

(No Model.)

3 Sheets—Sheet 1.

H. E. PRIDMORE.
SHEAF CARRIER.

No. 401,902.

Patented Apr. 23, 1889.

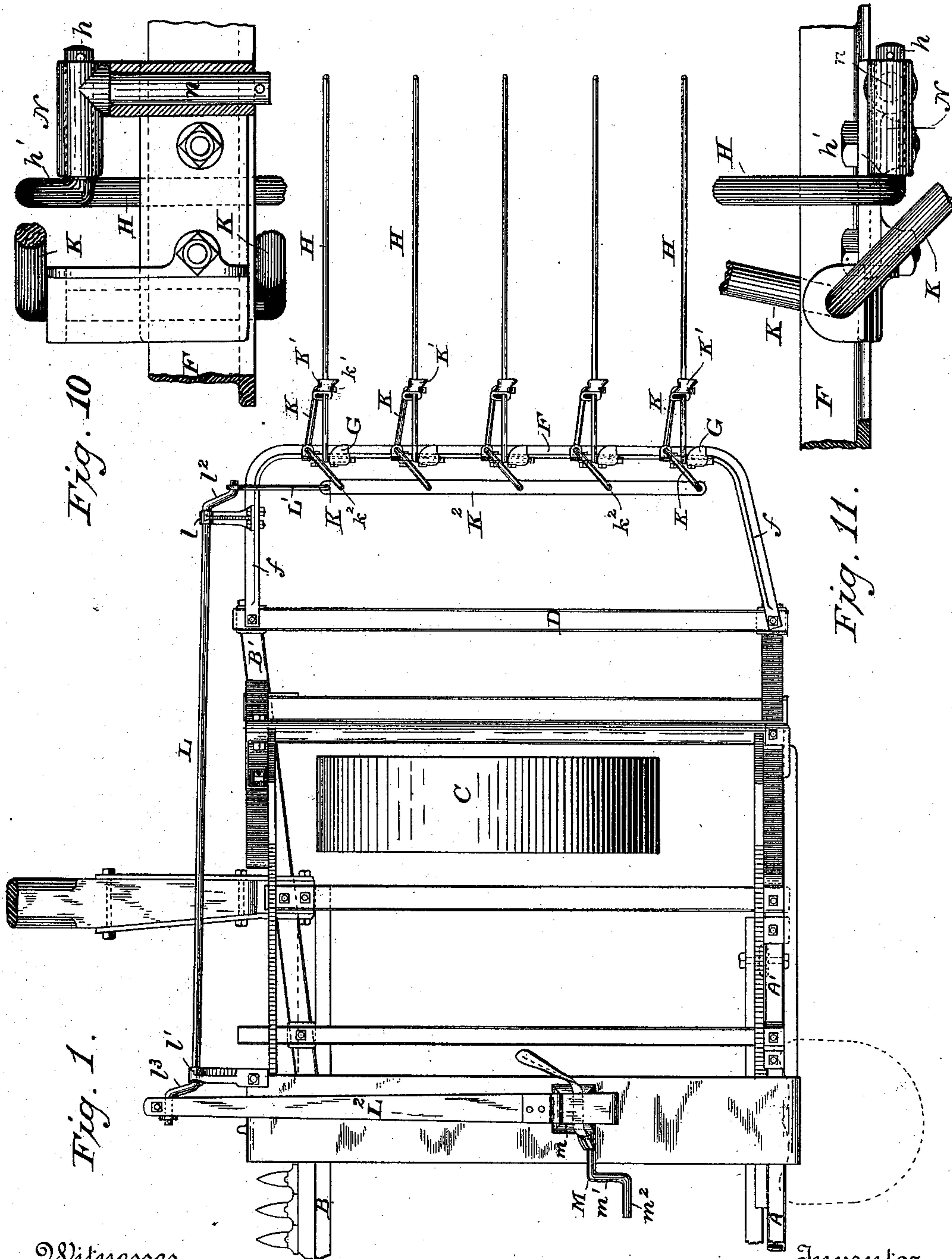


Fig. 1.

Fig. 10.

Fig. 11.

