

**No. 713,818.**

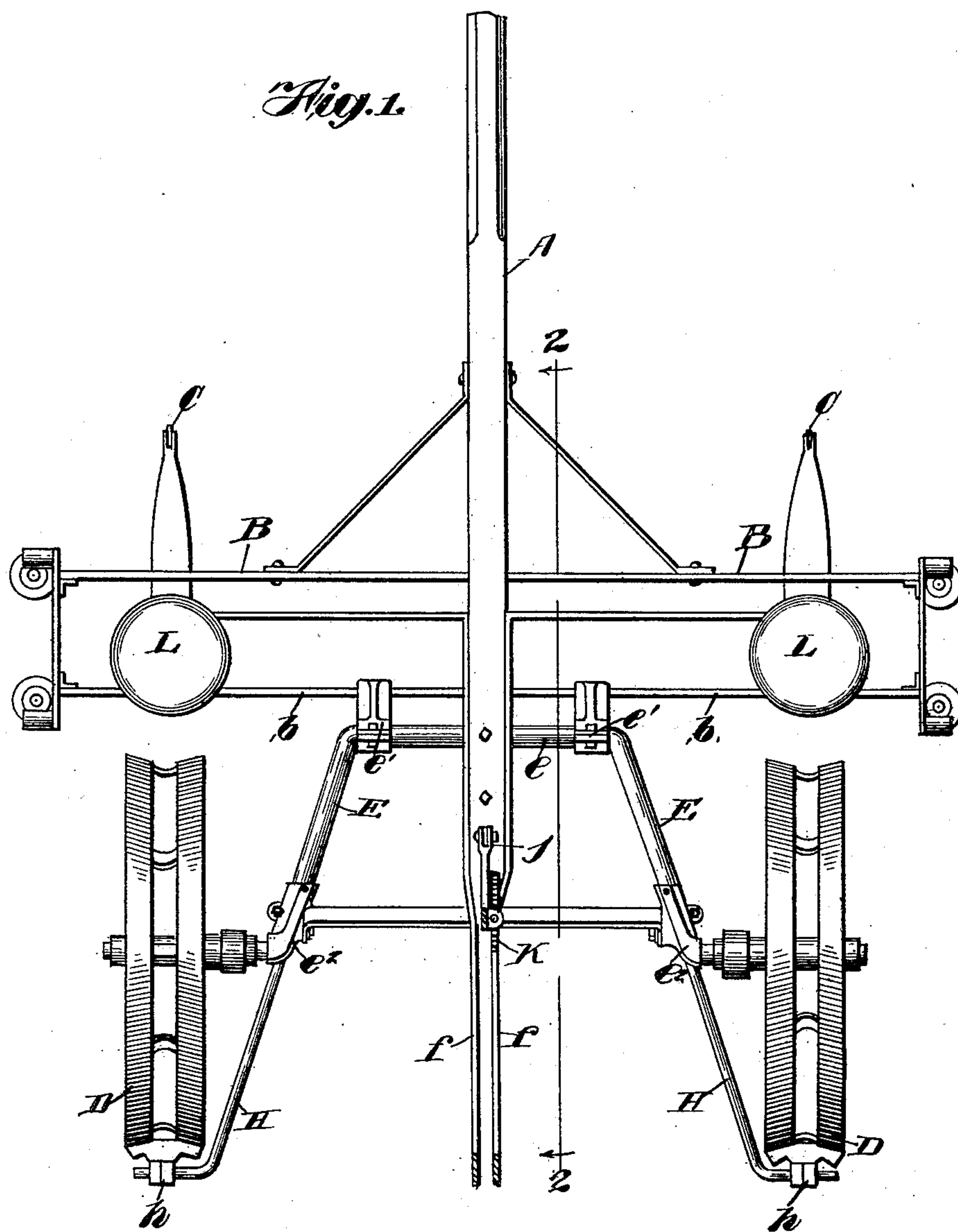
**Patented Nov. 18, 1902.**

**S. H. TINSMAN.**  
**CORN PLANTER.**

(Application filed Sept. 6, 1902.)

