

P. A. KELLER.
SHOE GAGE FOR PLANTERS.
APPLICATION FILED APR. 13, 1909.

929,447.

Patented July 27, 1909.
2 SHEETS—SHEET 1.

Fig. 1.

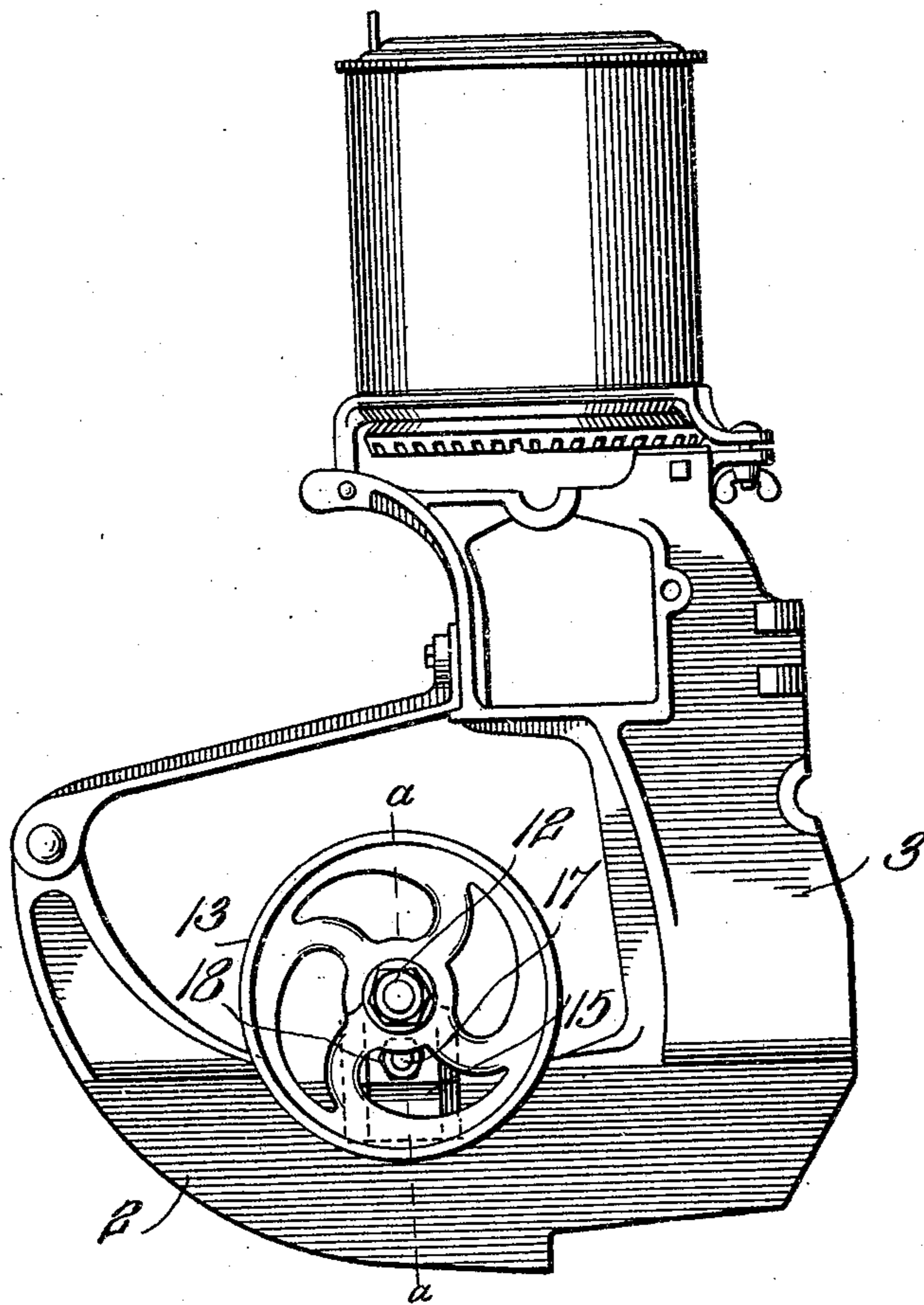
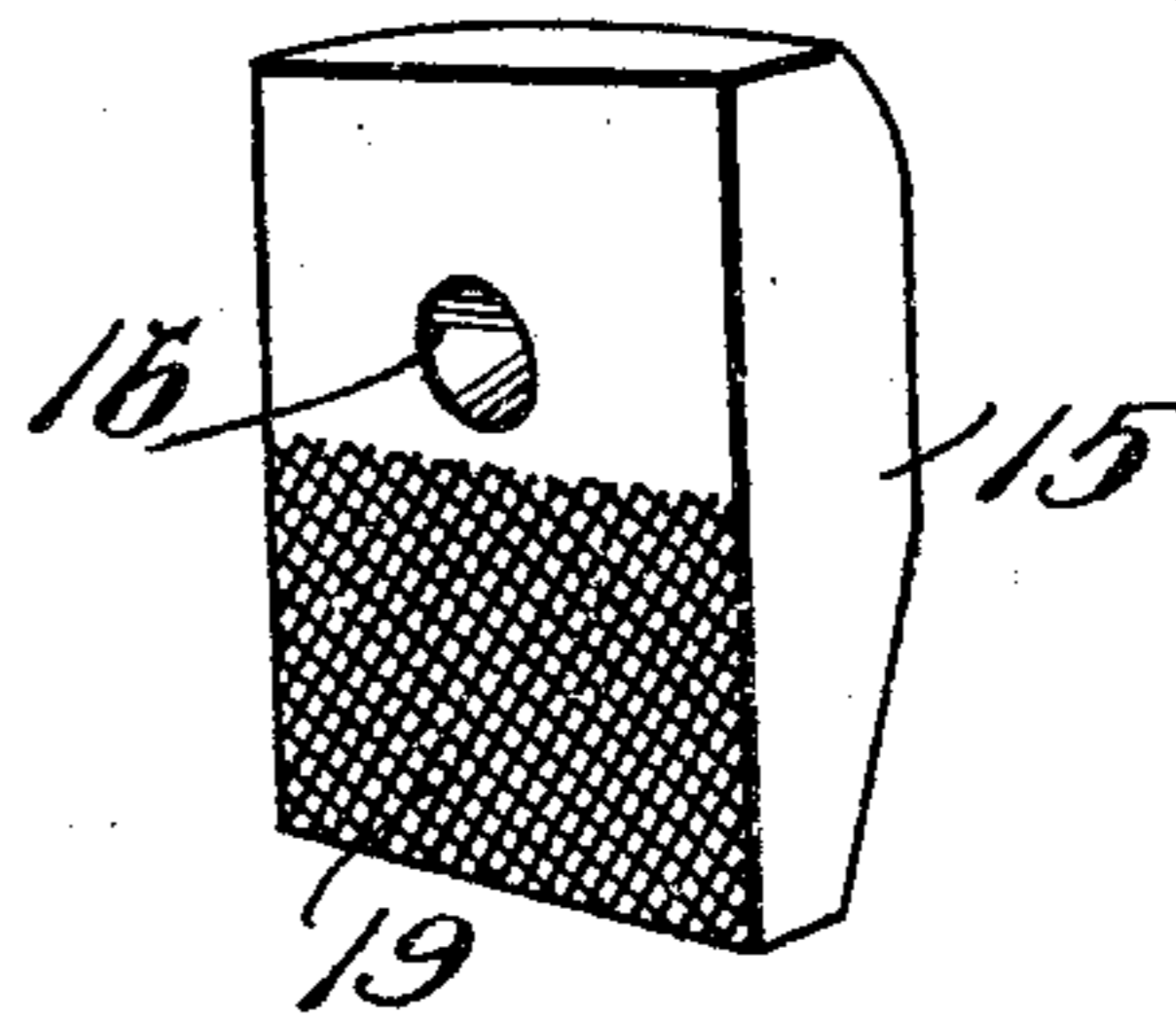


