

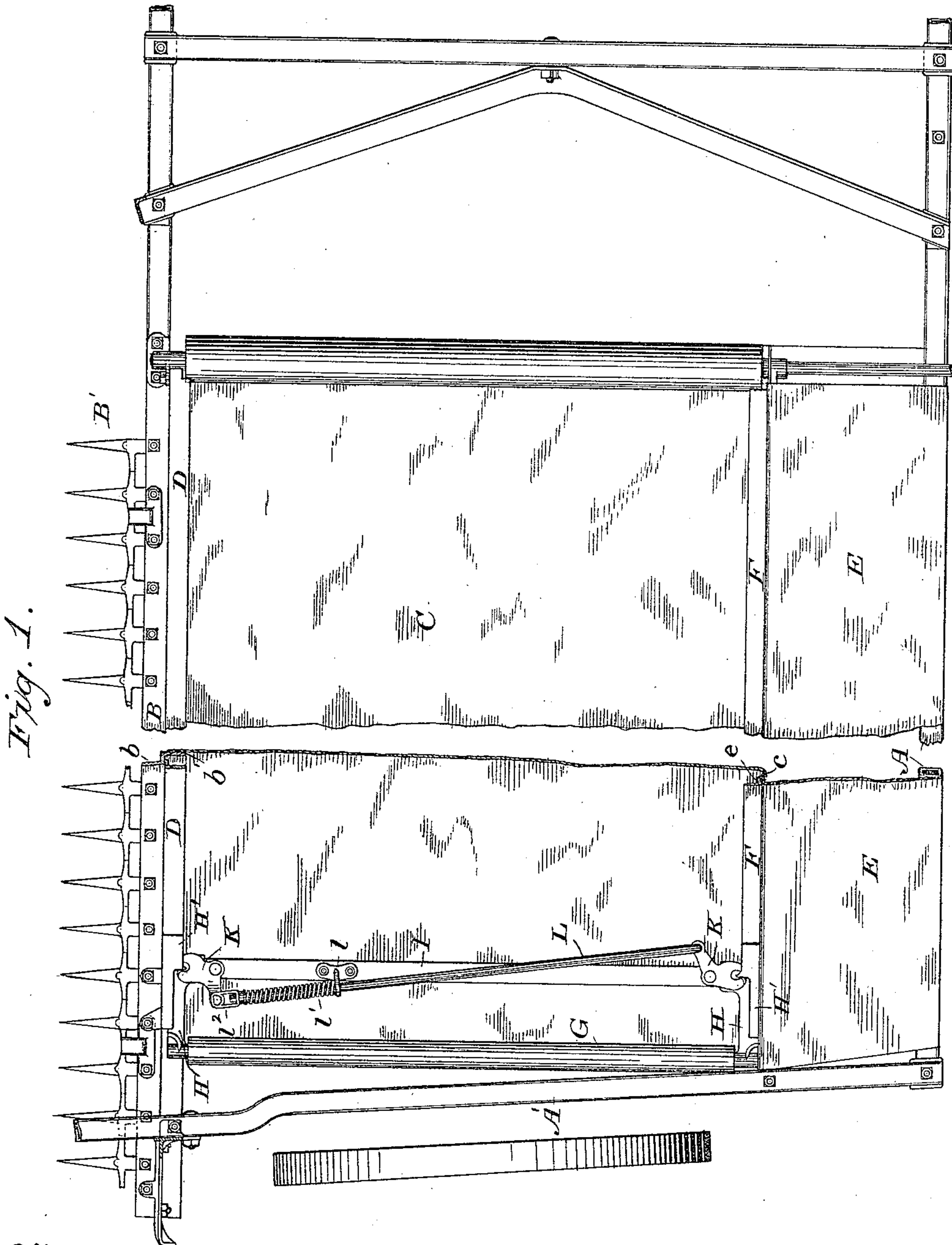
(No Model.)

2 Sheets—Sheet 1.

H. E. PRIDMORE.  
HARVESTER.

No. 438,277.

Patented Oct. 14, 1890.



