L. KITTINGER & J. K. KURTZ. 2 Sheets--Sheet 1.

Stacker-Attachment for Thrashers.

No. 160,204. Patented Feb. 23, 1875.

Fig. 1.

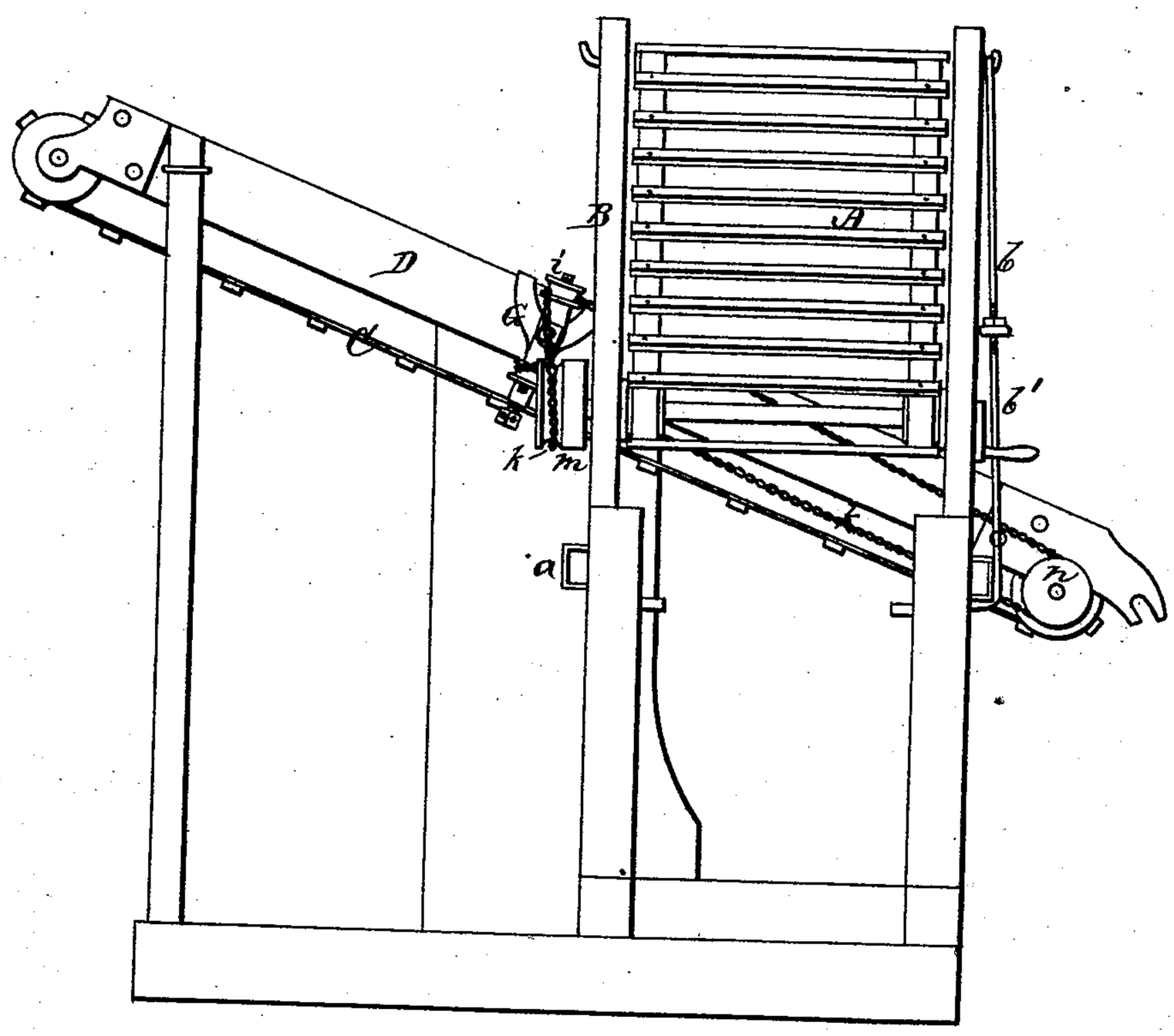


Fig. 4.

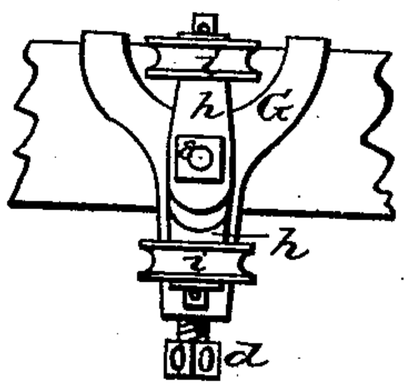
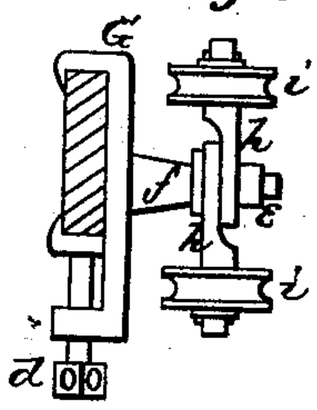


Fig. 5.