Witnesses

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Chas. E. Gorton

Inventor

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By his Attorneys

Ramison & Ramison

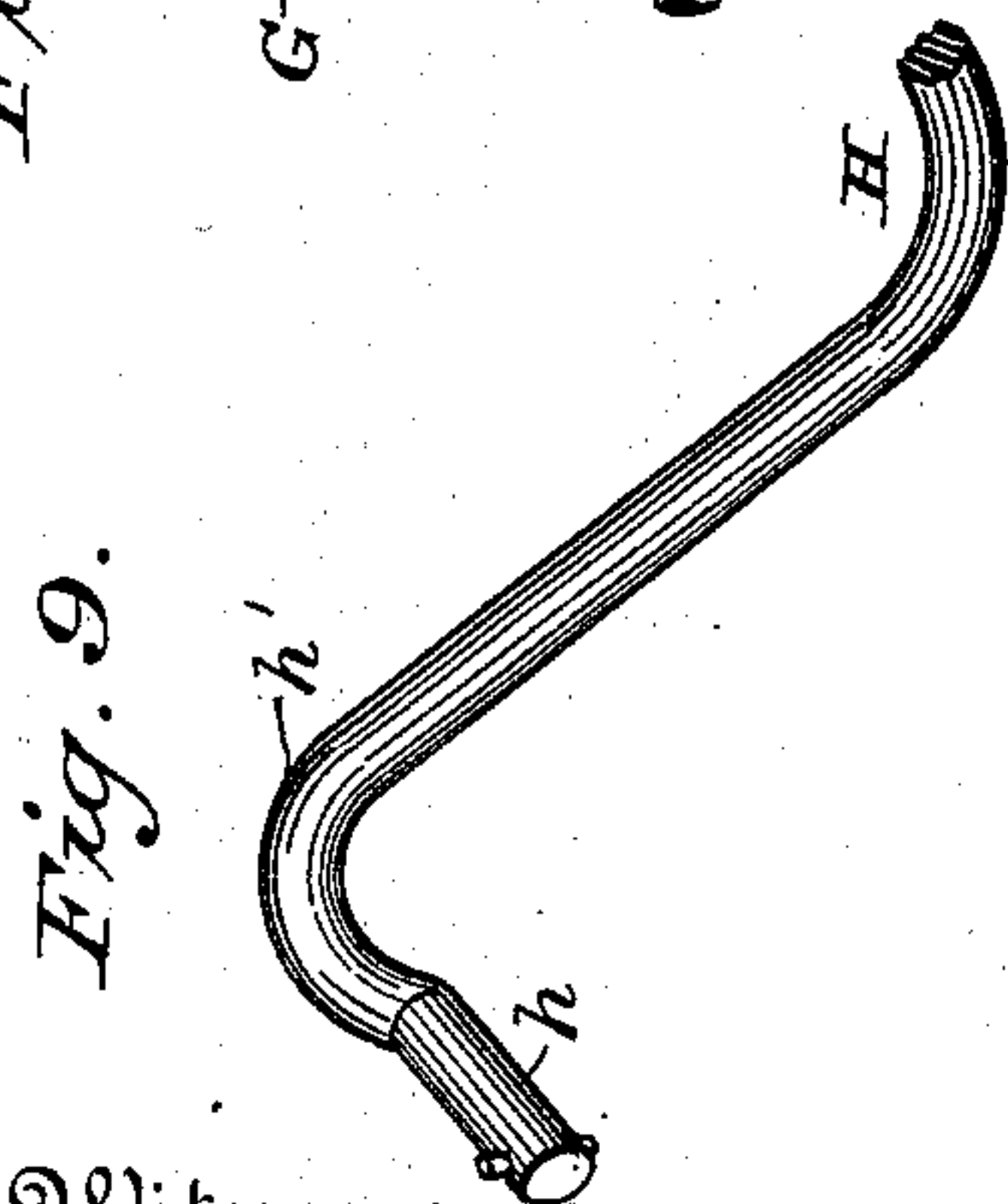
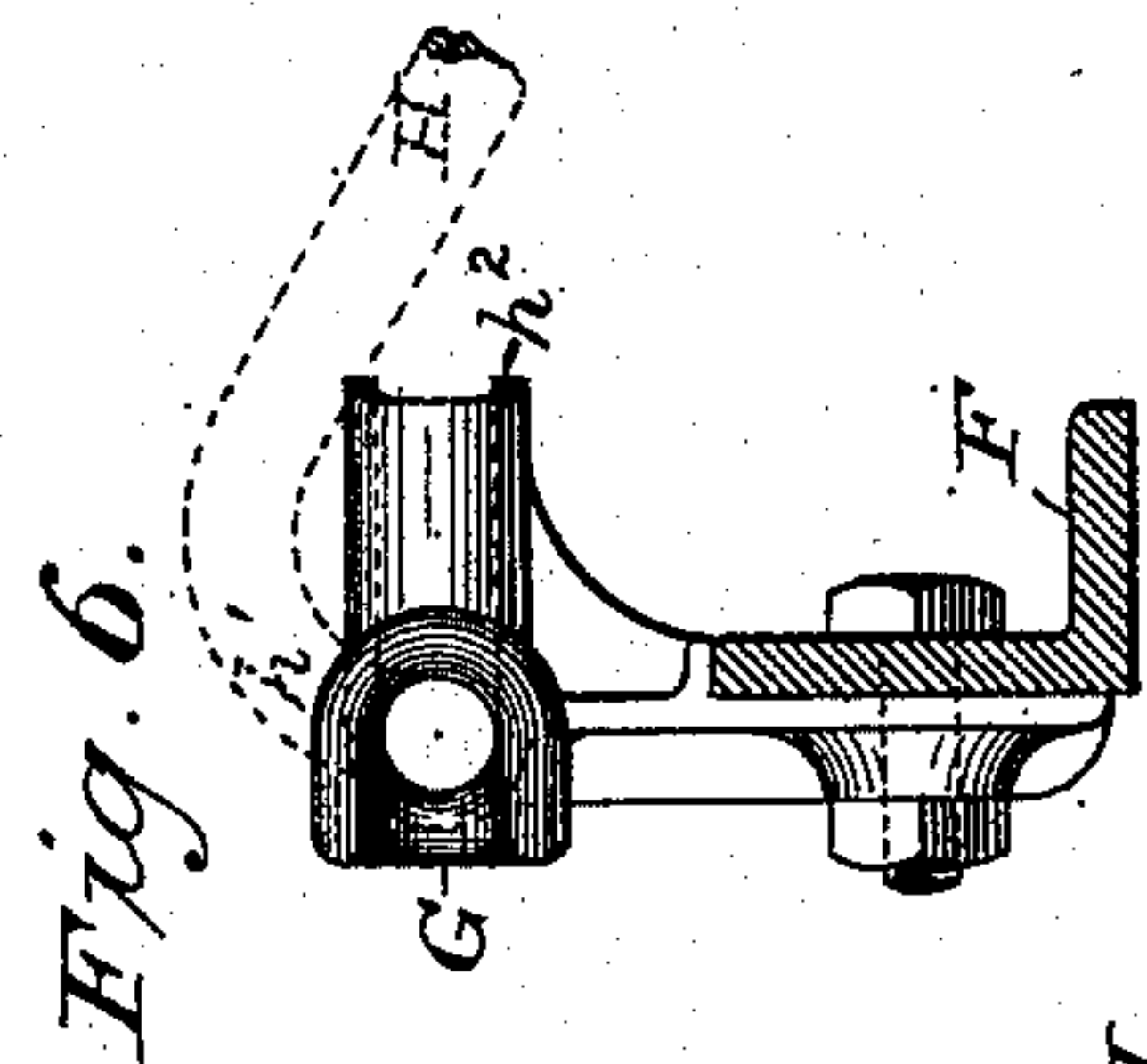