Witnesses

Wm. A. Skirry  
Chas. E. Gorton

Inventor

Henry E. Pridmore

By his Attorneys

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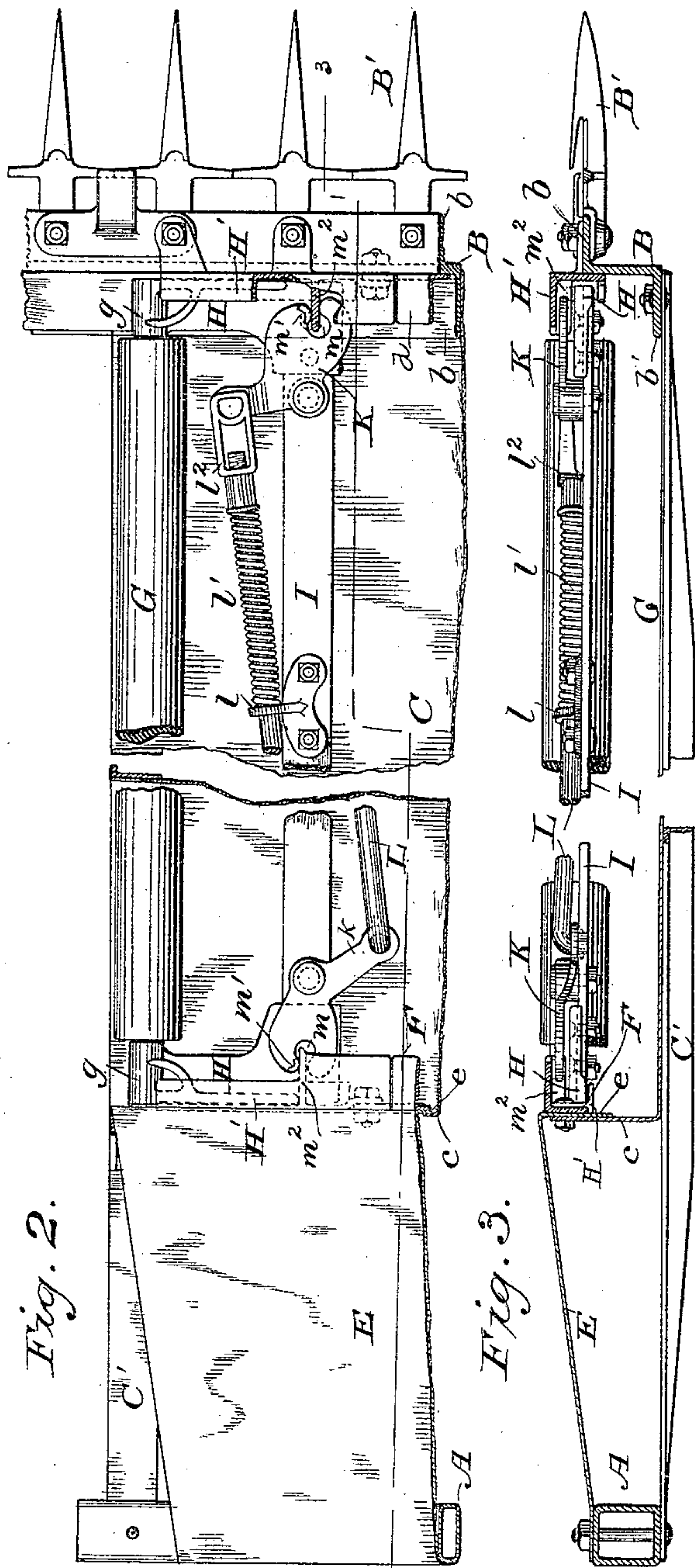
