

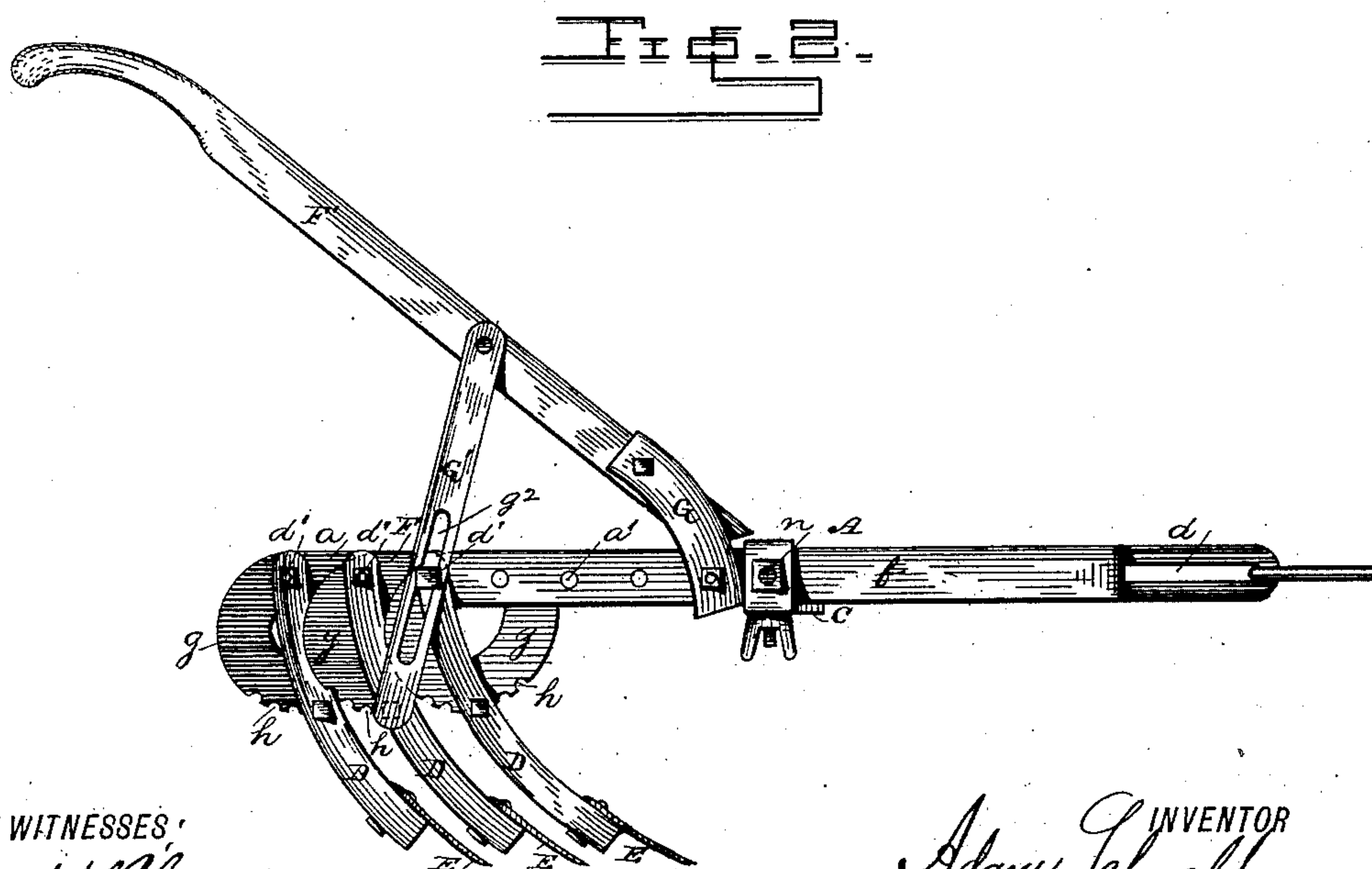
