

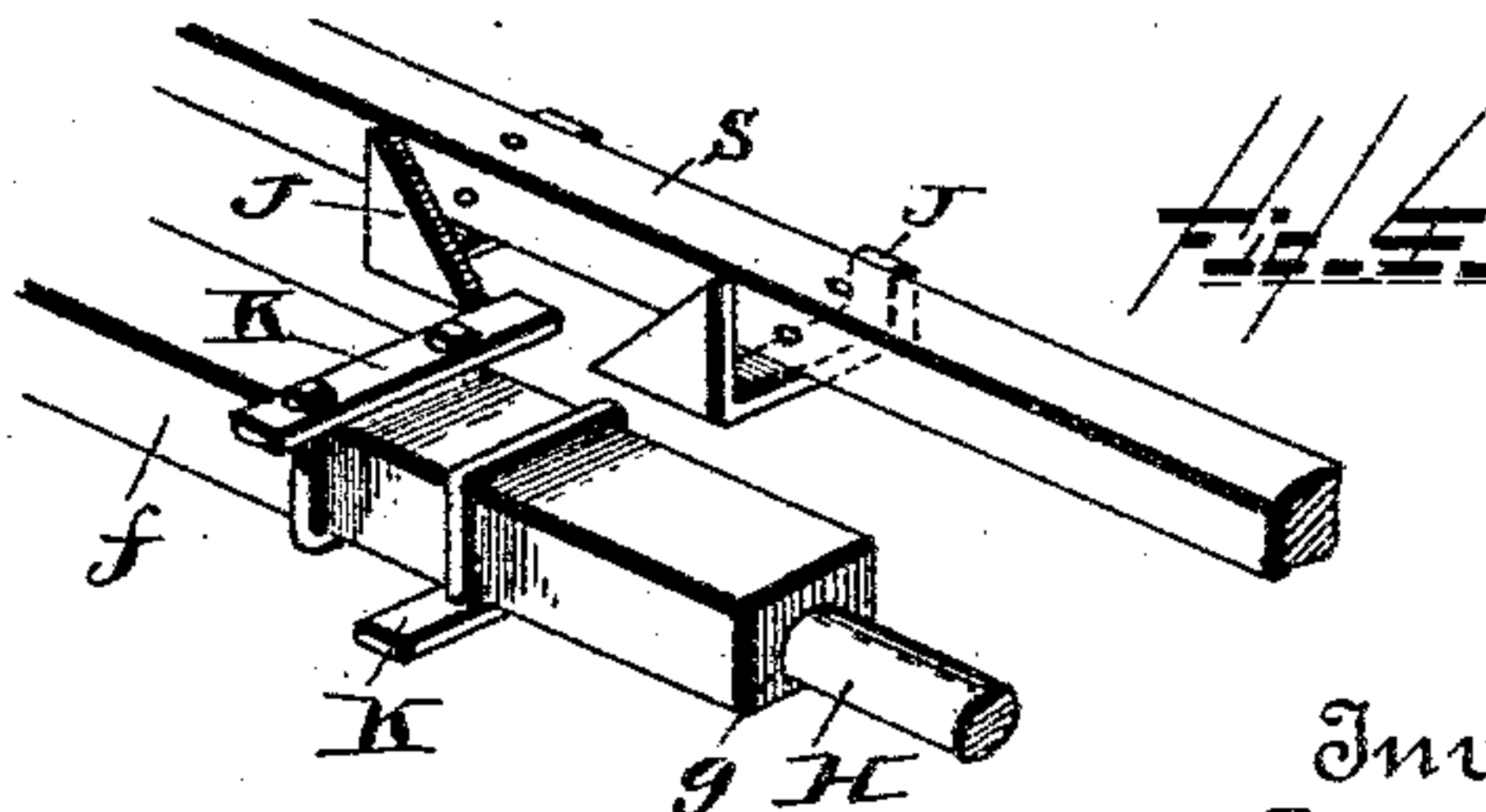
