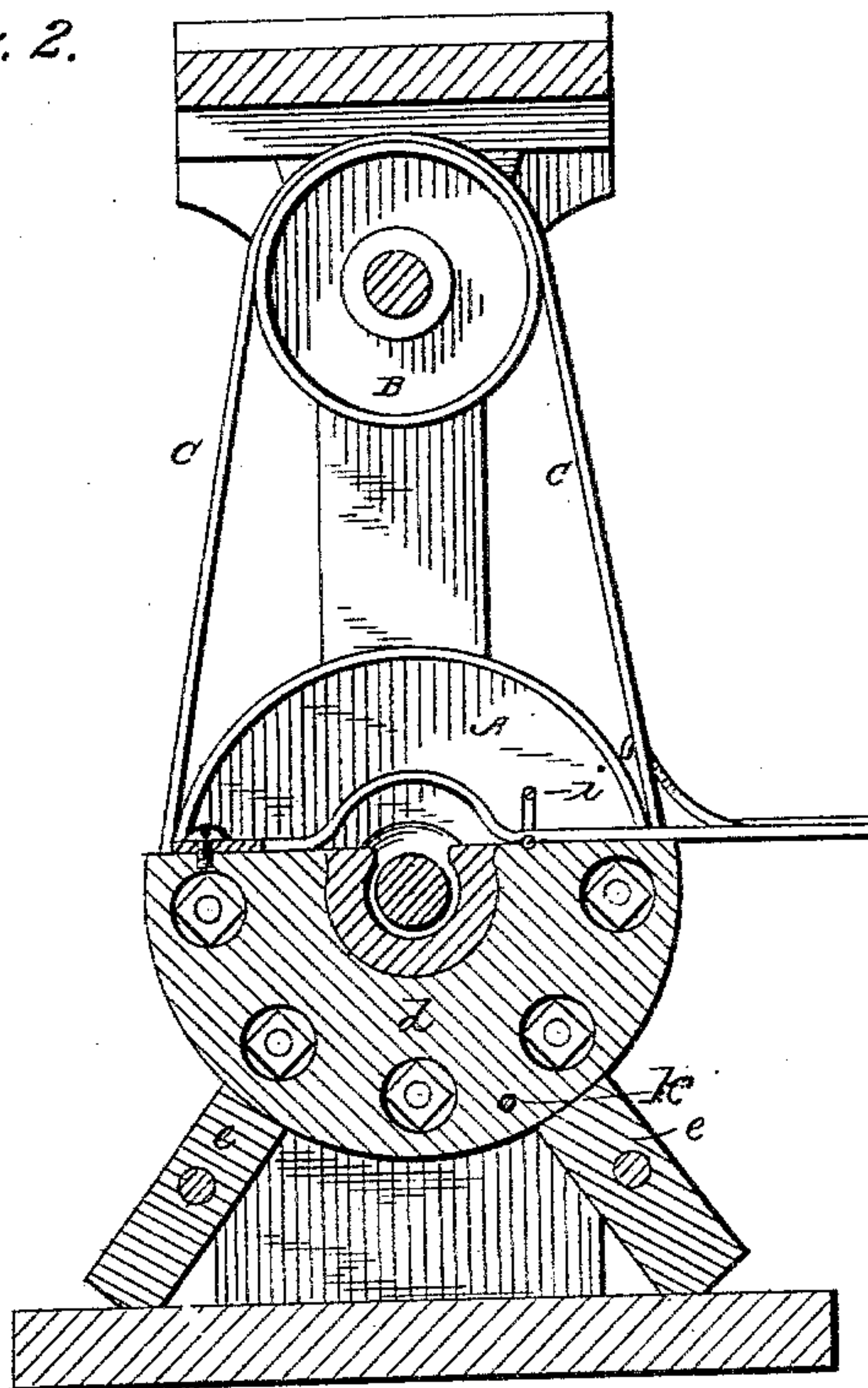


Fig. 3.