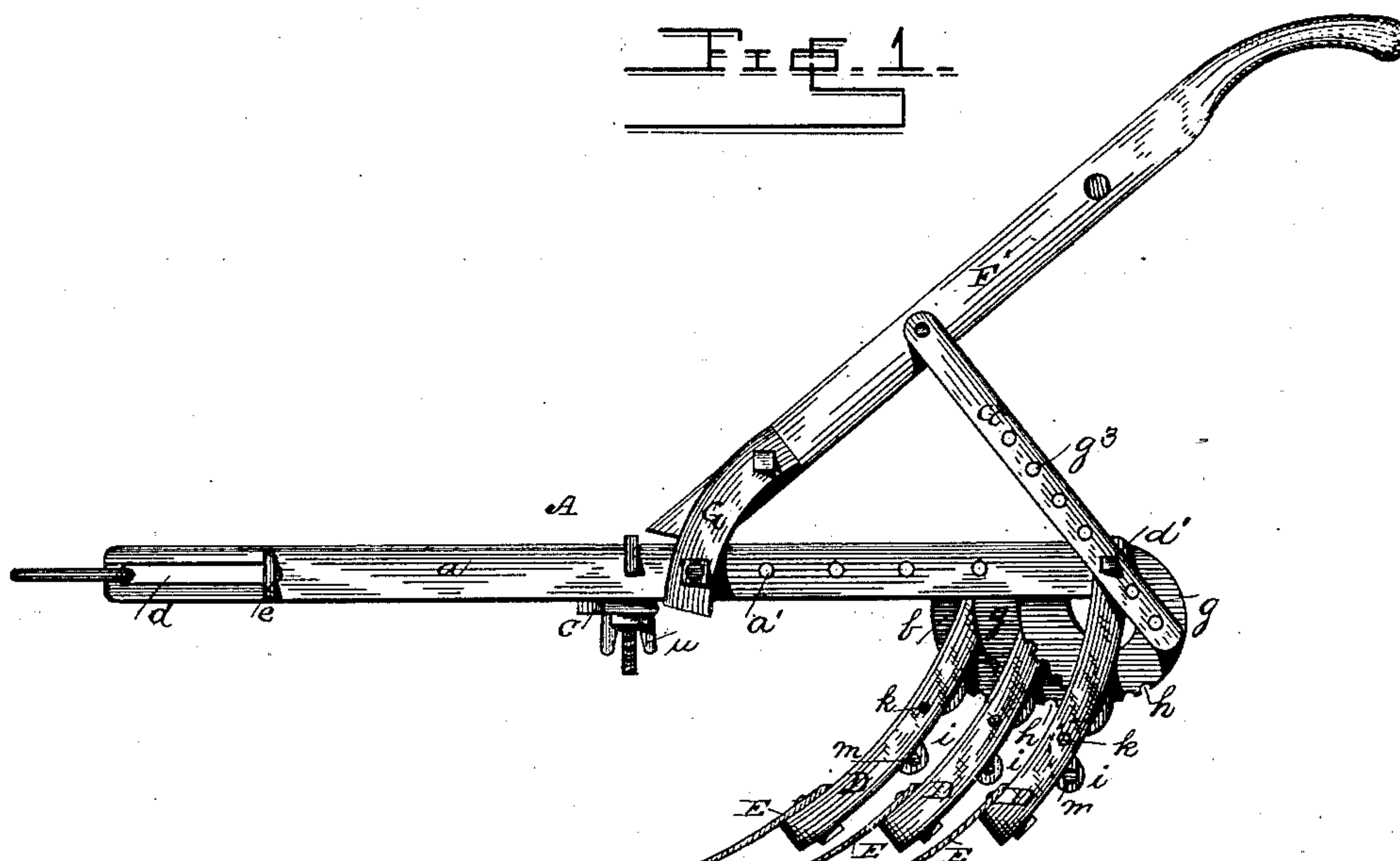
(No Model.)