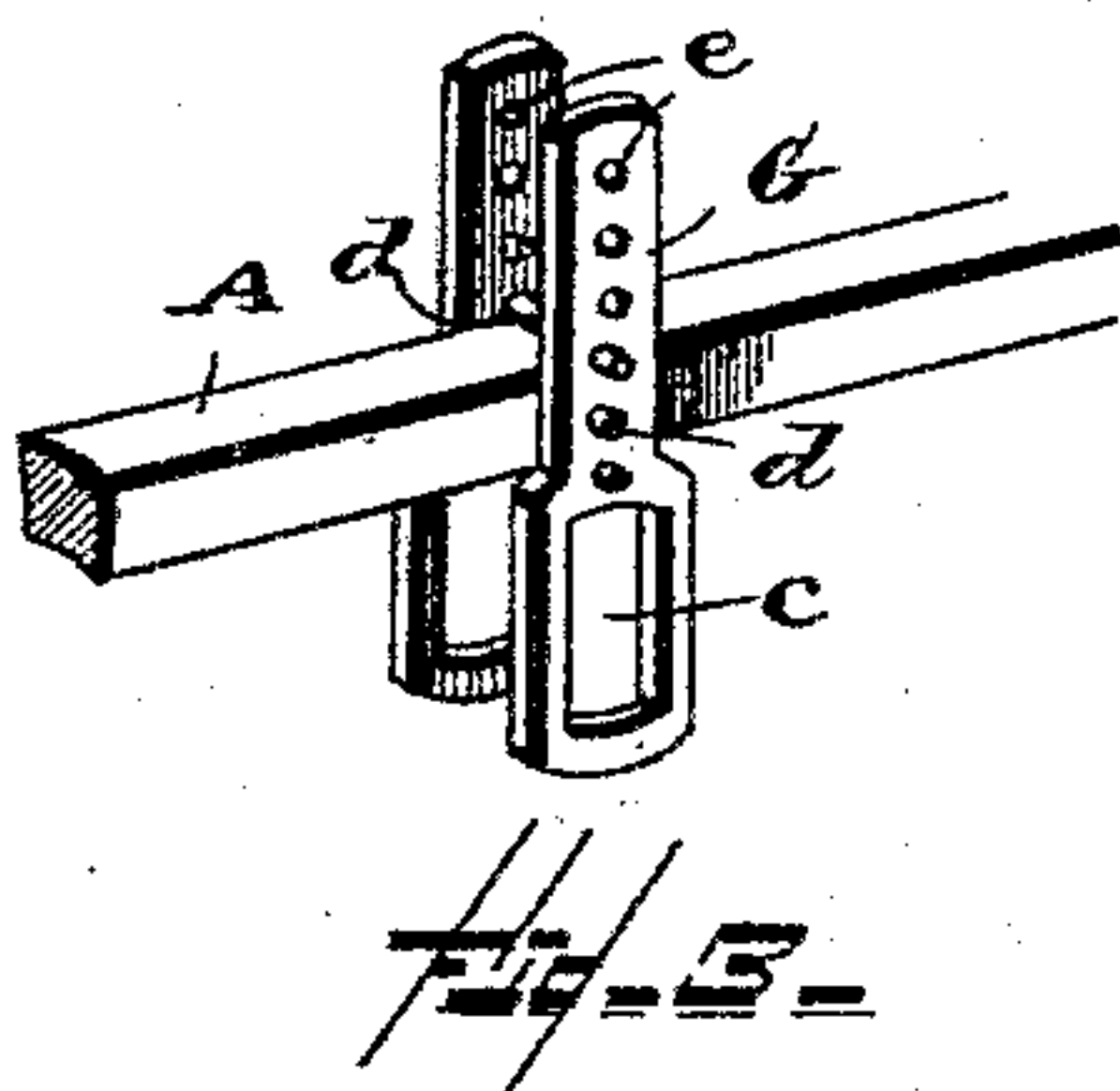
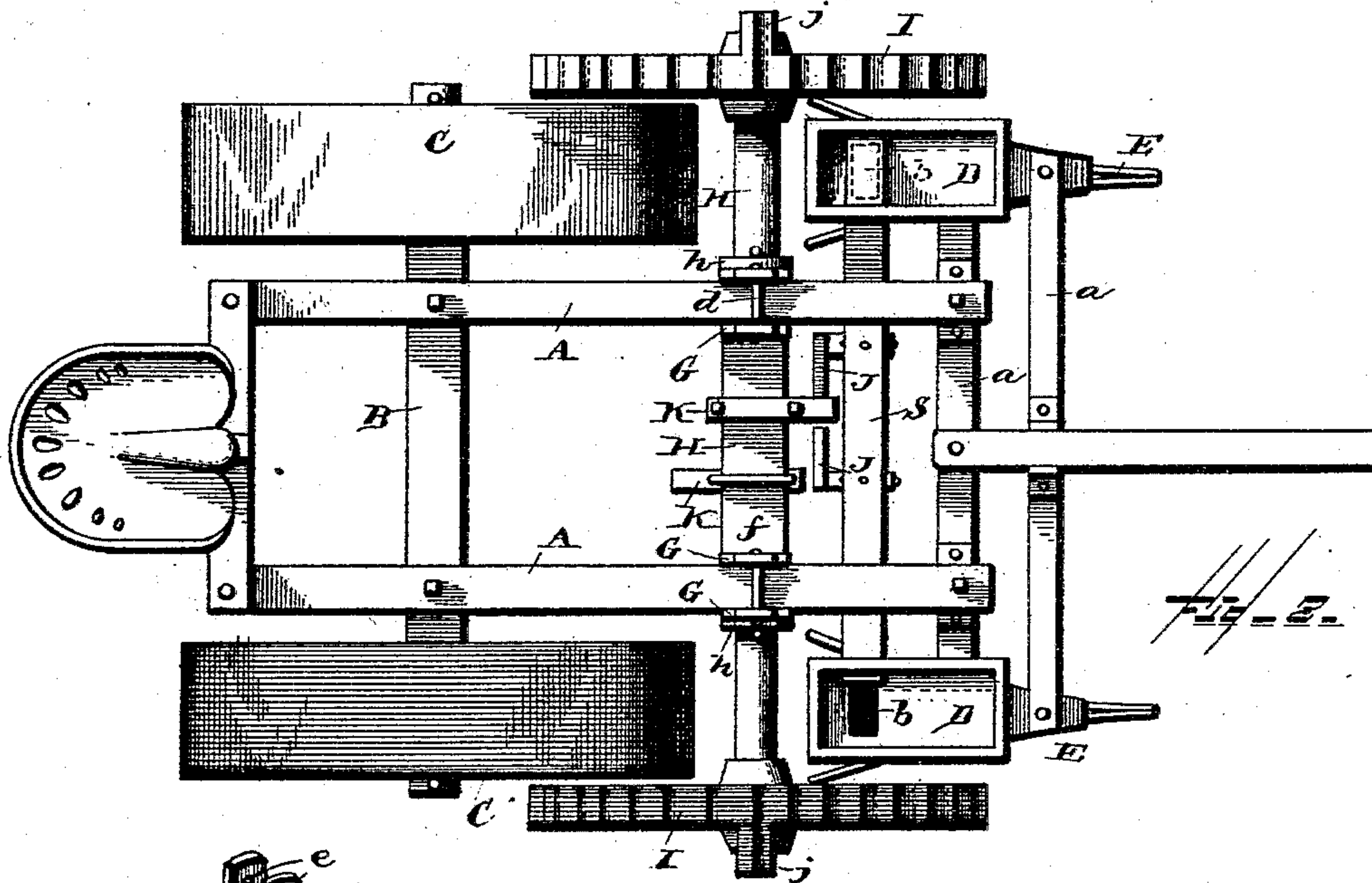