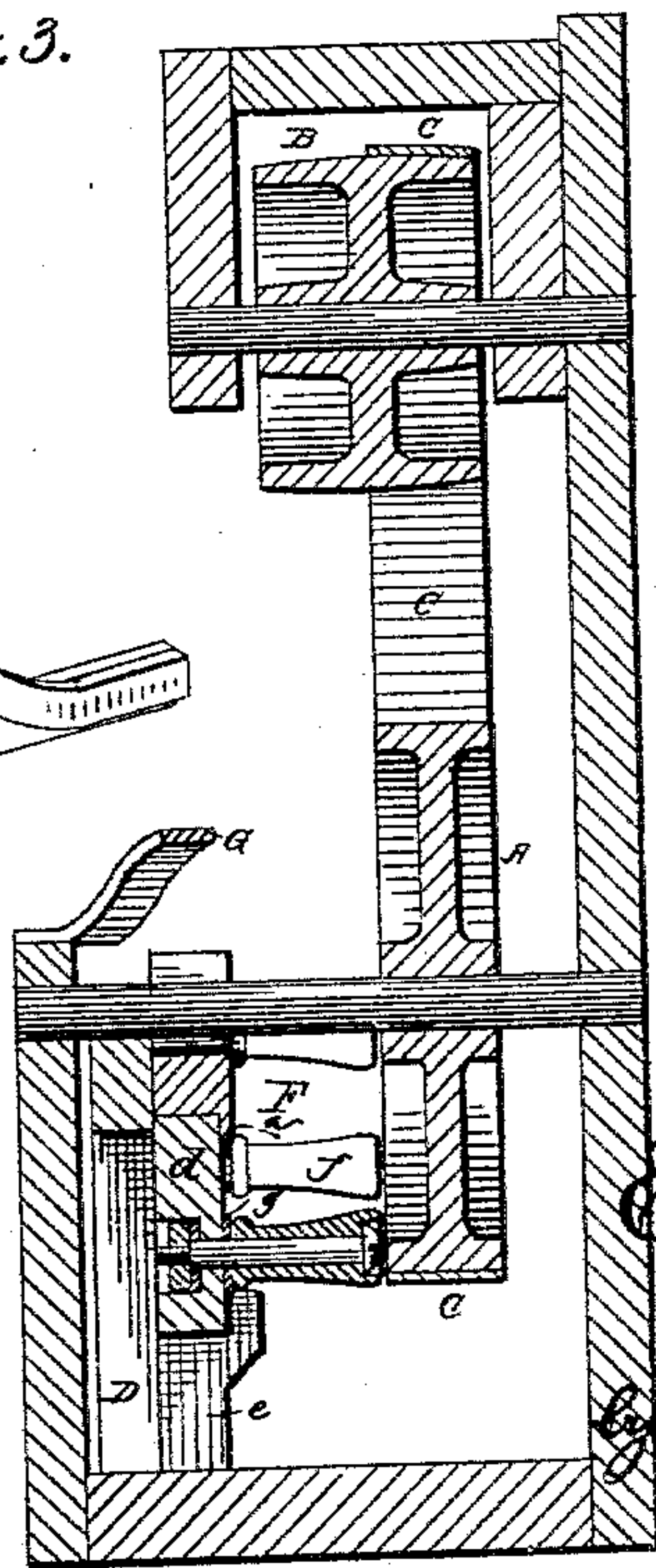
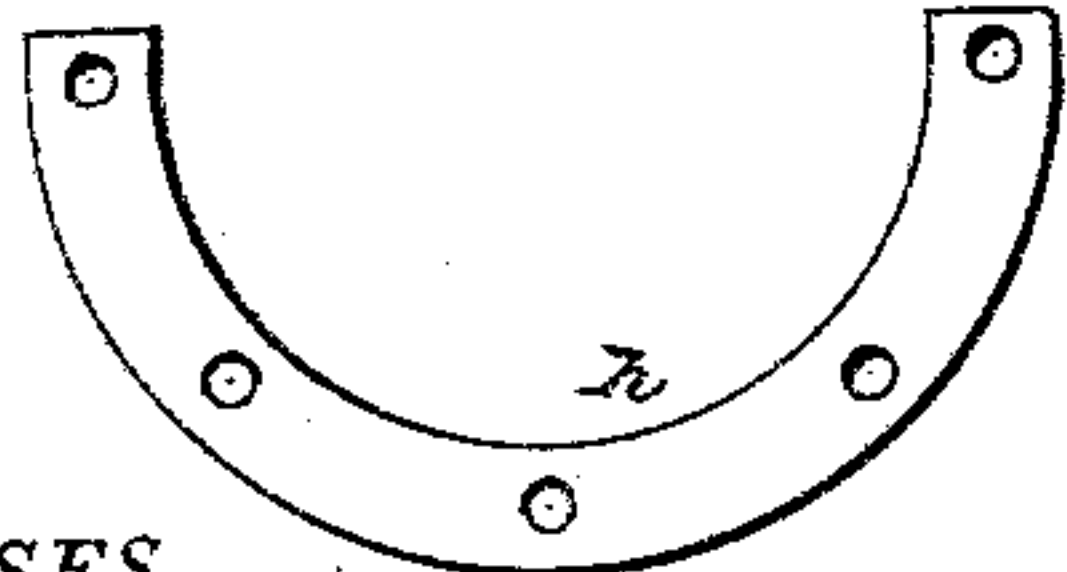