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H. E. PRIDMORE.  
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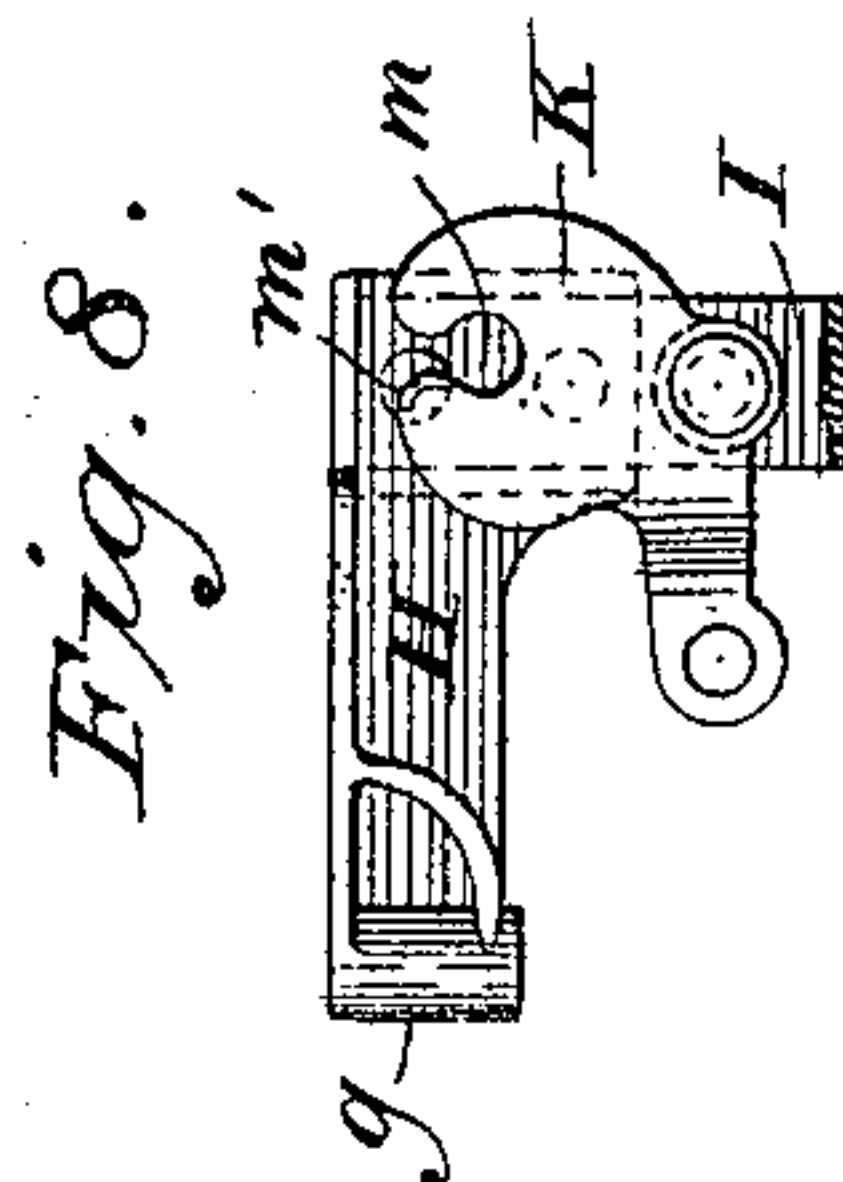