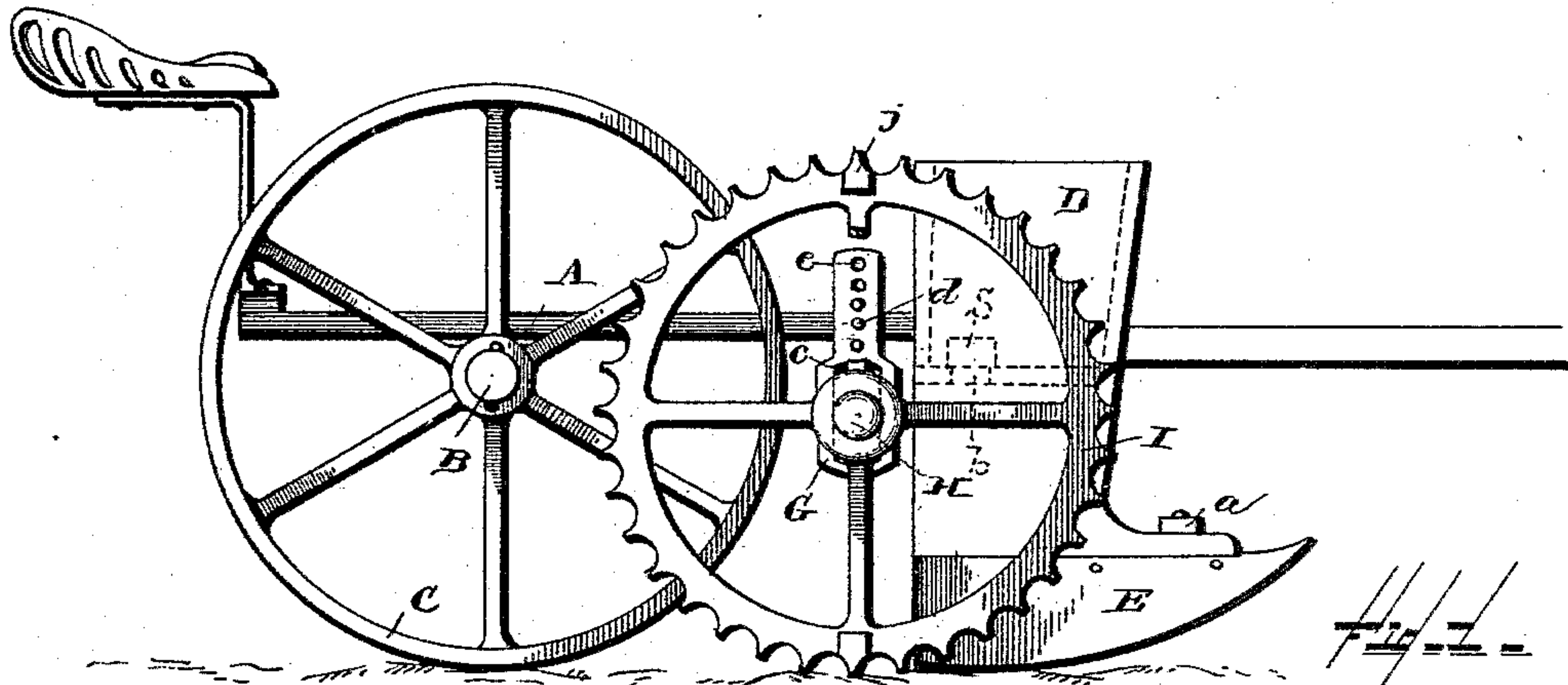
(No Model.)