(No Model.)

**3 Sheets—Sheet 1.**



**Witnesses:**

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Harry R. Baumgartner.

*Inventor:*

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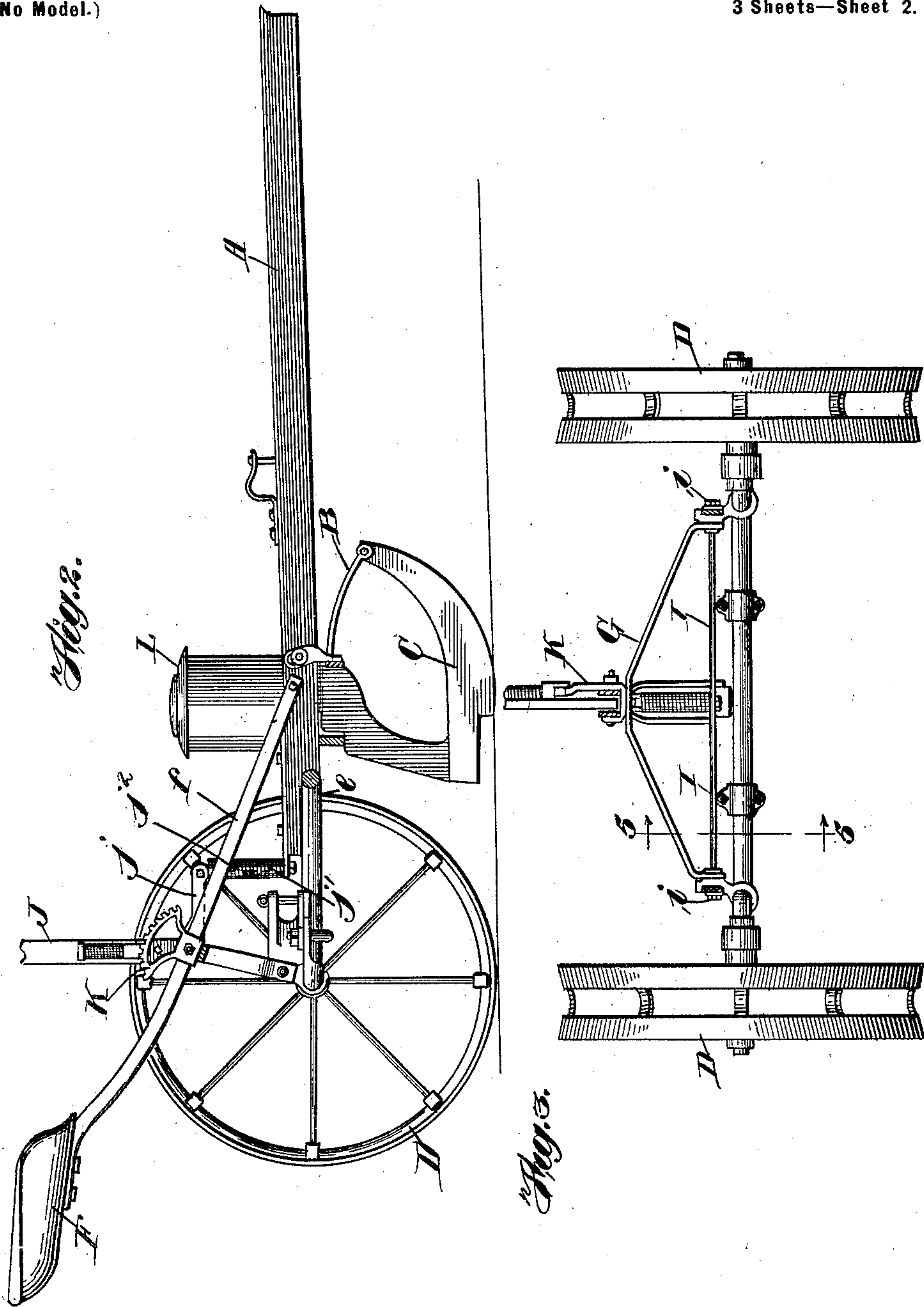
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