2 Sheets—Sheet 1.

A. SCHNELL.
 PLOW AND CULTIVATOR.

No. 359,181.

Patented Mar. 8, 1887.



WITNESSES

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INVENTOR

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(No Model.)

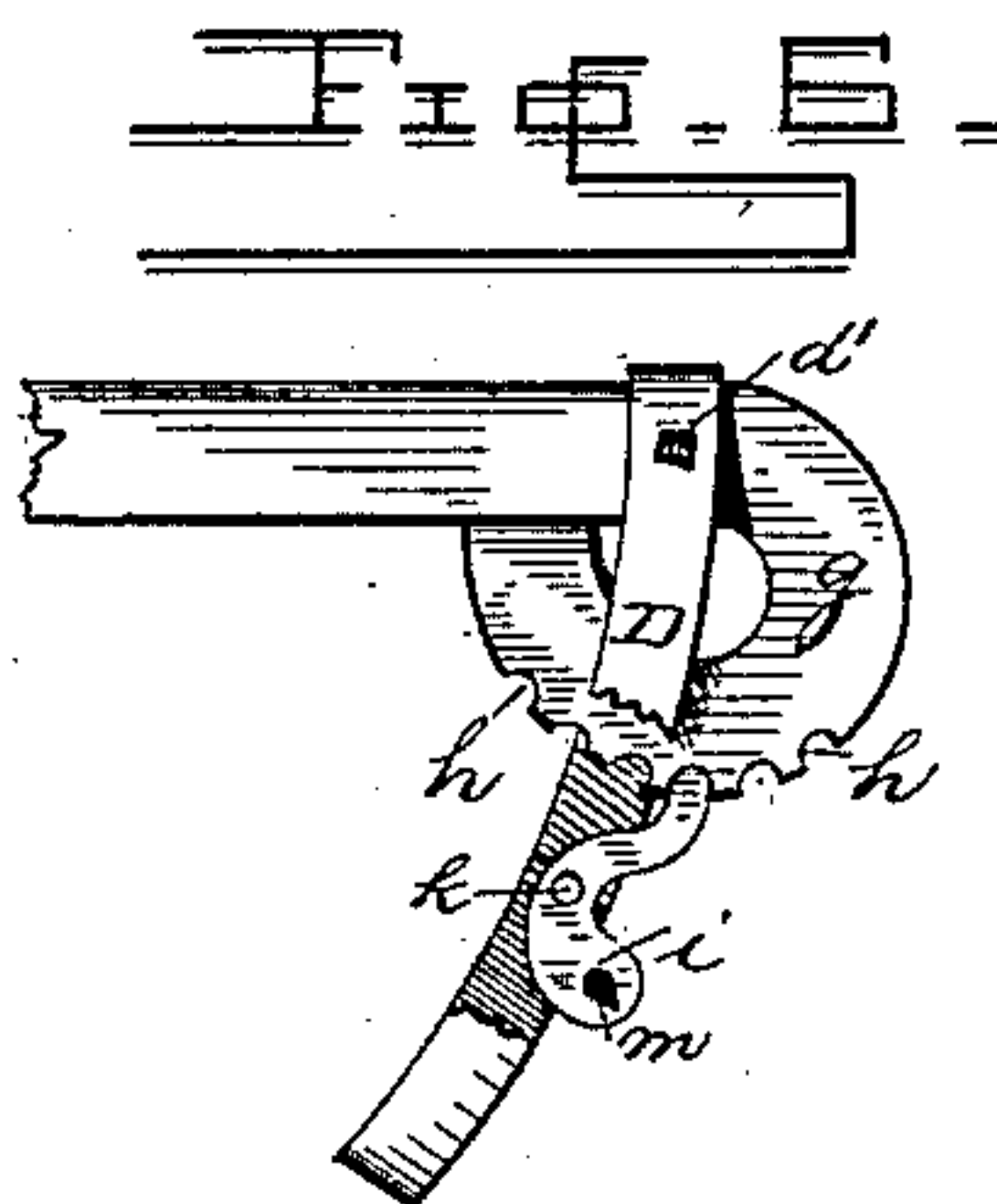