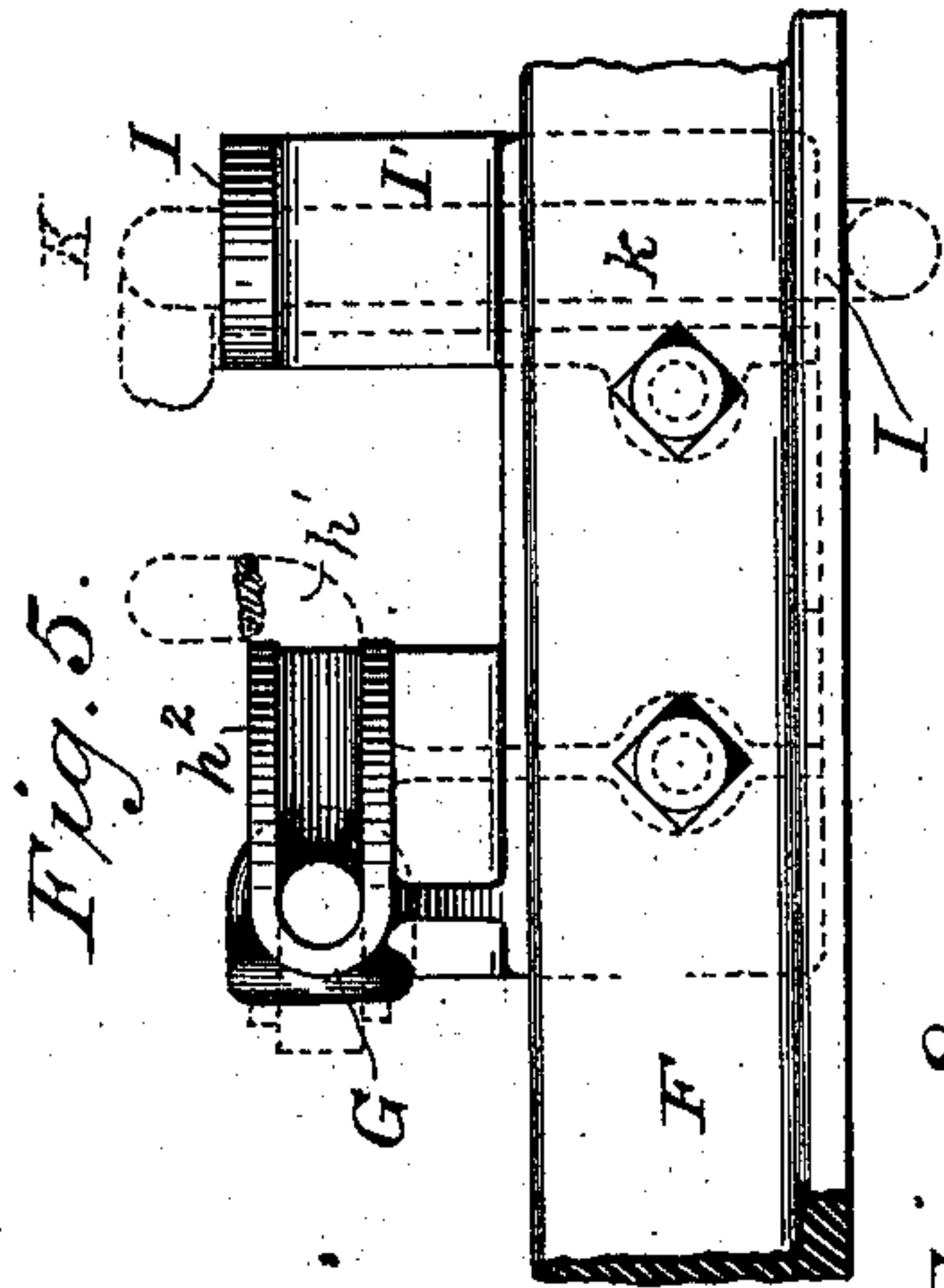
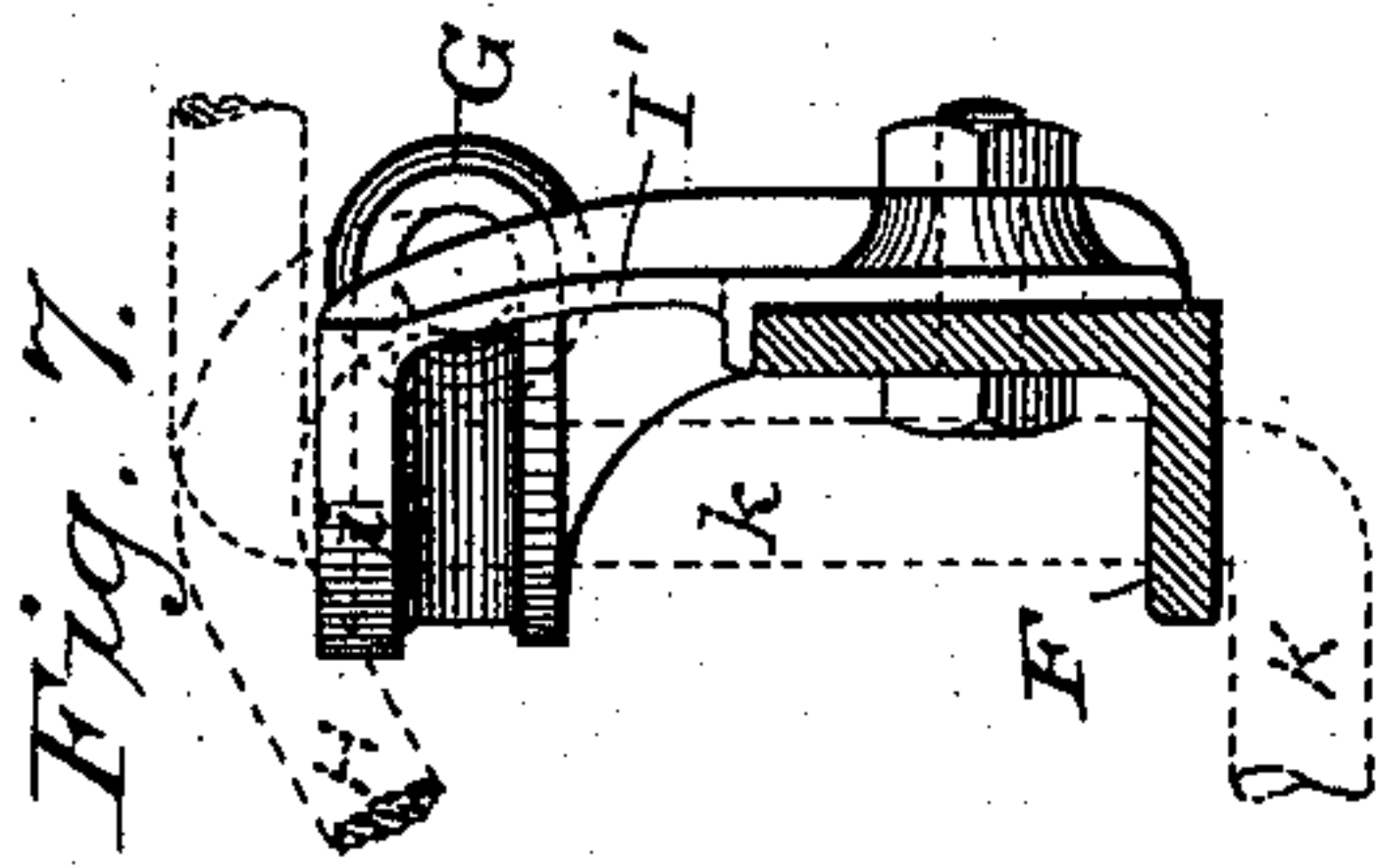
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3 Sheets—Sheet 2.