J. F. A. WINKELMANN.

CORN PLANTER.

No. 412,150.

Patented Oct. 1, 1889.



Witnesses

Albert Speiden,
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UNITED STATES PATENT OFFICE.

JOHANN F. A. WINKELMANN, OF SCHELL CITY, MISSOURI.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 412,150, dated October 1, 1889.

Application filed June 26, 1889. Serial No. 315,573. (No model.)

To all whom it may concern:

Be it known that I, JOHANN F. A. WINKELMANN, a citizen of the United States, residing at Schell City, in the county of Vernon and State of Missouri, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in corn-planters; and it has for its object to provide an implement of this class that shall be durable, easily operated, and efficient in operation.

The invention consists in the peculiar combinations, and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side view of my improved device. Fig. 2 is a top plan view of the same. Fig. 3 is a detached perspective detail. Fig. 4 is a similar view, showing the mechanism for operating the feed-slide.

Referring now to the details of the drawings by letter, A designates the frame of suitable size and material; and B is the main axle attached to the rear side bars of said frame and carrying at its ends the wheels C, which are loose thereon. Secured to the forward ends of the side bars of the frame are the transverse bars *a*, which carry the seed-boxes D and shoes E. The runners are in line with the wheels B, as shown, and are adapted to open the ground in the usual manner.

S is the feed-slide working in suitable guides in the sides of the seed-boxes and adapted to alternately open and close the feed-openings *b* of said boxes.

G are hangers formed at their lower ends with elongated slots *c*, and are arranged in

pairs, one pair on each of the longitudinal bars of the frame, as shown. These hangers are secured to the bars by means of the cross-bars *d*, which pass through holes *e* in the hangers, there being a plurality of holes in each hanger to provide for vertical adjustment thereof when necessary.

H is a transverse shaft formed between its ends with a squared portion *f*, and this shaft has bearings in the hangers and is free to play vertically in the slots therein. It is prevented from much endwise movement by means of the square shoulder formed upon the inner side of the bars of the frame, as shown at *g*, and by means of the washers *h* held thereon outside of the hangers, as shown. Fast on the outer ends of this shaft are the measuring-wheels I, the peripheries of which are roughened, as shown, and projecting from the outer rims thereof at diametrically-opposite sides are the shoes or flanges *j*, which serve as the markers.

On the feed-slide are fixed the plates J, the upper faces of the vertical portions of which are oppositely inclined, as shown best in Fig. 4.

Fast on the shaft H, on the squared portion thereof, are the fingers or arms K, attached thereto by suitable clips and extending in opposite directions from opposite sides thereof and arranged in the turning of the shaft to come in contact with first one and then the other of the inclined faces of the plates J, and thereby alternately move the feed-slide back and forth, and thus open and close the feed-openings in the seed-boxes.

What I claim as new is—

1. The combination, with the frame, feed-boxes, and reciprocating feed-slide, of the transverse shaft, the measuring-wheels carried thereby, the plates on the feed-slide embracing the slide upon two sides and formed with oppositely-inclined faces, and the fingers clamped on the shaft of the measuring-wheels and extending in opposite directions to contact directly with the said inclined faces, substantially as and for the purpose specified.

2. The combination, with the frame, the seed-boxes, the reciprocating feed-slide, and

the plates secured to the feed-slide and formed
with vertical portions having oppositely-in-
clined faces, of the hangers secured to the
frame, the transverse shaft journaled in the
5 hangers and formed with squared portion be-
tween the hangers, and the fingers secured to
the squared portion of the shaft by clips and
extending in opposite directions from oppo-
site sides thereof, substantially as and for the
10 purpose specified.

In testimony that I claim the above I have
hereunto subscribed my name in the presence
of two witnesses.

JOHANN F. A. WINKELMANN.

Witnesses:

E. SANDON,
W. F. MARING.