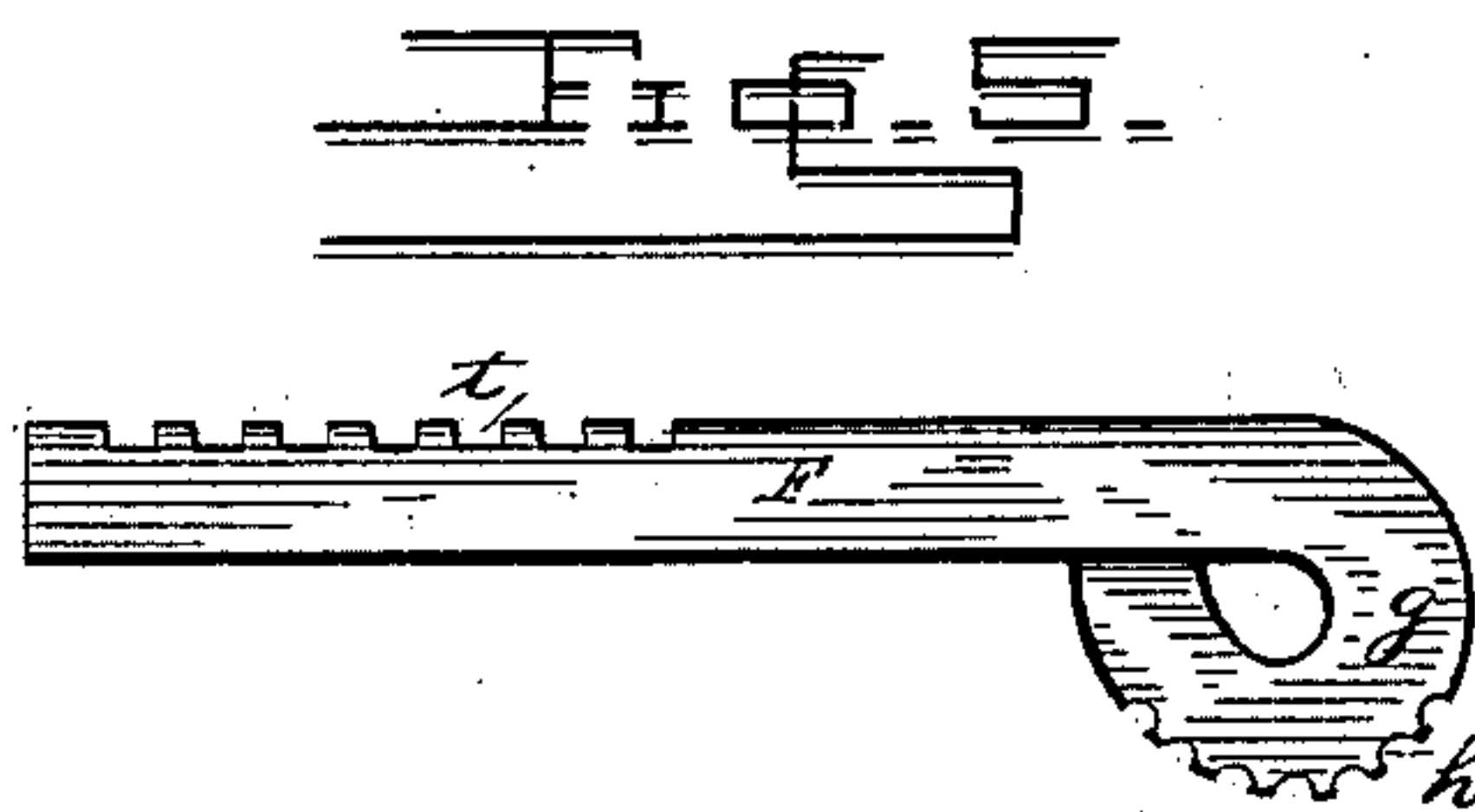
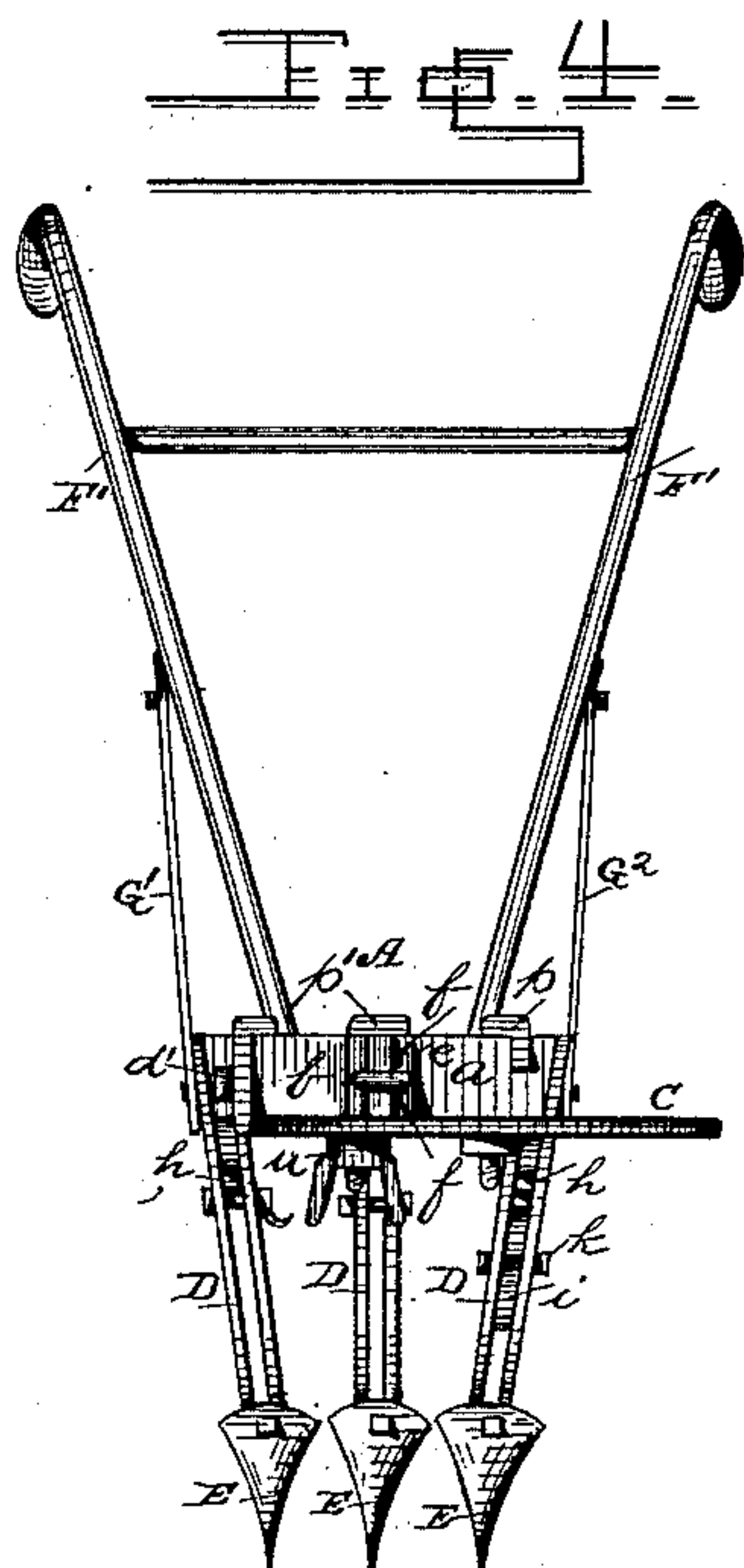
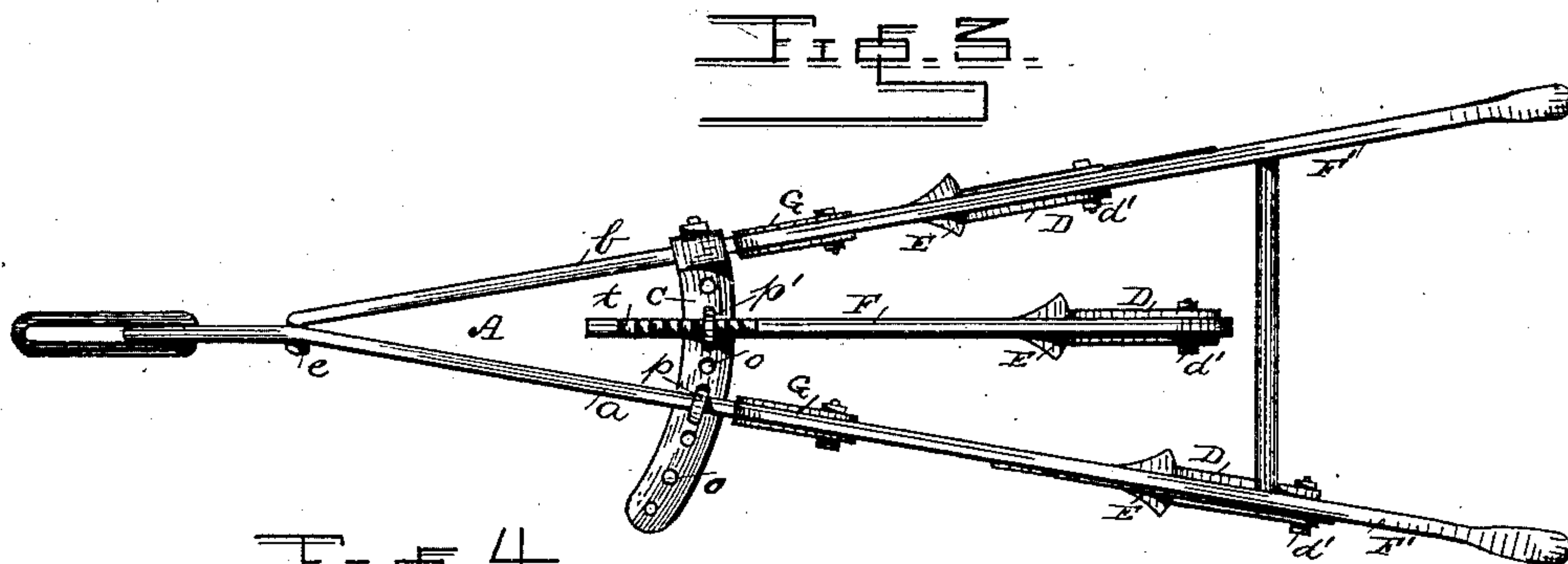
2. Sheets—Sheet 2.