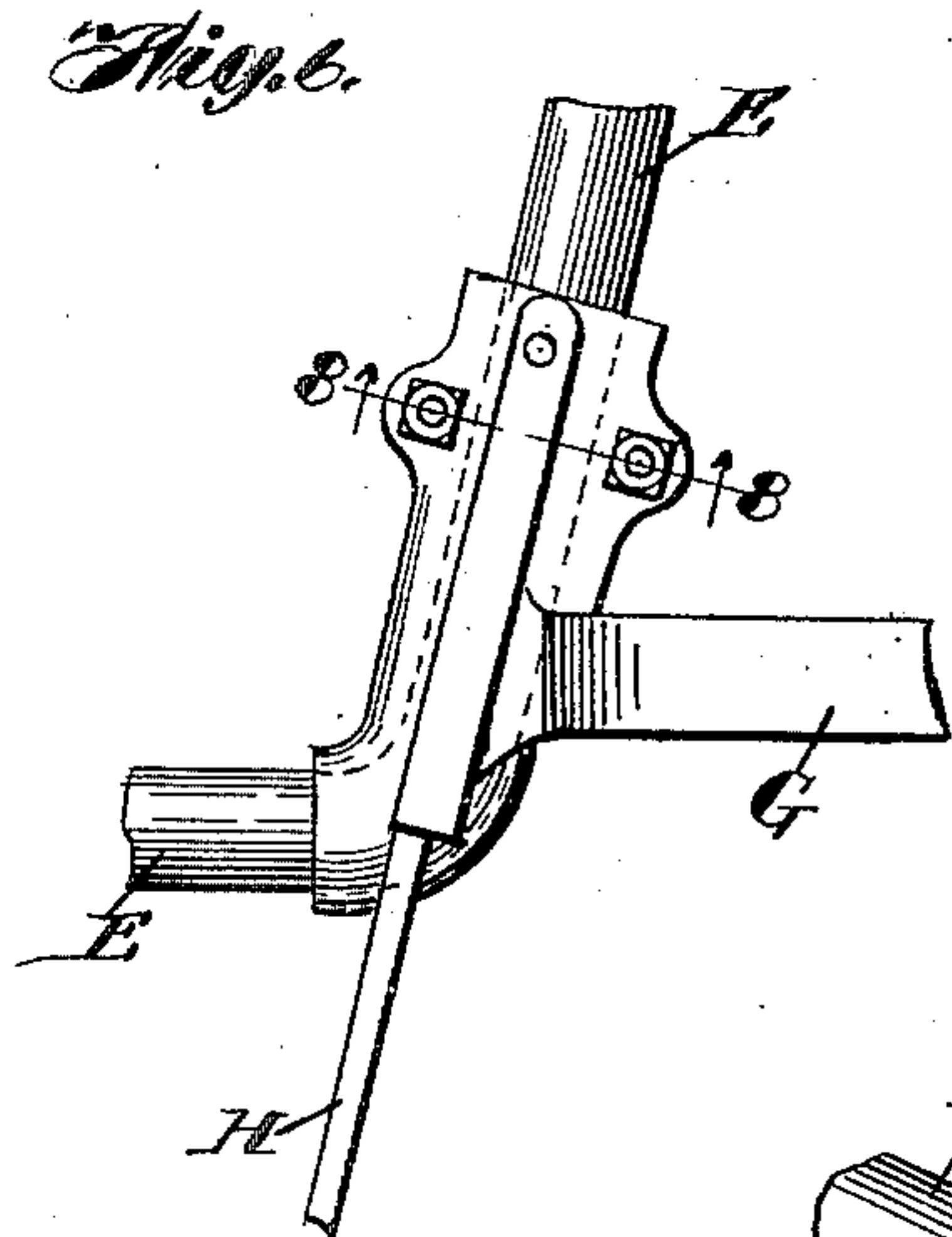
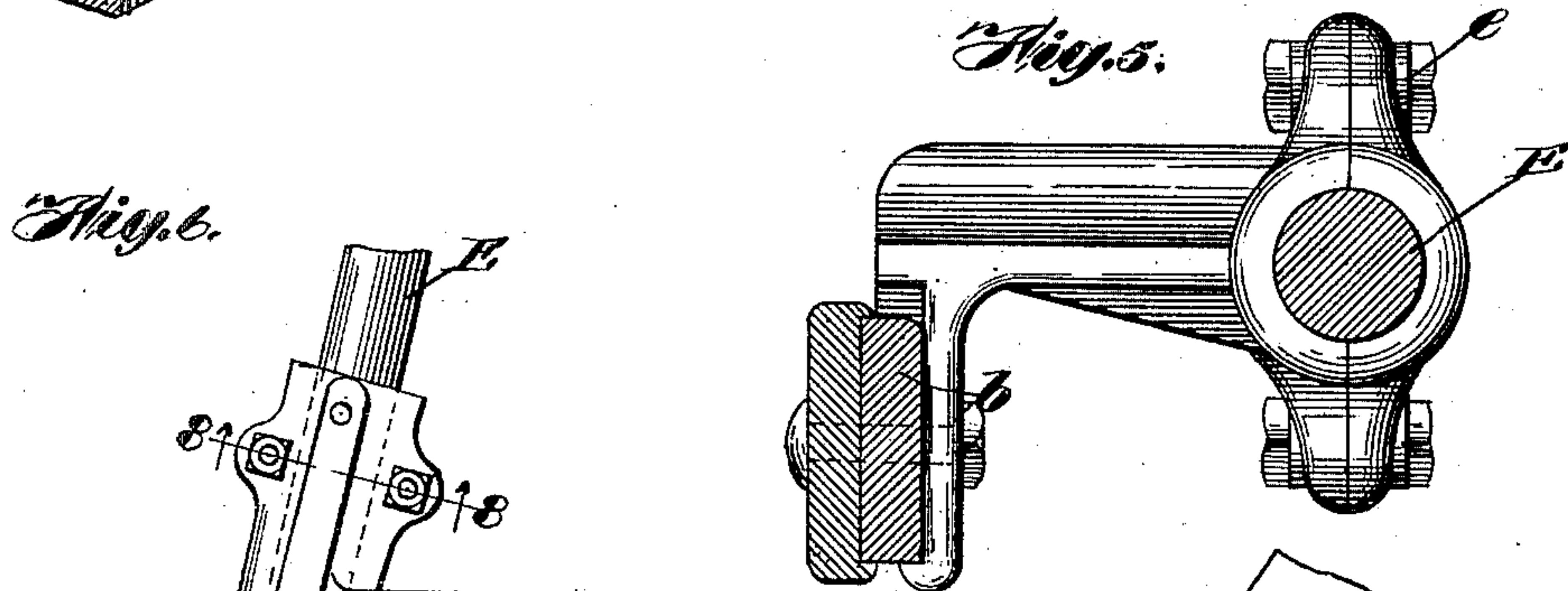
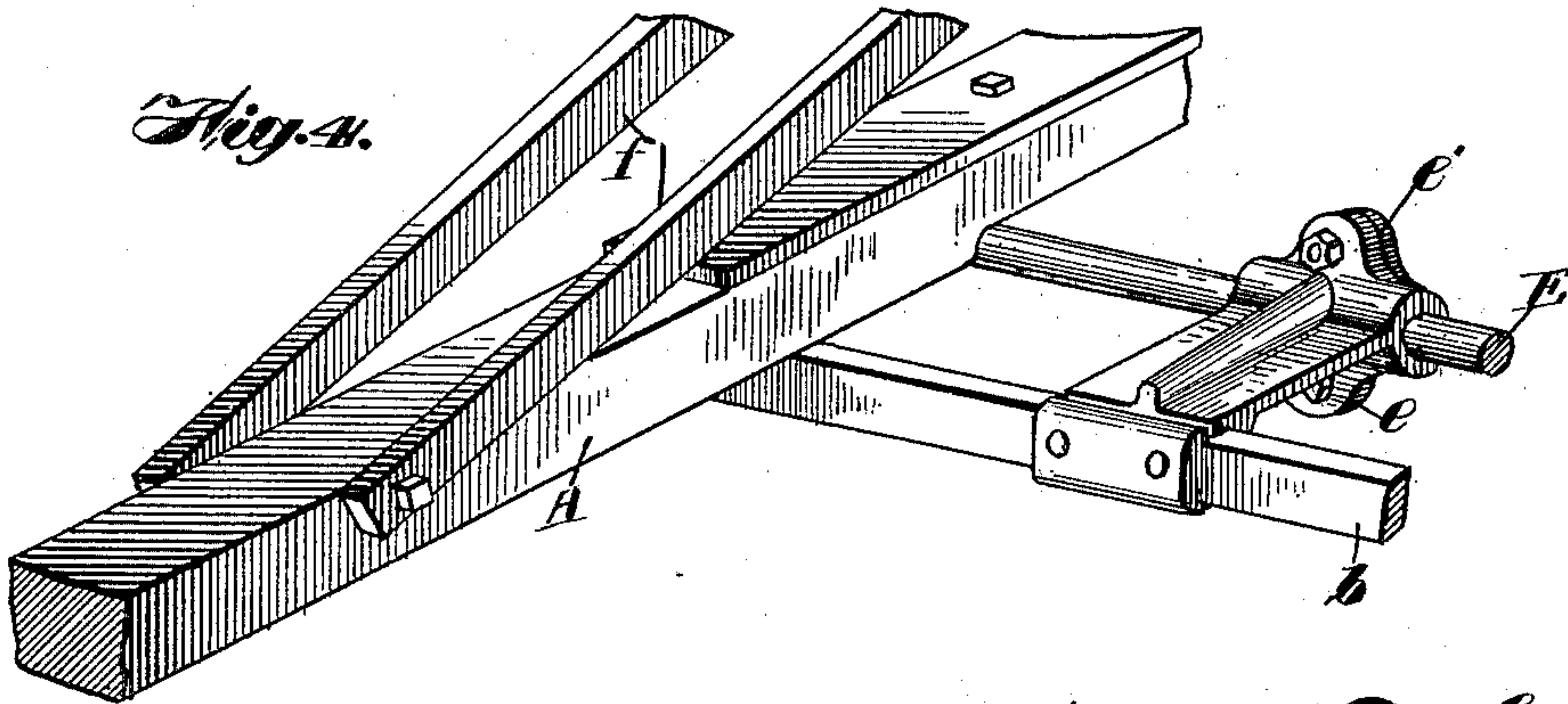