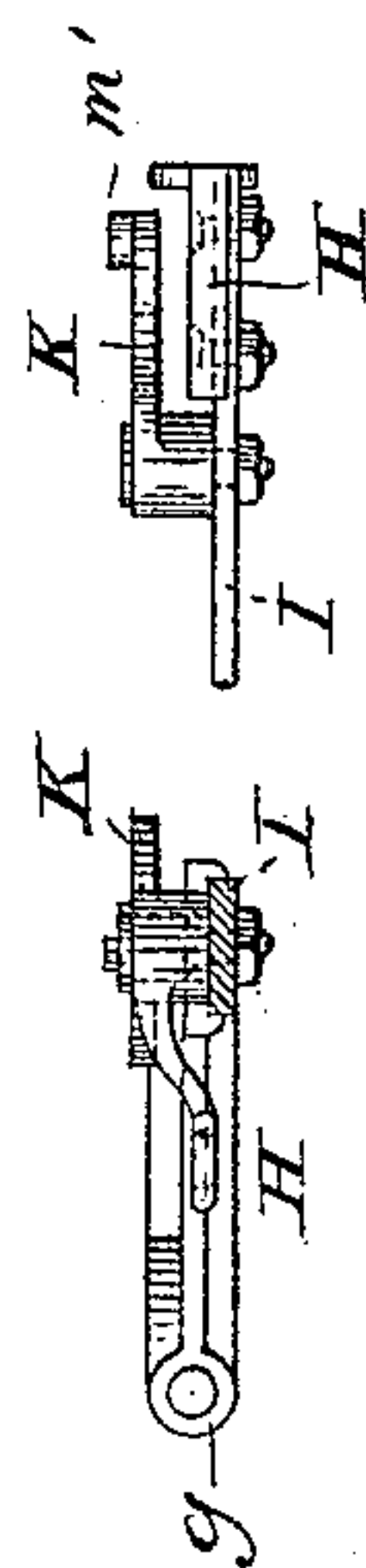
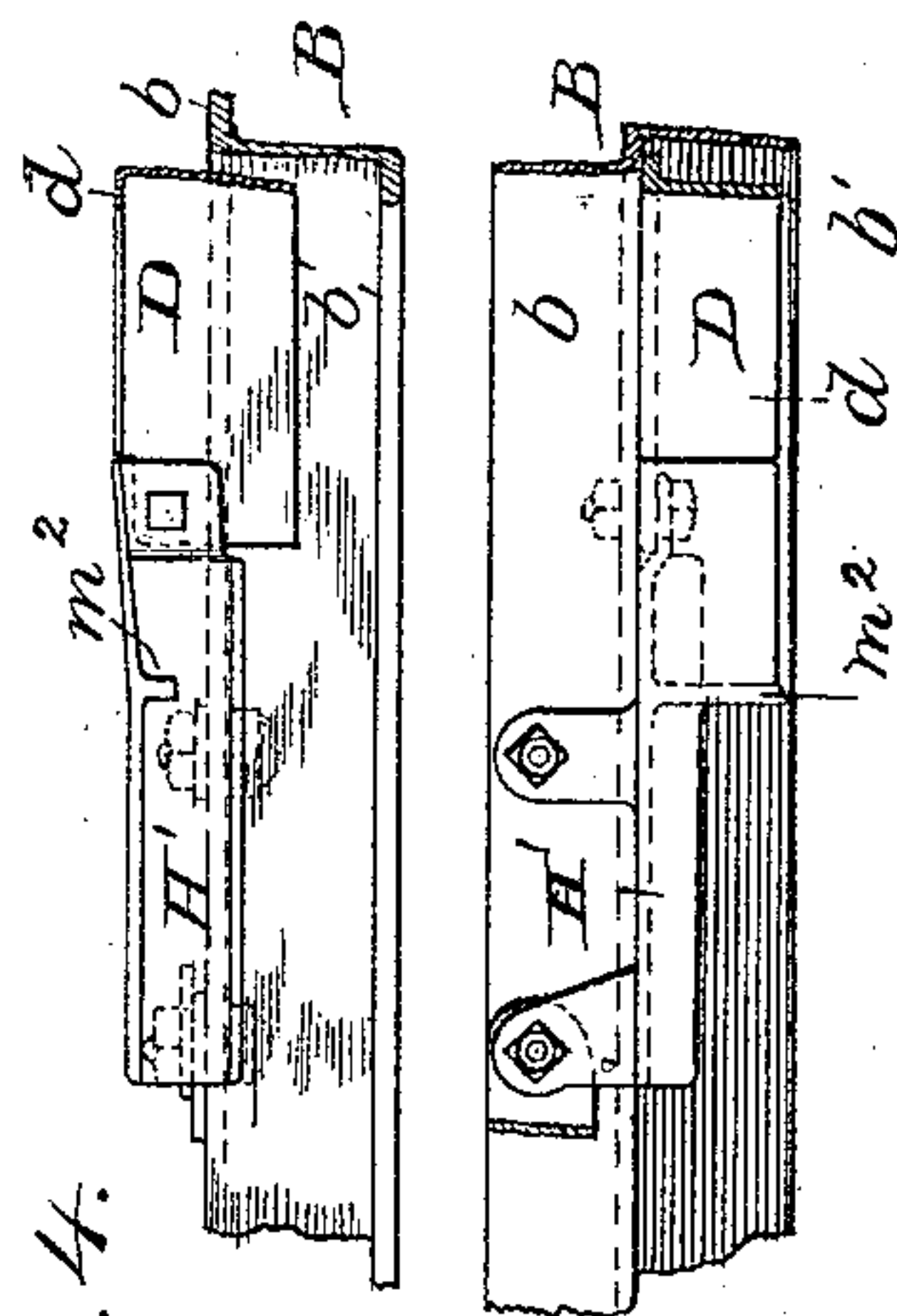
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Witnesses