H. E. PRIDMORE.
SHEAF CARRIER.

No. 401,902.

Patented Apr. 23, 1889.



Witnesses,

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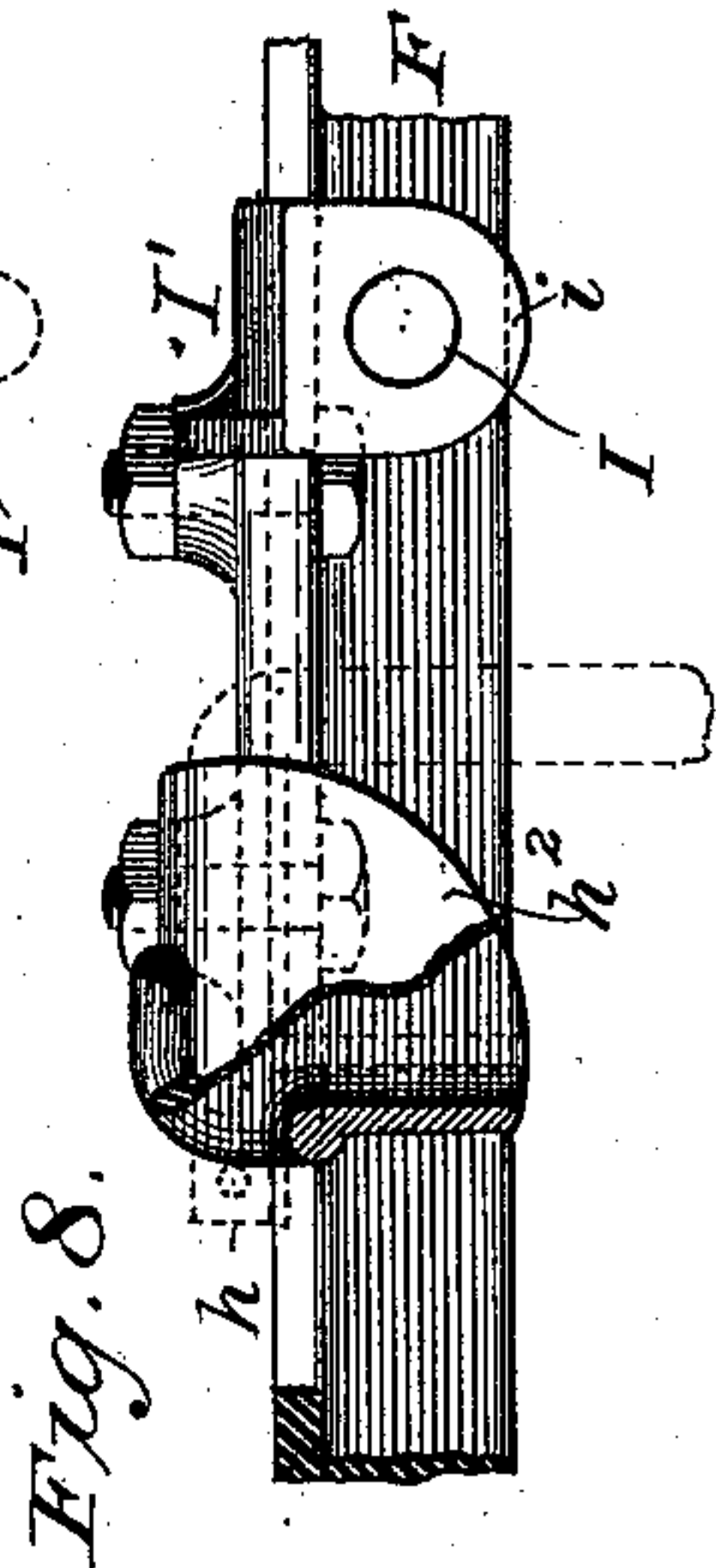
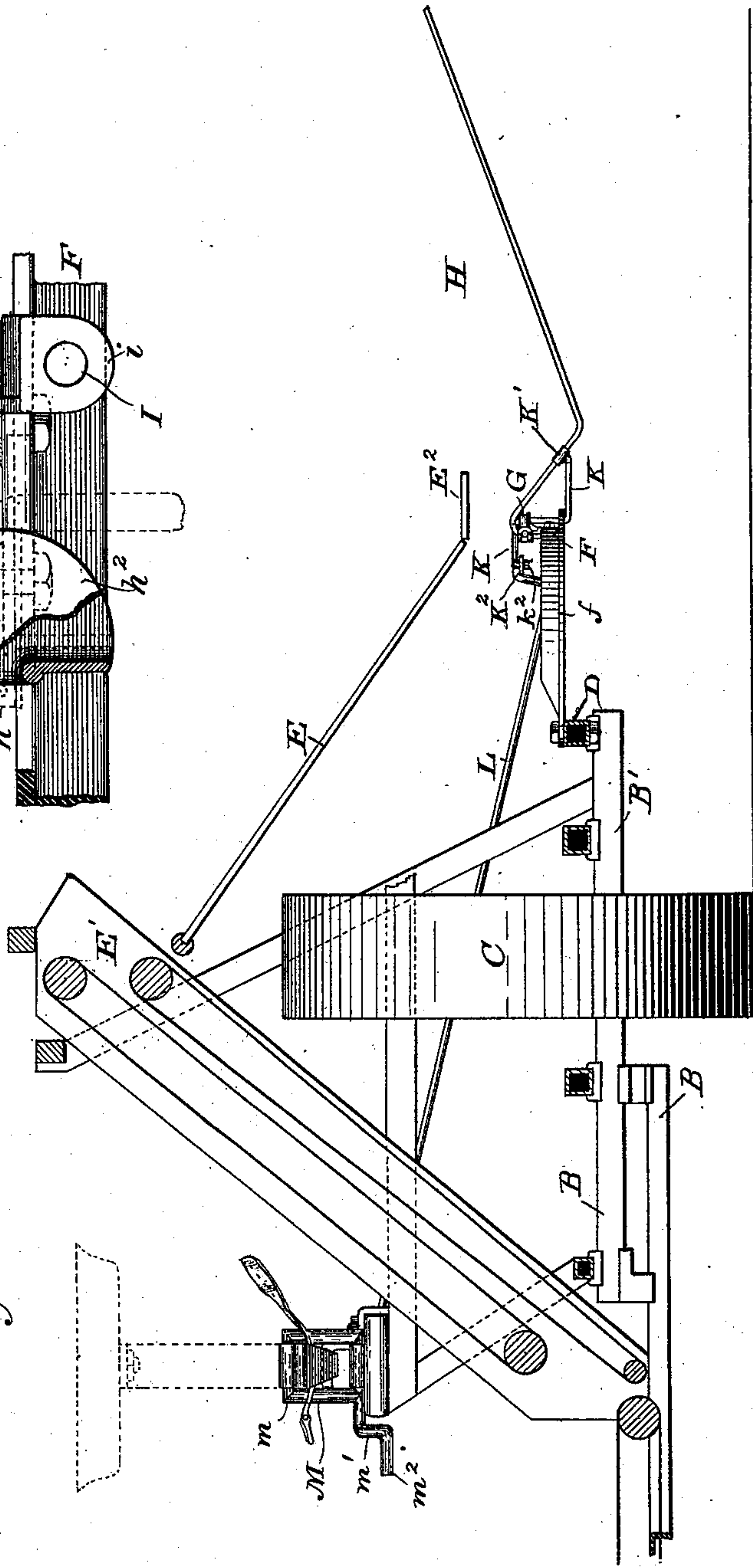