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WITNESSES:

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UNITED STATES PATENT OFFICE.

ADAM SCHNELL, OF HARTSELL'S, ALABAMA.

PLOW AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 359,181, dated March 8, 1887.

Application filed September 20, 1886. Serial No. 214,054. (No model.)

To all whom it may concern:

Be it known that I, ADAM SCHNELL, a citizen of the United States, residing at Hartsell's, in the county of Morgan and State of Alabama, have invented certain new and useful Improvements in Plows and Cultivators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved plow and cultivator; and it consists of certain improvements in the construction thereof for the purpose of rendering the same more simple and efficient, as more fully hereinafter described and claimed.

It is illustrated in the accompanying drawings, in which Figure 1 is a side elevation; Fig. 2, a similar view of the opposite side; Fig. 3, a top plan view; Fig. 4, a front elevation, and Figs. 5 and 6 views in detail.

In the drawings, A is the frame, which is triangular in shape and is composed of two side beams, *a b*, and a curved cross-piece, *c*. The side beam, *a*, is made longer than the opposite side beam, *b*, and is provided at its front end with a longitudinal slot, *d*. In this slot is placed a T-head, *e*, on the opposite side beam, *b*, which head is formed by turning the end of side beam, *b*, at a right angle thereto, and cutting out portions to form cuts *f f*. By this means the beam *b* can be slid forward on beam *a*, so as to place the plows more or less at an angle to each other, or nearly abreast, or in advance of one another; and the beams *a b* can be taken apart by turning the beam *b*, so that the T-head can be withdrawn from the slot in beam *a*. The rear ends of the beams *a* and *b* are curved downward and upward, to form guide-plates *g*, and these plates are provided with notches *h*, forming a semicircular rack on their under edges, in which catches or pawls *i*, pivoted at *k* in the slotted stocks *D*, engage. The stocks *D* are placed over the guides *g*, and pivoted thereto at *d'*. The catches *i* have each a hole at one end, for the purpose of inserting a pin, *m*, to hold the stock rigidly in position, as shown in Fig. 1.