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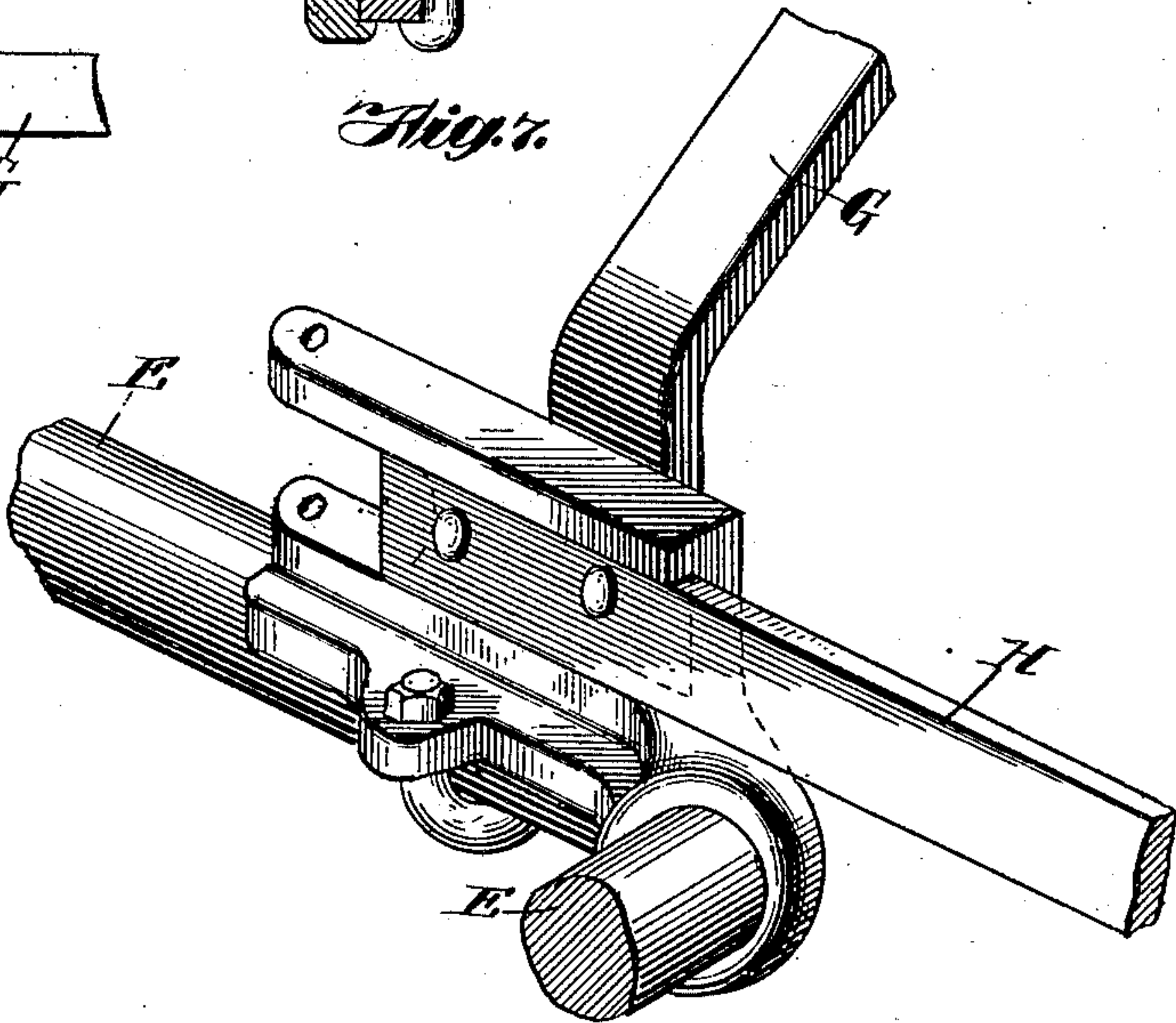
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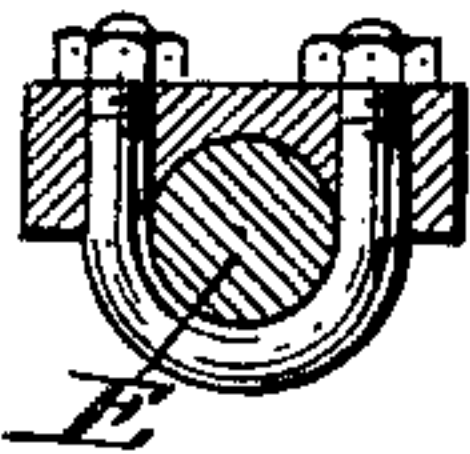
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*Fig. 7.*