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# UNITED STATES PATENT OFFICE.

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

## HARVESTER.

SPECIFICATION forming part of Letters Patent No. 438,277, dated October 14, 1890.

Application filed October 4, 1888. Serial No. 287,164. (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 Harvesters, of which the following is a specification.

This invention relates partly to an apron-tightener for the platform or other conveyer and partly to the construction of the platform in a peculiar manner of sheet metal, for the purposes of said conveyer and for general lightness and utility, as will appear from the ensuing description.

In the drawings, Figure 1 is a plan view of a platform constructed according to my invention, with the conveyer removed to expose the tightener, whereby the idle-drum is kept away from the active drum. Fig. 2 is an enlarged detail of the apron-tightener and of a portion of the platform itself near the divider end. Fig. 3 is a vertical section through said platform on the same scale as the preceding figure, as seen from the stubble side adjacent to the tightener. Figs. 4 and 5 are, respectively, enlarged details viewed from the rear and from the top, showing particularly the guide for the forward bearing of the idle-drum, and serving also to explain the rear bearing; and Figs. 6, 7, and 8, respectively, enlarged details, in side elevation, end elevation, and top plan view of parts of the belt-tightener.

In constructing my platform, I prefer to form the rear sill A, the divider-girt A', and other of the beams of square pipe, while the finger-bar B is formed of angle-iron with a forwardly-extending upper flange b, to which the guide-fingers B' are bolted, and a rearwardly-extending bottom flange b', which receives and supports the front edge of a sheet-metal bottoming C, the rear edge of which is turned up vertically, as at c, and then secured in a manner and for a purpose presently explained, and the divider-edge of which does not come quite up to the divider-girt, but stops beneath the idle-roller of the conveyer-apron, being sustained by the angle-iron beam C', extending from the finger-bar to the rear sill.

At and along the rear or inside vertical face of the finger-bar, and running from a point

close to one drum to a point adjacent to the other, is arranged and secured an angle-iron bar D, having its upper flange d horizontal somewhat above the top flange of the finger-bar and extending rearwardly, said bar serving thereby not only to strengthen the finger-bar, but as a guide or support for the front edge of the conveyer-apron. This apron in the present instance does not extend entirely to the rear of the platform, but stops a distance short thereof, and just in rear of this point the sheet-metal bottoming is turned up vertically, as above stated, while a sheet-metal extension E, secured to and sloping upwardly and forwardly from the rear sill, is at this point turned down vertically to form a depending flange e, the upper part of which serves as a lateral guard to the rear edge of the apron, while the lower part is bolted to the upstanding flange from the sheet-metal bottoming. Along the line where the bottoming and extension flanges are united, and on the inside and forward face thereof, and it may be by the same bolts, is secured an angle iron-bar F of light metal, the horizontal flange of which is at the top and serves to support and guide the rear edge of the platform-apron, and also to strengthen the union of the two flanges and prevent sagging.