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2 Sheets--Sheet 2.

L. KITTINGER & J. K. KURTZ.

Stacker-Attachment for Thrashers.

No. 160,204. Patented Feb. 23, 1875.

Fig. 3.

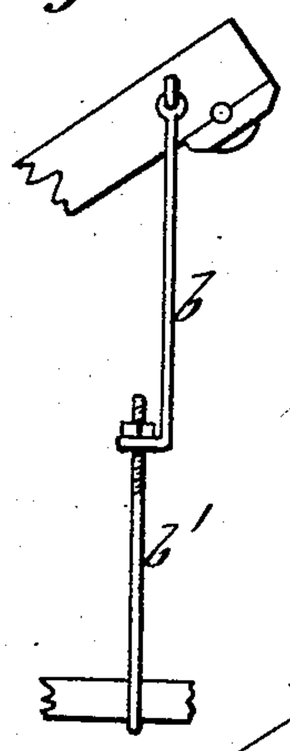


Fig. 2.

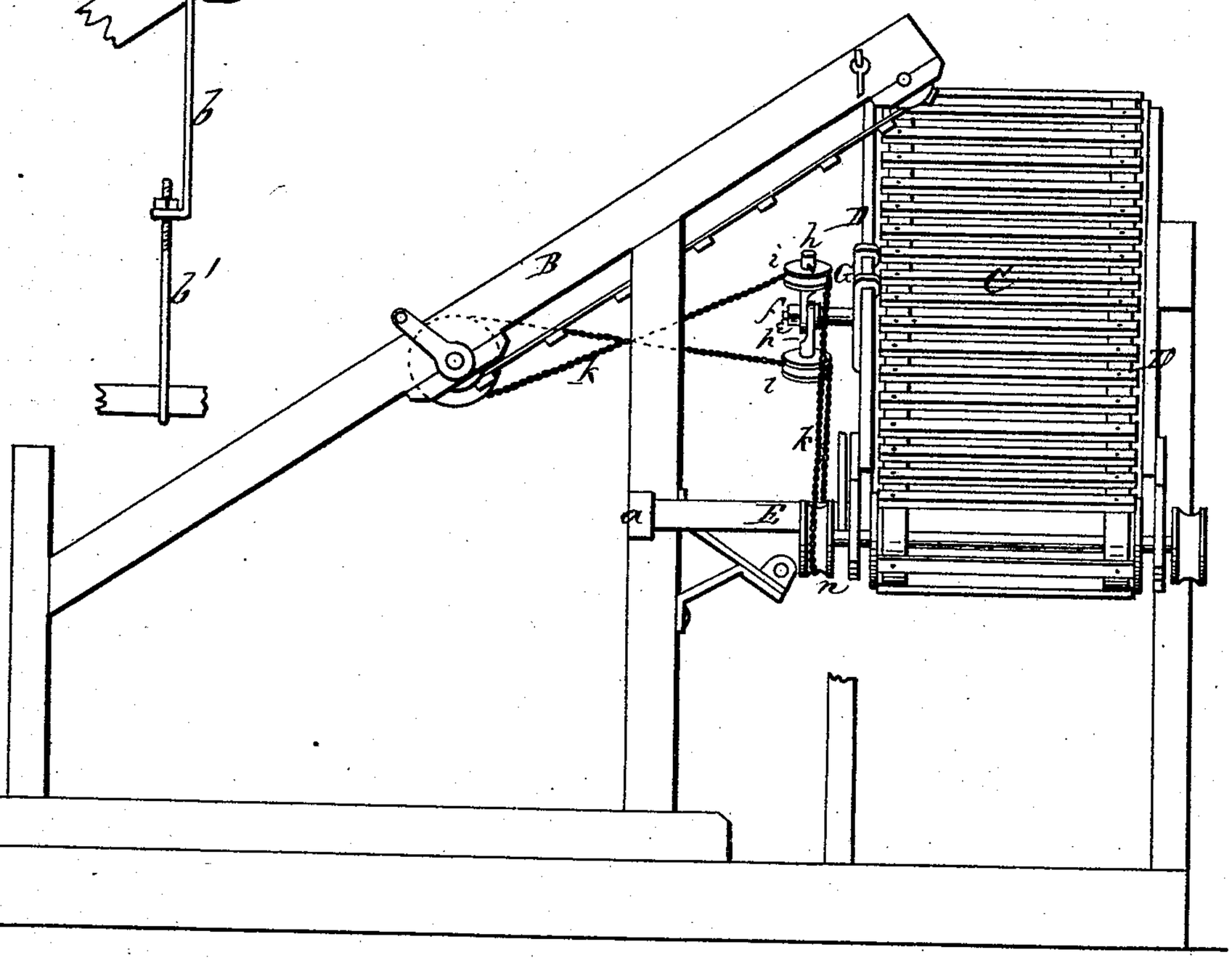


Fig. 6.