*Fig. 8.*



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# UNITED STATES PATENT OFFICE.

SAMUEL H. TINSMAN, OF DAVENPORT, IOWA.

## CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 713,818, dated November 18, 1902.

Application filed September 6, 1902. Serial No. 122,313. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL H. TINSMAN, a citizen of the United States of America, and a resident of Davenport, Scott county, Iowa, have invented a certain new and useful Improvement in Corn-Planters, of which the following is a specification.

My invention relates to corn-planters in general, but more particularly to those known as "check-rowers."

Generally stated, the object of my invention is to provide a simple, comparatively inexpensive, and highly efficient construction of corn-planter.

A special object is to provide an improved connection between the runner-frame and the supporting-wheels, so as to not only secure simplicity and economy of construction, but to combine lightness with the requisite strength and rigidity.

It is also an object to provide certain details and features of improvement tending to increase the general efficiency and serviceability of a corn-planter of this character.

To the foregoing and other useful ends my invention consists in matters hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 is a plan of a corn-planting machine constructed in accordance with my invention. Fig. 2 is a section on line 2 2 in Fig. 1. Fig. 3 is a rear elevation of the machine shown in Figs. 1 and 2. Fig. 4 is a perspective of the rear end of the tongue and adjacent parts. Fig. 5 is an enlarged detail section on line 5 5 in Fig. 3. Fig. 6 is a plan of one of the castings which serve as a medium of connection between the crank-axle, the scraper-bars, and the arched support or bail which carries the seat-bars. Fig. 7 is a perspective of the casting and adjacent parts shown in Fig. 6, and Fig. 8 is a cross-section on line 8 8 in Fig. 6.

As thus illustrated, my improved corn-planter may comprise a tongue A of suitable length and character, and connected at its rear end with the runner-frame B. The usual runners or furrow-openers C are secured to the said runner-frame and are arranged one at each side of the machine in the usual manner. The supporting or ground wheels D are arranged to travel behind the said run-

ners or furrow-openers, and are preferably mounted upon the end portions of the bail-shaped crank-axle E. This crank-axle has its middle portion *e* rotatively connected with the frame-bar *b* by means of two-part bearings *e'*. The driver's seat F is connected with the rear end portion of the tongue by means of a couple of parallel seat-bars *f*. The castings *e''* can be employed for connecting the crank-axle with the arched support or bail G, which serves as a support for the two rearwardly-extending seat-bars. These castings can also be of such character as to provide means for attaching and detaching the scraper-bars H. As a means for tying the parts firmly together, a rod I, having threaded end portions, can be arranged to extend through both of the castings and also through the bail or arched support G and the two scraper-bars. Nuts *i* can be applied to the ends of said rod, so as to firmly clamp the parts together.

The raising-and-lowering lever J is preferably pivoted to the lower portion of the rack K, which latter is in turn secured upon the upper portion of the arched or bail-like support G. As a simple and effective arrangement the elbow portion of this raising-and-lowering lever can be pivotally mounted directly between the two seat-bars *f*. The relatively short lower arms *j* of the raising-and-lowering lever can be connected with the rear end of the tongue by means of a rod or bolt *j'*. A spring *j''*, interposed between the rear end of the tongue and the under side of the lever-arm *j*, serves as a cushion and allows the runners to rise relatively to the body structure of the machine without straining or breaking any of the parts. At the same time this spring is of sufficient strength and is capable of exerting a sufficient downward tension to hold the runners firmly in the ground. The said scraper-bars H preferably carry scrapers *h*, adapted to engage the ground-wheels, substantially as shown in Fig. 1. The seed-boxes L can be of any suitable known or approved form and can be mounted on the runner-frame over the runners in the usual and well-known manner. It will be understood that any suitable form of dropping mechanism can be employed for controlling the dis-



charge of seed or corn from these hoppers and that the check-rowing arrangement can be of any of the well-known or approved forms. For this reason neither the dropping mechanism nor the check-rowing attachments have been shown in the drawings.

The pivotal or swinging connection provided between the ground-wheels and the runner-frame insures a high degree of strength and rigidity. Furthermore, the requisite strength and rigidity are obtained with practically a minimum weight and amount of materials. The ground-wheels are, it will be seen, mounted upon a member which is continuous from end to end and which is preferably, as described, in the nature of a bail-shaped crank-axle having its middle portion rotatively connected with the runner-frame by means of separable or two-part bearings. In this way the crank-axle can be readily attached to or detached from the runner-frame, and, furthermore, when the runner-frame is raised from the ground the crank-axle holds the runner-frame so rigidly that it cannot possibly be depressed at either side, even though considerable weight or downward pressure be thrown upon one end portion of the runner-frame. In this way the novel construction insures against loose joints and a loosening or partial dismembering of the different parts which might result from the strains incident to long and continued service. Furthermore, it will be seen that the raising and lowering devices and the connections between the tongue and seat are very simple and, in addition, of a character to insure an easy and perfect control of the machine. The seat is, it will be observed, far enough in the rear to permit the weight of the driver to counterbalance the runner-frame when it becomes desirable to raise the latter from the ground. With respect to this feature of construction it will also be seen that the crank-axle serves as a fulcrum for the lever composed of the seat-bars and the arch G, the driver employing the lever thus fulcrumed in raising and lowering the runners and runner-frame.