Fig. 4.



Inventor

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Witnesses

Frank Hough
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By *Victor J. Evans*

Attorney

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2 SHEETS—SHEET 2.

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Fig. 2.

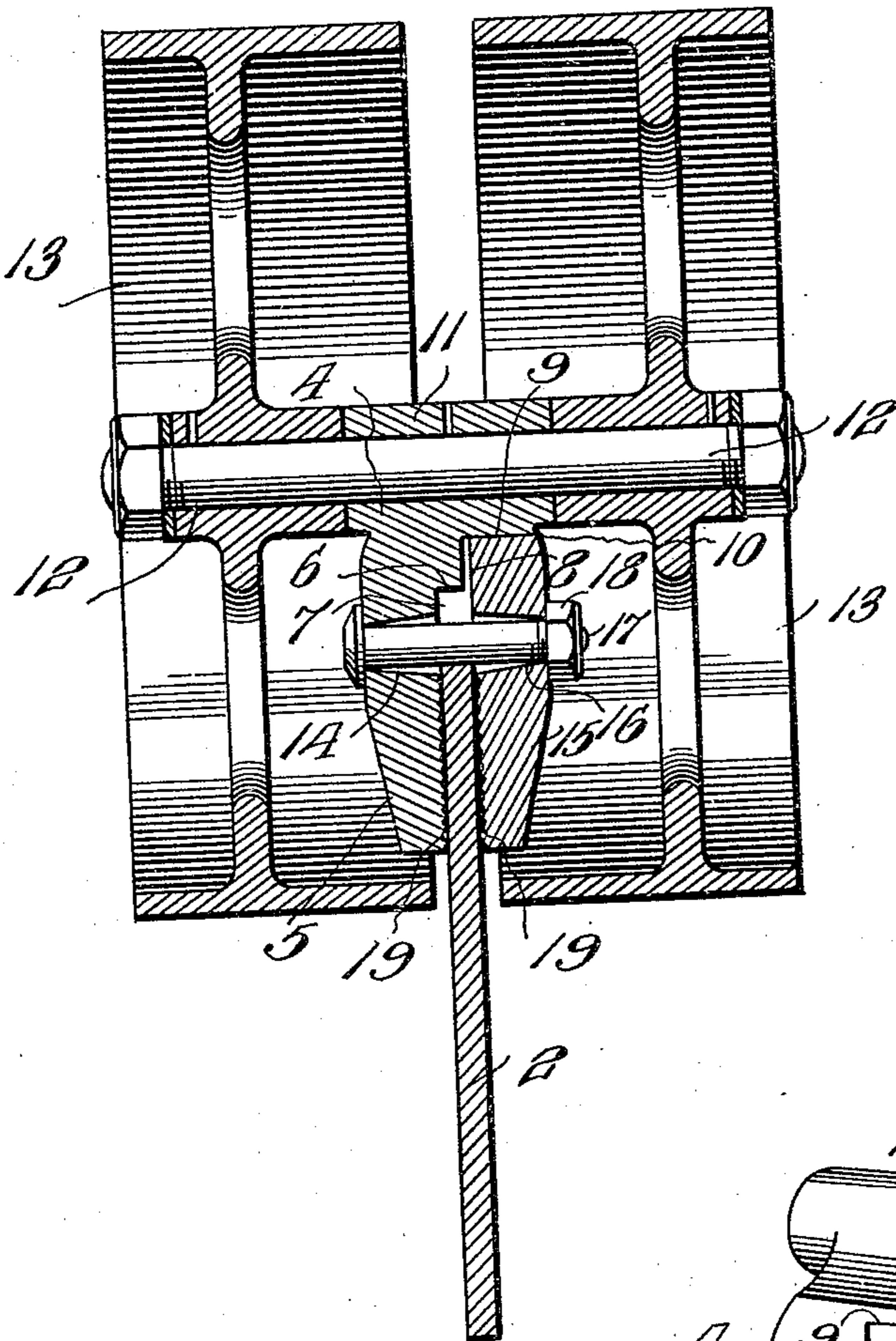
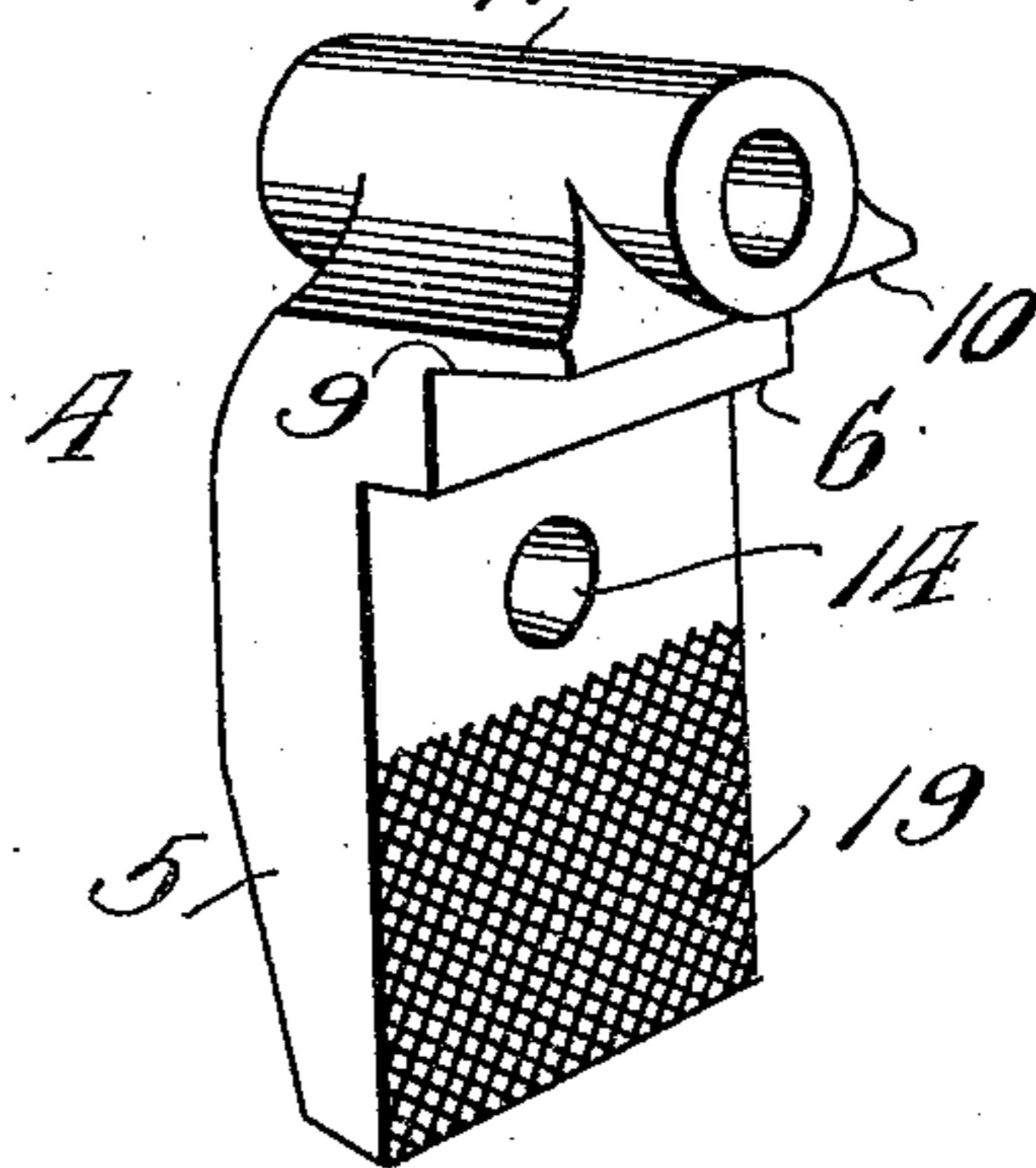