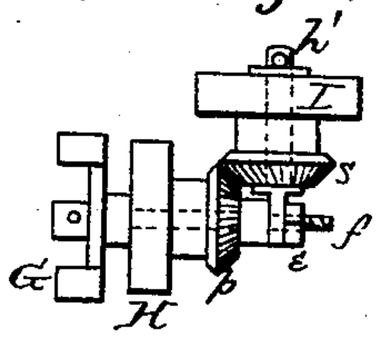
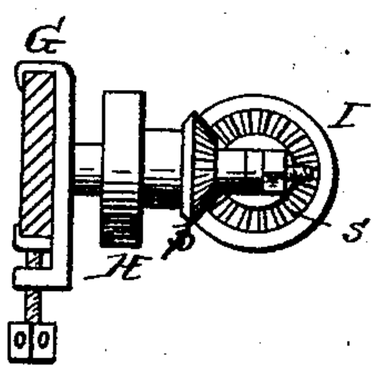


Fig. 7.



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UNITED STATES PATENT OFFICE.

LEVI KITTINGER AND JOHN K. KURTZ, OF MASSILLON, OHIO.

IMPROVEMENT IN STACKER ATTACHMENTS FOR THRASHING-MACHINES.

Specification forming part of Letters Patent No. **160,204**, dated February 23, 1875; application filed January 19, 1875.

To all whom it may concern:

Be it known that we, LEVI KITTINGER and JOHN K. KURTZ, of Massillon, in the county of Stark and in the State of Ohio, have invented certain new and useful Improvements in Thrashing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

Our invention relates to stackers used with thrashing-machines, for carrying the straw into the mow; and the nature of our invention consists in the devices for supporting the stacker, and in the devices for running the chain or belt from the thrashing-machine to the stacker, so that the stacker may be adjusted at any height desired, and so as to carry the straw to the right or left, or forward, as desired, all as hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figures 1 and 2 are side views of the stacker and elevator or straw-carrier of a thrashing-machine, showing the application of our invention. Fig. 3 is a view of the device for supporting the arm that holds one end of the stacker. Figs. 4 and 5 are views of the pulley devices when a chain is used to run the stacker, and Figs. 6 and 7 show modification thereof when using a belt.

A represents the usual straw carrier or elevator of a thrashing-machine, formed of slats or cleats attached to endless belts, which pass around pulleys on shafts in the frame B of the thrashing-machine. The stacker C is constructed in the same manner of slats attached to endless belts, which pass around pulleys on shafts having their bearings in the ends of a frame, D. On the sides of the machine-frame are metal loops *a*, so that an arm, E, may be inserted therein, and project forward horizontally to support the lower end of the stacker. The arm E is supported by an adjustable iron hanger consisting of two rods, *b b'*, one having its end bent, through which the end of the other rod passes, and then adjusted by a nut thereon, as shown in Fig. 3. The upper end of the stacker is generally laid on railing, or a strip of board nailed to a post. If none of these can be had, it is supported with props, as shown in the drawing. To the inner side rail of the stacker-frame D is attached a clamp, G, by means of a set-screw, *d*. From this clamp projects a stud, *f*, upon which are placed two arms, *h h*, fastened by means of a nut, *e*, each arm provided with a flanged pulley, *i*. The stacker is run by a chain, *k*, passing around a pulley, *m*, on the lower pulley-shaft of the straw-carrier A, then around the two pulleys *i i*, and around a pulley, *n*, on the lower pulley-shaft of the stacker.

When it is necessary to move or adjust the stacker in a more or less inclined position the flanged or grooved pulleys *i* must be turned at different angles with relation to each other, and this can easily be done by loosening the nut *e*, as the pulleys are placed upon separate arms; otherwise the chain would run off.

In place of a chain and grooved pulleys, belts and plain pulleys may be used for running the stacker. In that case bevel-gears are used, as shown in Figs. 6 and 7.

On the stud *f* is placed an ordinary plain pulley, H, having an elongated hub, with bevel-gear *p* formed on its outer end. An arm, *h'*, is then fastened on the end of the stud, and on said arm is placed another smooth pulley, I, with bevel-gear *s* on the end of its elongated hub, which gears mesh with each other.

The belt from the pulley H to the stacker-pulley *n* is always in the same position, while the pulley I must be changed to bring the belt from the straw-carrier pulley *m* on a straight line.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the loops *a*, arm E, and adjustable hanger *b b'*, for supporting the lower end of the stacker, substantially as and for the purposes herein set forth.

2. The flanged or grooved pulleys *i i*, placed upon separate arms *h h*, independently adjustable on the clamp-stud *f*, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 21st day of December, 1874.

LEVI KITTINGER.
JOHN K. KURTZ.

Witnesses:
BENJAMIN RASER,
THOMAS BLACKBURN.