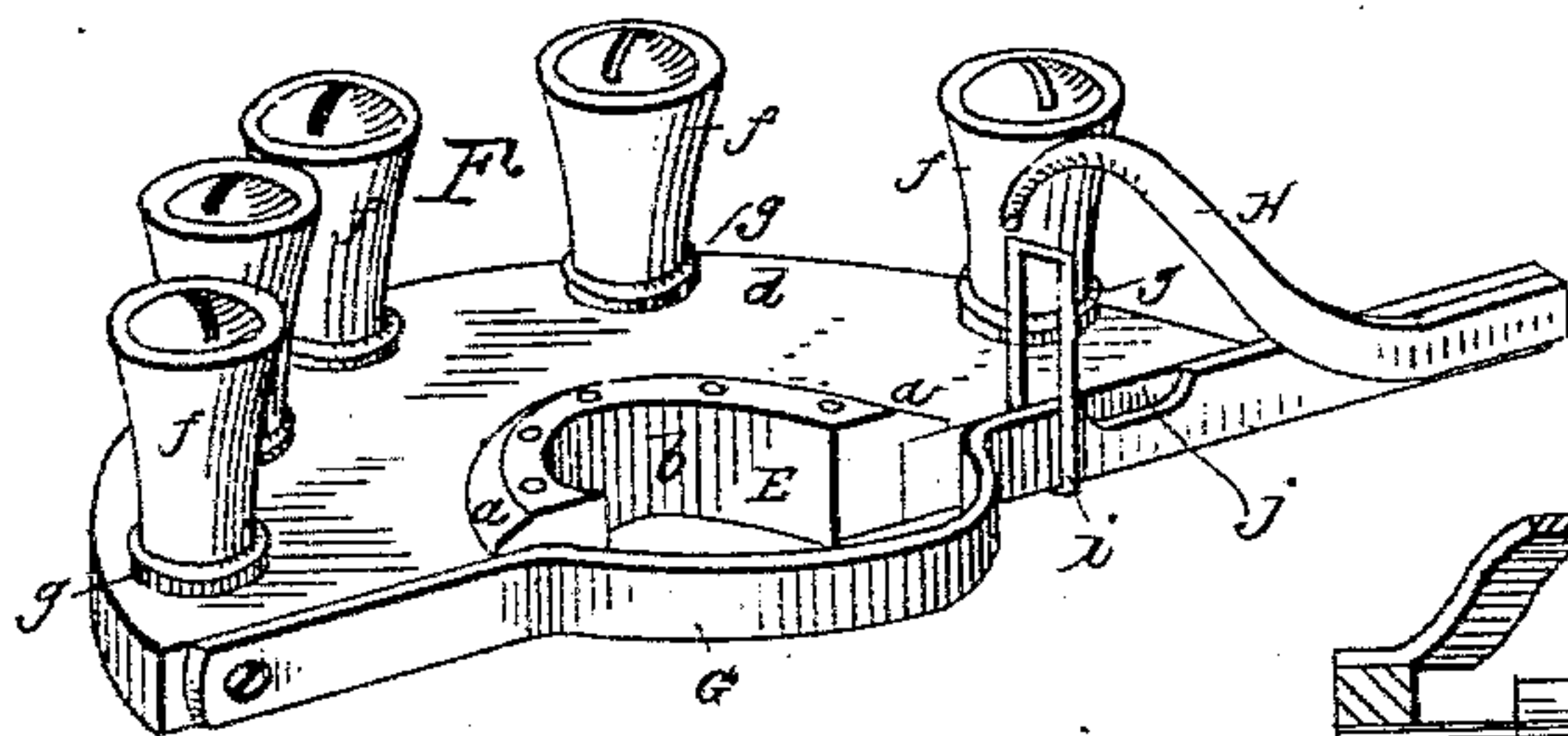