G is the idle-roller at the divider end of the platform, having its gudgeons mounted in bearings g of sliding blocks H, carried in guides H', having suitable ways and attached, respectively, to the rear of the finger-bar and to the front of the vertical flange of the bottoming or along the point where it is united to the sheet-metal extension. These sliding blocks are or may be rigidly connected at their inner ends by a bar I, parallel with the drum, and at each end of this bar, but in a reverse position—that is to say, the shank of one being on one side of the bar and the shank of the other on the opposite side—are pivoted elbow-levers K, having said shanks k, united by an oblique rod or link L, passing through an eye l, on the connecting-bar, and receiving on one side of said eye a coiled spring l' whereby a constant force is exerted on the levers. The connection of the rod with one of the levers is made adjustable by a turn-buckle or other suitable device, as at



7<sup>2</sup>, in order that the spring may be compressed and greater force exerted on the levers, and that their operating position may be somewhat altered. At their active ends the levers  
 5 are notched, as at  $m$ , and are preferably thickened, as at  $m'$ , on the wear side, and catch over lugs  $m^2$  from the guideways, against which lugs they act with a force determined by the tension of the spring, so that by their  
 10 action through the connecting-bar they will tend to force the sliding blocks and apron, together with the drum, outward toward the grainward end of the machine, and thereby tighten the apron.

15 I do not intend to be limited herein to the precise construction and arrangement of the apron-tightener, since the position of the elbow-levers may be altered, their spring-connection with each other or with the bar may  
 20 be modified to suit such alteration of arrangement, or as may be otherwise found desirable, and other changes may be introduced which will be obvious to a skilled workman; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

25 1. The combination, substantially as hereinbefore set forth, of the angle-iron finger-bar having a rearwardly-extending lower flange, the sheet-metal bottoming secured to  
 30 said lower flange and turned up vertically at its rear, and the sheet-metal extension having a vertically-depending flange at its front bolted to said flange from the bottoming and at its rear bolted to the rear sill.

35 2. The combination, substantially as hereinbefore set forth, of the angle-iron finger-bar, the sheet-metal bottoming bolted to the lower rearwardly-extending flange thereof, and at its rear turned up vertically, the sheet-  
 40 metal extension having a vertically-depending flange bolted to the bottoming flange, and at its rear connected to the rear sill, and the angle-iron beam connecting the finger-bar and rear sill beneath the divider-edge of the bot-  
 45 toming to support the latter.

50 3. The combination, substantially as hereinbefore set forth, of the angle-iron finger-bar, the sheet-metal bottoming bolted thereto and having a vertically-upstanding flange at its rear, the sheet-metal extension with its depending flange connecting said bottoming and the rear sill, and the angle-iron apron-

guides bolted, respectively, to the rear face of the finger-bar and to the depending and up-  
 standing flanges of the sheet-metal extension 55 and bottoming along the line of their union.

4. The combination, substantially as hereinbefore set forth, of the idle-drum, the sliding blocks in which it is mounted, the bar connecting said sliding blocks at their inner ends, 60 the guideways for the blocks, the lugs in said guideways, the elbow-levers engaging with said lugs at each end of said connecting-bar, and a spring acting upon the shanks of said levers. 65

5. The combination, substantially as hereinbefore set forth, of the idle-drum, the sliding blocks in which it is mounted, the bar connecting said sliding blocks at their inner ends, the guideways for the blocks, the lugs in said 70 guideways, the elbow-levers engaging with said lugs and pivoted reversely at each end of said connecting-bar, the diagonal link connecting the shanks of said levers, the eye upon the connecting-bar, and the coiled spring 75 seated against said eye and against a suitable rest on the link, whereby the levers are caused to press the idle-drum away from the driving-drum.

6. The combination, substantially as hereinbefore set forth, of the idle-drum, the sliding blocks in which it is mounted, the bar connecting the inner ends of said sliding blocks, the guideways in which the blocks slide, the lugs in said guideways, the reversely-set el- 80 bow-levers pivoted to the connecting-bar and engaging said lugs, and the link connecting the shanks of said levers and passing through the eye on said bar, the coiled spring on said link pressing it away from said eye, and the 90 adjusting device connecting said rod with one of the levers.

7. The combination, substantially as hereinbefore set forth, with the angle-iron finger-bar, and with the apron-drums, of the angle- 95 iron apron-guide arranged along and above the rear face of said finger-bar, between the drums, and with its upper horizontal flange set to the rear to form a support for the forward edge of the apron.

HENRY E. PRIDMORE.

Witnesses:

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