Fig. 2.



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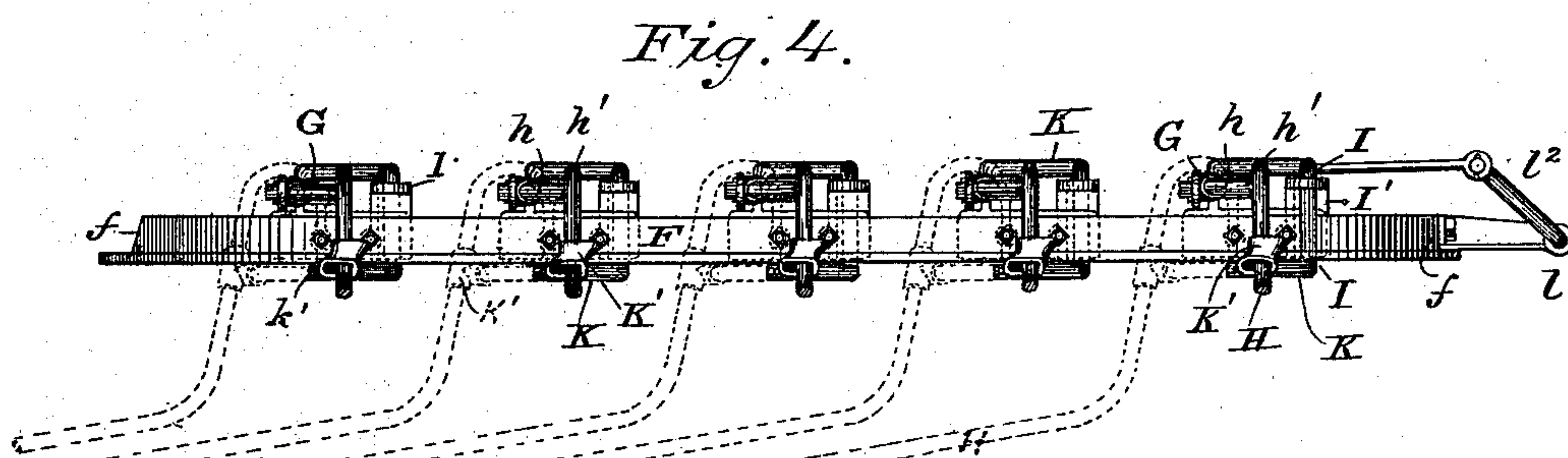
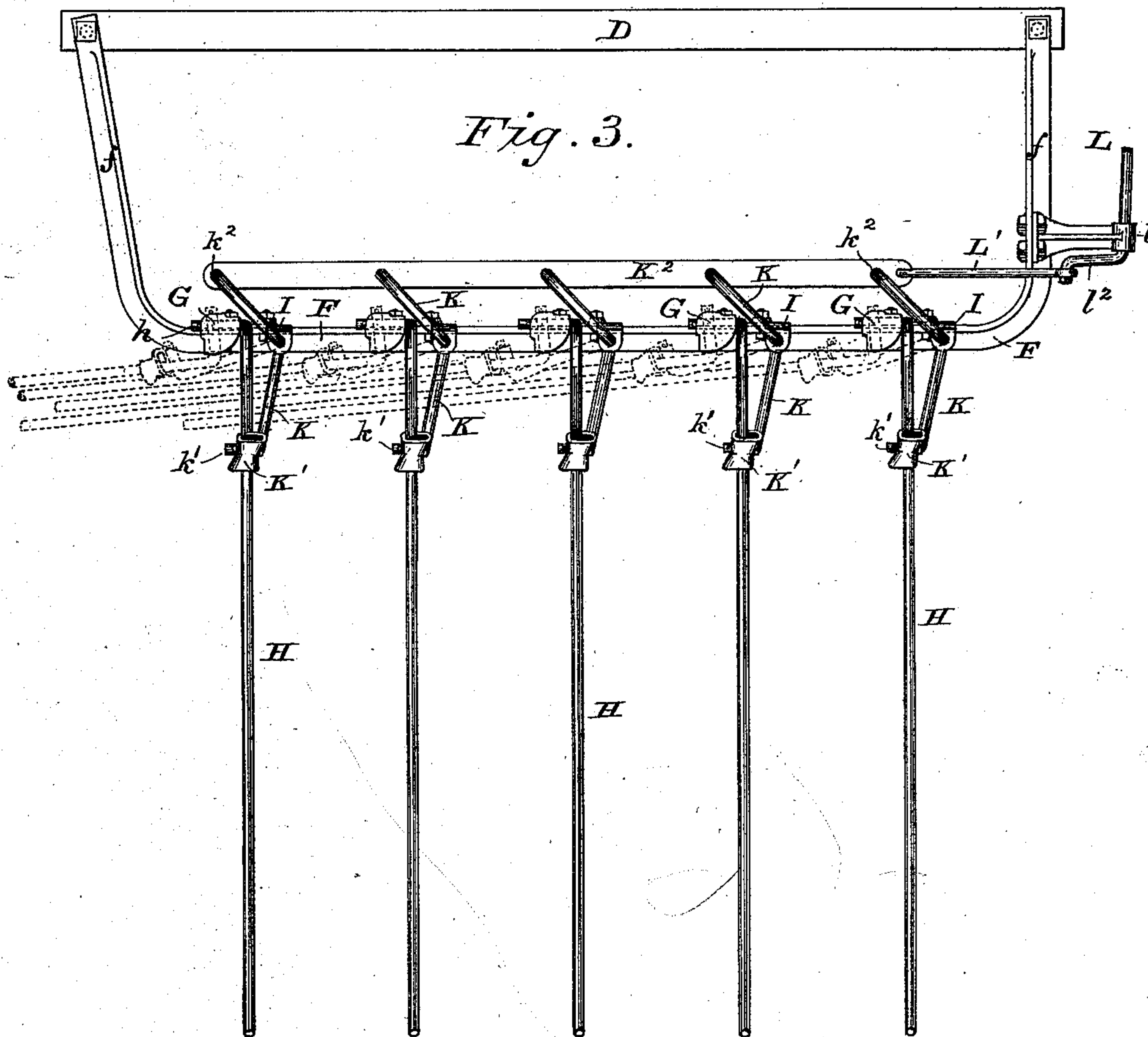
(No Model.)