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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BELT SHIFTER AND HOLDER:

SPECIFICATION forming part of Letters Patent No. 303,977, dated August 26, 1884.

Application filed June 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, EVERETT L. BLAKESLEE, a citizen of the United States, residing at Hicksville, in the county of Defiance and State of Ohio, have invented new and useful Belt Shifters and Holders, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to a combined belt-shifter and support for the belt when not in use, the object being to provide devices for this purpose whereby the belt may be detached from the driving-wheel or connected therewith instantly.

A further object of the invention provides improved means for facilitating the passage or transferring of the belt from its support to the drive pulley or wheel; and a still further object of the invention provides an improved shifting-lever.

With these ends in view the invention consists, primarily, in the combination, with a suitable support, of a movable belt-holder carrying rollers.

The invention further consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view showing my improvements applied. Fig. 2 is a cross-section taken through the belt-holder, showing the means for supporting the same. Fig. 3 is a transverse section of the belt-holder, showing one of the rollers; and Fig. 4 is a perspective view of the movable belt-holder detached.

In the accompanying drawings, in which like letters refer to corresponding parts in the several figures, A represents the band-wheel, B the pulley; and C the belt connecting the two, said band-wheel and pulley being suitably mounted, as shown.

D represents two converging uprights or standards connected at their upper ends and on the inner sides at such point by means of a semicircular block, E, which is provided with an annular flange, *a*, and is recessed, as shown at *b*, to form a passage for the shaft of the drive-wheel B. If desired, however, the uprights D and semicircular block E could be constructed of one piece.

F represents the belt-holder, which consists of a semicircular strip, *d*, recessed to fit upon the block E, and held in place against lateral movement on one side by the annular flange of said block and on the other side by means of the supporting-standards. The strip *d* is supported or held against downward movement by two blocks, *e*, which may be formed integral with the supporting-standards or secured thereto in any suitable manner. These blocks are each provided with an annular flange, and are recessed or cut away to form a circular bearing portion for the said strip *d*. Upon the inner face of the strip *d*, and near the peripheral edge thereof, are mounted, upon bolts, rollers *f*, between the inner ends of which and the strip *d* are interposed washers *g*, to allow of the easy turning of said rollers, which are held from detachment by the headed outer ends of the bolts, which fit enlarged openings in the ends of said rollers. In some cases it may be desirable to support or brace the bolts upon which the rollers are mounted. For this purpose I have provided a metal strip, *h*, having a series of openings or perforations. This metal strip or plate is adapted to be inserted upon the bolts and connect the same, thus serving as an effective brace. It may also be desirable to use rollers in lieu of the blocks *e*, as the friction will be lessened thereby; hence the belt-holder may be more readily turned upon the block E, as will be further described.