Fig. 3.



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UNITED STATES PATENT OFFICE.

PAUL A. KELLER, OF WATERLOO, IOWA.

SHOE-GAGE FOR PLANTERS.

No. 929,447.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed April 13, 1909. Serial No. 489,615.

To all whom it may concern:

Be it known that I, PAUL A. KELLER, a citizen of the United States, residing at Waterloo, in the county of Blackhawk and State of Iowa, have invented new and useful Improvements in Shoe-Gages for Planters, of which the following is a specification.

This invention relates to improvements in corn and other planters, particularly with reference to a gage for application to the shoe or runner of a planter to regulate the depth at which said shoe or runner shall operate in the soil and thereby cause the seed to be planted at the correct depth to insure germination and proper rooting and with this end in view, the said invention consists of the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a side elevation of my improved gage, showing the same applied to the runner of a corn planter. Fig. 2 is a vertical sectional view of the same, on the plane indicated by the line *a—a* of Fig. 1. Fig. 3 is a detail perspective view, showing the inner side of the block which is provided with a fixed clamping jaw. Fig. 4 is a similar view, showing the inner side of the detachable clamping jaw.

For the purposes of this specification, the shoe or runner of a corn planter of usual type is shown at 2 in Figs. 1 and 2 and the seed spout at 3.