3 Sheets—Sheet 3.

H. E. PRIDMORE.
SHEAF CARRIER.

No. 401,902.

Patented Apr. 23, 1889.



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UNITED STATES PATENT OFFICE.

HENRY E. PRIDMORE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE McCORMICK HARVESTING MACHINE COMPANY, OF SAME PLACE.

SHEAF-CARRIER.

SPECIFICATION forming part of Letters Patent No. 401,902, dated April 23, 1889.

Application filed October 4, 1888. Serial No. 287,165. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. PRIDMORE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sheaf-Carriers, of which the following is a specification.

This invention consists in combining with a suitable support arranged parallel with the length of the sheaf to be received a series of independent fingers normally projecting from said support at right angles thereto or parallel with the line of reception of the sheaf, each finger having a horizontal journal mounted in a bearing that permits it to swing or hinge in a horizontal plane, and suitable means whereby said fingers are simultaneously swung to the rear in said bearings and rocked on their journals so that they may close in toward the side of the harvester and drop their ends toward the stubble, all as will be understood from the ensuing description and accompanying drawings, in which—

Figure 1 is a top plan view of so much of a harvester-frame with a carrier embodying my invention applied thereto as is necessary to a full understanding of said invention. Fig. 2 is a rear elevation, partly in section, of said harvester-frame and carrier, showing also the elevator-frame and grain-deck. Fig. 3 is a top plan view, enlarged, of a portion of said harvester-frame and of my improved carrier. Fig. 4 is a vertical section on the same scale as the preceding through said carrier, taken on a line parallel with the advance of the team. Figs. 5, 6, 7, and 8 are enlarged details of said carrier, seen, respectively, from the stubble side, the rear, the front, and in top plan view; Fig. 9, an enlarged detail of the carrier-finger; and Figs. 10 and 11 represent modifications, respectively, in side elevation and top plan view.

A represents the rear platform-sill and A' the rear elevator-sill, B the front platform-sill and finger-bar, and B' the front elevator-sill, of a harvester, these sills, except the front platform-sill, being herein shown as formed of square pipes, as are also the cross-girts of the elevator-frame; but this form being selected only as an exponent of any suitable construction.

C is the main wheel, and D the outer girt, and E represents the grain-deck receiving from the elevator E' and having at its foot or discharge end a tail-board, E², as usual in modern grain-binders. Automatic binding mechanism will of course be located over and beneath this grain-deck; but I have not deemed it necessary to show any in the drawings.

F is a supporting-bar, frame-bar, or bracket, preferably bent into shape of a single piece of angle-iron and having front and rear arms, f, bolted to the outside girt of the harvester-frame, bringing the body part or bar proper parallel with said girt and beneath the tail of the binding-deck. To the top of this bar at regular intervals are secured horizontal bearings G, of quadrant form—that is, flaring from the inner side of the bar to its outer side—that the journals mounted therein may move from a line parallel with said bar to a line at right angles thereto and then be stopped. In these bearings are mounted the short horizontal journals h of the carrier-fingers H, which are bent or shouldered, as at h', at the end of the journals, to abut against the curved guide-rim h² of the bearings, and from the shoulders are carried some distance on a straight or nearly straight line downwardly and outwardly, then are curved gradually upwardly and outwardly, so as to form a cradle for the reception of the grain.