G represents the shifting-lever, which is pivoted at its rear end to the strip *d*, said lever extending a short distance beyond the opposite end of the strip *d*. The movement of this lever in a lateral direction is limited by a bracket, *i*, which is also secured to the strip *d*. Upon the forward end of the lever is provided an arm, H, which is bent to form a hooked end to catch the belt and retain the same. The lever G is also provided with a recess, *j*, which forms a seat for the edge of the belt when the same is to be shifted from the holder to the band-wheel.

Upon the lower outer edge of the strip *d* is provided an outwardly-projecting pin, *k*, which, when the said strip is in its normal position, as shown in Fig. 1, rests or bears against the inner side of the supporting-stand-

ard nearest the outer or free end of the shifting-lever. It will thus be seen that the said strip may be lowered a distance equal to the distance the supporting-standards are apart at the point where the pin is located, the downward movement of said strip farther than the farther standard being prevented by the pin striking the same, the upward movement of the said strip, when in its normal position, being prevented by the pin striking the inner side of the nearest standard.

The operation is as follows: The parts being in the position shown in Fig. 1, the strip *d* is first lowered as far as is permitted by the pin *k*. The shifting-lever is then pushed over upon the belt, so that the hooked end rests upon the same. The strip *d* is then raised by the shifting-lever, which action causes the hooked end of the shifting-lever to engage the farther side of the belt. The lever is then drawn toward the operator, which causes the belt to run off on the rollers, the band-wheel turning loosely by itself. To adjust the belt upon the band-wheel the lever is pushed toward the same, the edge of the belt resting in the recess on the lever, and as soon as the belt touches the band-wheel motion will be imparted to the belt, and as the rollers are larger at their front ends the belt will be immediately transferred to the band-wheel.

The advantages of my improvement will be apparent. It obviates the use of a loose pulley, and as the belt stands still when not on the band-wheel all liability of persons to be caught by the belt is prevented. By the use of the movable holder the belt is readily and easily shifted to the band-wheel.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with suitable supporting-standards having a semicircular block, of a belt-holder provided with a series of rollers, substantially as set forth.

2. The combination, with suitable supporting-standards having a semicircular block provided with an annular flange, of a belt-holder carrying rollers, substantially as set forth.

3. The combination, with suitable supporting-standards having a semicircular block, of a belt-holder carrying a series of rollers located near the peripheral edge thereof, and blocks or rollers supporting said holder at its lower end, substantially as set forth.

4. The combination, with suitable supporting-standards having a semicircular block provided with an annular flange, of a belt-holder carrying rollers and a block or blocks located beneath said holder, said block or blocks being provided with a flange, substantially as set forth.

5. The herein-described belt-holder, consisting of supporting-standards carrying a semicircular block having an annular flange, and a strip, *d*, adapted to turn thereon and supported by blocks or rollers, said strip *d* carrying rollers, substantially as set forth.

6. The combination, with the belt-holder adapted to turn, as described, of a stop for limiting the movement of said holder, substantially as set forth.

7. The combination, with a movable belt-holder, of a shifting-lever having an inwardly-extending arm having a hooked end, substantially as set forth.

8. The combination, with a movable belt-holder, of a shifting-lever pivoted thereto, said lever having an inwardly-extending arm provided with a hooked end and a bracket, substantially as set forth.

9. The combination, with a movable belt-holder, of a shifting-lever for removing the belt and operating said belt-holder, substantially as described, and for the purpose set forth.

10. The combination, with a belt-holder having a series of rollers, of a brace connecting said rollers, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

EVERETT L. BLAKESLEE.

Witnesses:

JAMES E. COULLIN,
JOHN BLAKESLEE.