In place of the catches *i*, a screw bolt and nut may be used, as shown at the end of beam *a*, Fig. 2. By this arrangement, it will be seen, the stocks and the plows *E* on the ends of the

stocks can be adjusted and fixed at any angle. The curved notched plates can be formed in the upper sides of the beams, if desired, instead of beneath, and a ratchet-and-pawl arrangement be used in place of the catches. The curved center piece, *c*, is turned up at one end and bolted to the outer side of the side beam, *b*, by screw-bolt *n*, and is provided with holes *o*, for the purpose of receiving the screw-threaded straps *p p'*. The strap *p* is used to hold the side beam, *a*, at the desired position on the plate *c*. By removing the strap *p* the side beam, *a*, can be moved to the right or left, to increase or diminish the width of the cultivator.

F is a center beam, with its rear end curved into a raked plate, like the beams *a b*, and its front end provided with notches *t*, in which the strap *p'* rests, and in which the strap is held by a screw-bolt, *u*.

When it is desired to move the beam F backward or forward, the strap *p'* is unscrewed and the beam moved along, and the strap *p'* screwed down into the proper notch.

The central beam is also provided with a slotted adjustable stock, in the same manner and for the same purpose as the side beams. By the construction and arrangement of the central beam it can be removed altogether, if the use of a central plow is not desired, and when used it can be so arranged that the plow carried by it may be placed in advance or nearly abreast of the others.

F' are the plow-handles. They are connected to the side beams by means of the adjustable arms G and G'. The arms G embrace the side beams, and are adjusted thereon by means of screw-bolts, a series of holes, *a'*, being arranged on each beam for the reception of these bolts. The arm G' is slotted, as at *g'*, and the slot extends over the head of screw-bolt *d'*, which serves as a pivot on which the curved stock swings; or arms like G² may be employed, provided with holes *g'*, through which the pivot-screw *d'* is put.

The handles G of the machine are thus made adjustable on the beams, forward and back and up and down.

Thus it will be seen by the above description that the entire apparatus can be easily taken apart or narrowed, widened, lengthened, or shortened, and the plows adjusted at any

angle for striking the ground, and their relative position to each other, at any angle or nearly abreast, be changed and fixed, and a central plow or gang of plows be easily added
5 or detached.

The fact that the plow can be all taken apart adds greatly to the ease and convenience of shipment, and the readiness with which any part can be supplied by a new part when
10 broken.

Having thus described my invention, what I claim is—

1. The combination of adjustable side beams, *a b*, one longer than the other and slotted at
15 its end and the other provided with a T-head adapted to slide and be held in the slotted beam, and the curved center plate bolted to the short beam, provided with holes and connected to the side beams by clips, whereby
20 the side beams may be slid upon and adjusted to and from each other by disconnecting one end of the center plate, substantially as described.

2. The combination, with the adjustable side beams, *a b*, and the perforated curved
25 plate *c*, adjustably attached to said beams, of the center beam, *E*, notched at its forward end, and suitable mechanism for engaging with said notches and the perforations in the curved
30 plate, whereby beam *E* is rendered adjustable forward or backward and to or from the side beams, for the purposes set forth.

3. The adjustable side beams, each terminating in a curved notched plate, in combination with slotted stocks embracing and pivoted
35 to said plates, and catches secured to said stocks to engage with the notched plates, whereby the plows may be adjusted thereon, substantially as described.

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

ADAM SCHNELL.

Witnesses:

JOHN A. ROGERS,
CHARLES FRICKE.