As thus far described, it is evident that each individual tooth may be swung to the rear upon the horizontal bearing, and at the same time, by means of its horizontal journal, rocked downwardly. To accomplish this object and simultaneously control and support all the teeth, vertical bearings I are provided upon the outer face of the supporting-bar slightly in advance of each horizontal bearing, these being conveniently formed by a bore through an overhanging ear, i, from a bracket, I', secured to the carrier frame-bar, which bracket is shown as integral with the horizontal bearing, but may be separate therefrom, if desired, and a similar bore beneath through the horizontal flange of said bar. Each vertical bearing receives the journal k of a bell-crank lever, K, the outer horizontal arm of which has at its end a short

pintle, k' , pivoted in ears from a sleeve or thimble, K' , which slides upon the inner straight portion of the adjacent carrier-finger to the rear, and serves to support said finger
 5 at an elevation determined by the position of the bell-crank arm. The inner horizontal arm of the bell-crank has also pintles or pivots k^2 , bent downwardly or depending therefrom to enter perforations in the operating-rod K^2 ,
 10 whereby, whenever this operating-bar is reciprocated to the front, the outer arms of the bell-crank levers are swung to the rear, pushing the carrier-fingers also simultaneously to the rear, while, owing to the pivotal points of
 15 these levers being eccentric to the points where the fingers are mounted upon the supporting-bar, the sleeves or thimbles will in this movement gradually slide up the straight incline upon the fingers, supporting them at
 20 a point nearer and nearer to the frame-bar, therefore permitting the horizontal journals to rock in their bearings and the outer ends of the fingers to drop farther and farther. Whenever, on the other hand, the operating-
 25 rod is pushed to the rear, the outer arms of the bell-crank levers will be carried to the front and the sleeves forcibly projected along the inclined parts of the fingers and toward their extreme ends, away from the frame-bar,
 30 thus rocking their journals again in the horizontal bearings and lifting the fingers more and more as they approach a direction at right angles to the frame-bar, until finally they are again in their normal receiving-po-
 35 sition and prevented from rocking downward or upward upon their pivots by the rigid connection formed with the sleeves and bell-cranks.

The movement of the carrier is controlled
 40 from the driver's seat by means of a long bell-crank, L , mounted in a bearing, l , at the forward end of the bar which supports the carrier and also at the other end in a bearing, l' , supported from the seat-plank of the ma-
 45 chine or over a suitable part of the frame.

The crank l^2 at that end adjacent to the carrier is connected by a link, L' , with the operating-rod pivoted to the inner arms of the carrier bell-cranks, while the crank l^3 at
 50 the other end receives one end of a foot-bar, L^2 , extending rearwardly over the seat-plank and journaled upon a wrist-pin from one arm, m , of a small bell-crank, M , the other arm, m' , of which extends to the rear alongside the
 55 inner edge of the seat-plank, and has a foot-piece, m^2 , which, when depressed, draws the bar to the rear and sets the carrier-fingers in position to receive from the binder, while a push by the foot upon the end of the bar
 60 carries it to the front and swings the fingers

back to shut toward each other and simultaneously drop, thereby discharging the load.

It will be understood that I do not intend to limit myself to the precise and specific construction herein described, since it is ob- 65
 vious that many changes may be introduced into the frame-work, and even into the controlling and operating mechanism, without departing from the spirit of my invention—as, for instance, I may substitute for the 70
 quadrant-bearing the swinging bearing N , carried upon the vertical spindle n , as shown in Figs. 10 and 11, and thereby obtain the same movement of the carrier-fingers.

I claim—

1. The combination, substantially as here- 75
 inbefore set forth, with the carrier-frame bar, of a series of curved fingers projecting transversely therefrom, horizontal journals upon the inner ends of said fingers set at an angle 80
 to the length thereof, bearings upon the frame-bar receiving said journals and adapted to permit them to swing in a horizontal direction, a series of bell-crank levers mounted one to the side of each of said fingers and having 85
 one arm connected therewith, and a common operating-rod for each of said levers, whereby the fingers may be simultaneously swung to the rear and rocked upon their journals to drop their outer ends. 90

2. The combination, substantially as here-
 inbefore set forth, with the carrier-frame bar, of a series of curved fingers having an inner straight portion and horizontal journals at their inner ends set at an angle to the length 95
 of said fingers, bearings upon said frame-bar receiving said journals and adapted to permit them to swing horizontally therein, a series of bell-crank levers mounted in bearings one in advance of each of said fingers, a sleeve 100
 playing upon the inner straight portion of each finger and pivoted to the outer arm of each lever, and an operating-rod connected to the inner arms of said levers.

3. The combination, substantially as here- 105
 inbefore set forth, of the carrier-frame bar, the horizontal quadrant-bearings mounted thereon, the carrier-fingers having horizontal journals playing in said bearings and rocking therein, the vertical bearings on said frame- 110
 bar, the bell-crank levers mounted therein, the sleeves upon the fingers pivoted to the outer arms of said levers, the operating-rod connected to the inner arms of said levers, and a lever upon the harvester, whereby said 115
 rod is controlled.

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Witnesses:

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