I claim as my invention—

1. In a corn-planter, the combination of a forward runner-frame, a crank-axle having its middle portion rotatively connected with the said runner-frame, ground-wheels mounted on the end portions of said crank-axle, and hoppers and dropping mechanism mounted on the runner-frame.

2. In a corn-planter, the combination of a runner-frame, a bail-shaped crank-axle having its middle portion relatively connected with the said runner-frame, ground-wheels on the end portions of said crank-axle, a tongue rigid with the said runner-frame, a pair of seat-bars pivotally connected with said tongue and connected to fulcrum about the said crank-axle, and a driver's seat mounted on the rear end of said seat-bars.

3. In a corn-planter, the combination of a

runner-frame, a bail-shaped crank-axle, a pair of two-part bearings for rotatively connecting the middle portion of said axle with the rear portion of the said runner-frame, ground-wheels on the end portions of said crank-axle, and seedboxes and dropping mechanism mounted on the runner-frame.

4. In a corn-planter, a runner-frame carrying a rear rotary portion provided with a pair of rearwardly-extending swinging crank-arms, and ground-wheels on said arms.

5. In a corn-planter, the combination of a runner-frame, a bail-shaped crank-axle having its middle portion rotatively connected with said runner-frame, a tongue rigid with the runner-frame, a pair of seat-bars pivotally connected with the tongue, a pair of castings mounted on the crank-axle, an arched member having its end portions secured to said castings and its middle portion connected to support the seat-bars, a seat on said bars, and a hand-lever mounted between said bars and connected and arranged for raising and lowering said runner-frame.

6. In a corn-planter, the combination of a runner-frame, a bail-shaped crank-axle having its middle portion rotatively connected with the runner-frame, a tongue rigid with the runner-frame, a pair of seat-bars pivotally connected with the tongue, a seat on said bars, a pair of castings secured to said axle, an arch-shaped member having its end portions secured to said castings and its middle portion arranged to support the said seat-bars, ground-wheels on said axle, scraper-bars secured to said castings, and wheel-scraper on said scraper-bars.

7. In a corn-planter, the combination of a runner-frame, an axle having a bail-shaped middle portion, a pair of two-part bearings for rotatively connecting said runner-frame with the said middle portion of the crank-axle, ground-wheels mounted on the end portions of said axle, a tongue rigid with said runner-frame, a hand-lever arranged for raising and lowering the runner-frame, and a spring interposed between the said lever and the rear end of the said tongue.

8. In a corn-planter, the combination of a runner-frame, seedboxes and runners on the said frame, a crank-axle having a bail-shaped middle portion, bearings for rotatively connecting the said runner-frame with the said middle portion of the crank-axle, ground-wheels on the end portions of the said crank-axle, castings on said crank-axle, a tongue rigid with the said runner-frame, a pair of seat-bars pivotally connected with said tongue, an arch-shaped member having its end portions connected with said castings and its middle portion arranged to support said seat-bars, a seat on the rear end of said seat-bars, a lever connected and arranged for raising and lowering said runners and runner-frame, the said seat-bars serving as a lever with the said axle as a fulcrum to permit



the weight of the driver to more or less counterbalance the weight of the runner-frame.

9. A planting-machine, comprising suitable runners, a pair of ground-wheels arranged to follow said runners, and a rotary member provided with rearwardly-extending crank-arms upon which wheels are mounted, said rotary member and crank-arms serving as medium

of swinging connection between the said runners and wheels.

Signed by me at Davenport, Scott county, Iowa, this 31st day of July, 1902.

SAMUEL H. TINSMAN.

Witnesses:

F. A. HEAD,

J. D. VAN BUREN.