It is the object of my invention to provide an improved gage mechanism for use on the shoe to regulate the depth at which the shoe shall run in the soil and hence to cause all the seed to be planted at a proper uniform depth in the soil.

In the making of my improved shoe gage, I provide a block 4 which has its lower portion formed into a jaw 5 to bear against one side of the shoe. On the inner face of said jaw, near the upper end thereof is a fulcrum shoulder 6 which presents a horizontal lower face 7 to extend above the upper edge of the shoe and a vertical face 8, the said shoulder 6 overhanging and extending laterally from the inner face of the said jaw and being substantially of a width corresponding to the thickness of the shoe or runner. The said block is provided further near its upper end with a bearing shoulder 9 which presents a horizontal face 10 that extends laterally from and overhangs the ver-

tical face 8 of the fulcrum shoulder 6. At the upper end of the said block is a head 11 which extends above the shoe and is provided with an axle 12 disposed transversely with reference to and above the shoe, the ends of the axle projecting beyond opposite sides of the head to receive gage wheels 13 which bear on the ground on opposite sides of the shoe, prevent the latter from running too deeply in the soil, hence cause the seeds to be planted at a required predetermined uniform depth in the soil and furthermore serve to crush clods, compress or "firm" the soil above the seed and also serve to relieve neck stress on the draft animals by partially supporting the front end of the planter. The said jaw 5 has a transverse bolt hole 14 at a slight distance below the fulcrum shoulder 6 which bolt hole tapers from its inner side toward its outer side.

In connection with the block 4 and its fixed jaw 5, I provide a detachable jaw 15 which is adapted to bear on the side of the shoe opposite that which is engaged by the jaw 5 and the upper end of which bears directly under the bearing shoulder 9 of the block 4, the upper portion of the inner face of the said detachable jaw bearing against the vertical face 8 of said fulcrum shoulder 6. The said detachable jaw 15 also has a bolt hole 16 which is identical with the bolt hole 14 of the fixed jaw 5 and a bolt 17 is employed which passes through the bolt holes in the jaws and clamps the jaws firmly on opposite sides of the shoe at any desired adjustment of the block so that the gage shoe may be set to cause the gage wheel to run at any desired adjustment, so as to regulate the depth at which the seeds are planted in the soil. It will be understood from the foregoing description and particularly upon reference to Figs. 2 and 3 of the drawings that owing to the provision of the fulcrum shoulder against which the upper portion of the detachable jaw bears, the clamping bolt is enabled to clamp the jaws so firmly on the shoe that there is no likelihood of the gage becoming casually displaced. The nut of the clamping bolt is shown at 18. The opposing inner faces of the jaws are serrated or roughened as at 19 to increase the frictional grip of the jaws on the sides of the shoe.

What is claimed is:—

1. In combination with a shoe of a planter, a block having a fixed jaw and a detachable

jaw bearing against opposite sides of the shoe, said block extending above the shoe, gage devices carried by the said block and means to clamp the said jaws on opposite sides of the shoe.

2. In combination with a shoe of a planter, a block having a fixed jaw disposed on one side of said shoe, said block having a head extending above the shoe, gage devices carried by the said head and disposed on opposite sides of the shoe, a detachable jaw disposed on the side of the shoe opposite that against which the fixed jaw bears, and means to clamp said jaws on opposite sides of said shoe and permit the vertical adjustment of said block and gage devices.

3. A shoe gage for corn planters comprising a block formed with an integral jaw to bear on one side of the shoe of a planter, a shoulder to extend above the upper edge of the shoe and a head to extend above the shoe, said head having an axle, a detachable jaw to bear under the shoulder of the block and against the opposite side of the shoe, means to clamp the said jaws to the shoe and

gage wheels mounted on said axle and disposed on opposite sides of the shoe.

4. A shoe gage for corn planters comprising a block having a fixed jaw to bear on one side of the shoe, a fulcrum shoulder on the inner face of the fixed jaw, to lie above the shoe, and a bearing shoulder extending laterally from and overhanging the fulcrum shoulder, and a head at the upper end of said block, said head having an axle, gage wheels on said axle, on opposite sides of said head, a detachable jaw to bear under the bearing shoulder and against the fulcrum shoulder and to also bear against the side of the said shoe opposite that against which the fixed jaw bears, and means to clamp said jaws together and against opposite sides of the shoe.

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

PAUL A. KELLER.

Witnesses:

R. M. BATES,
JOHN ALEXANDER.