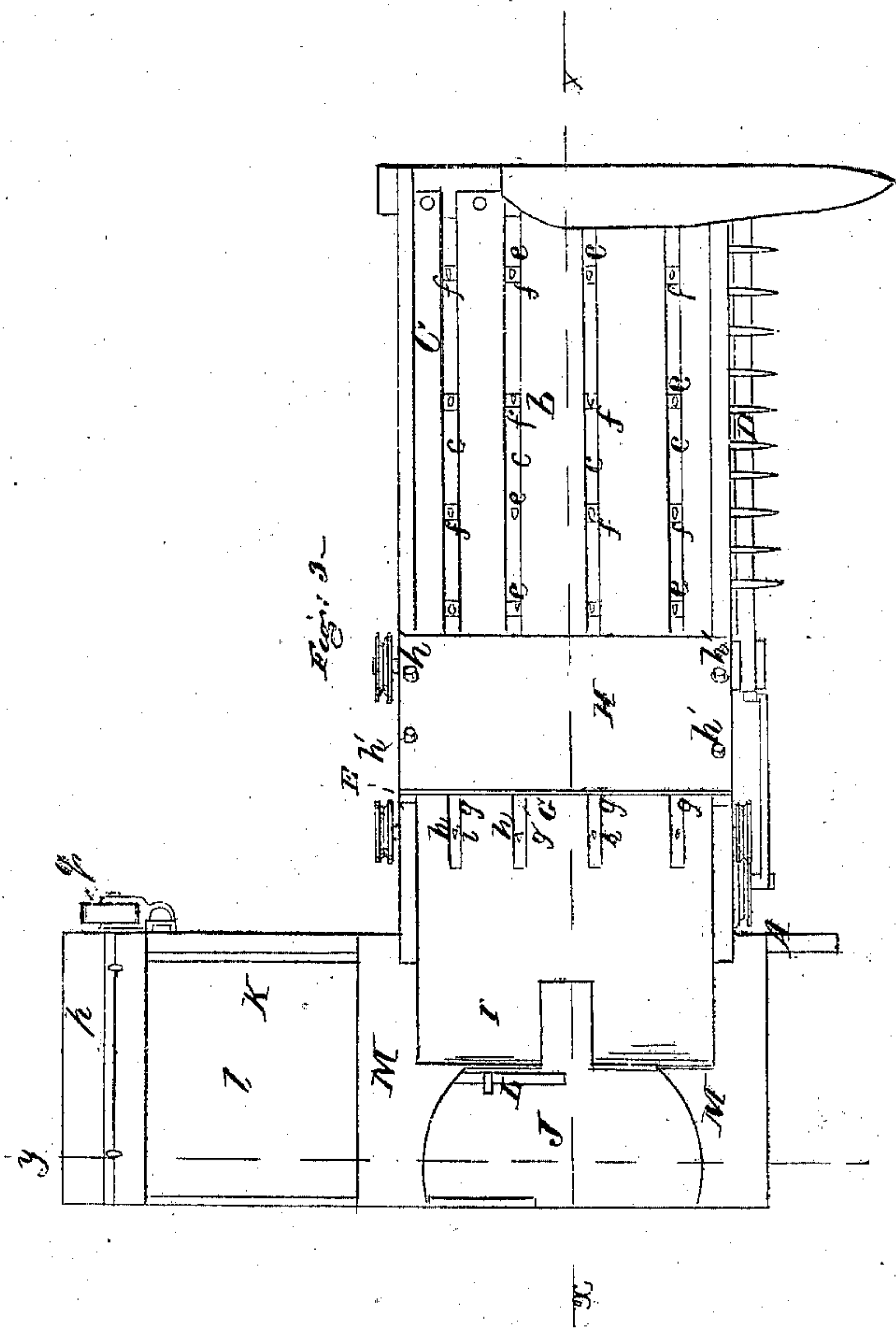
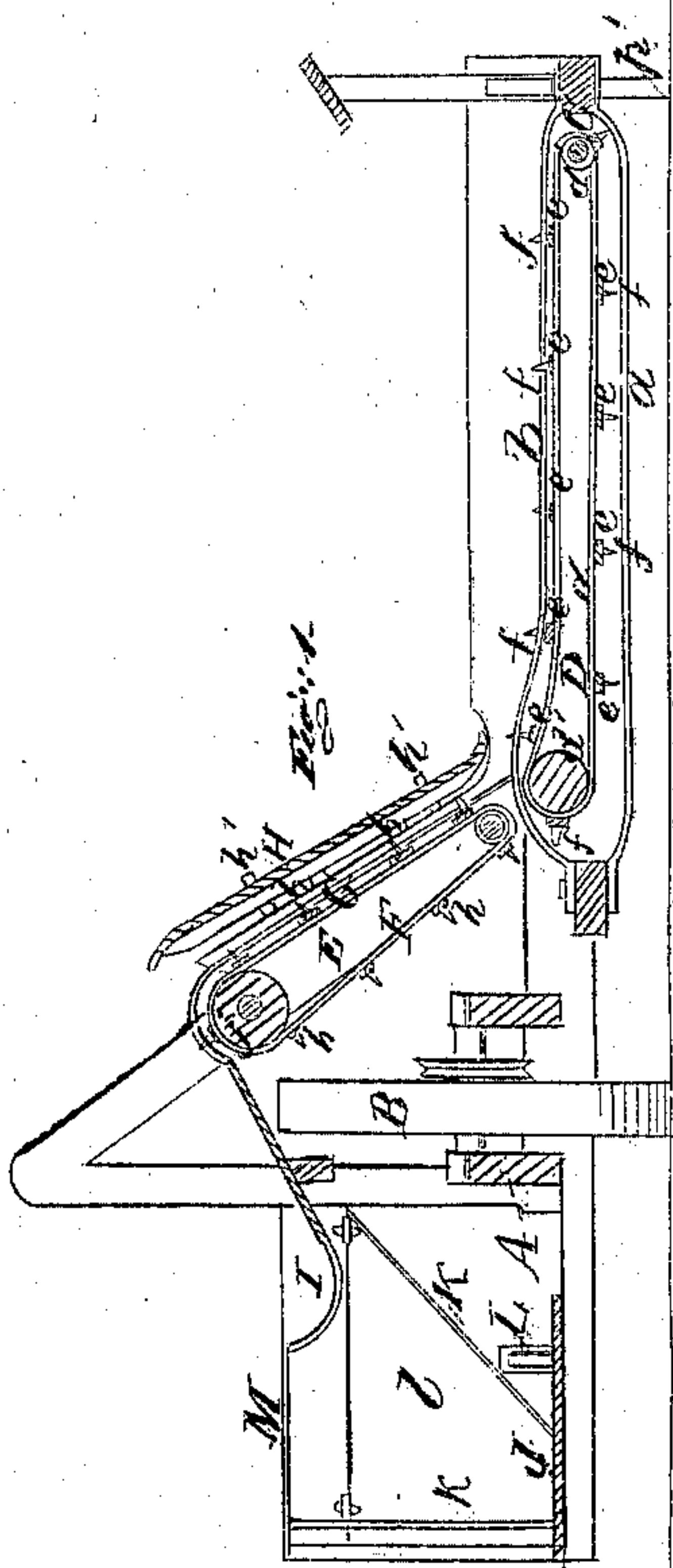
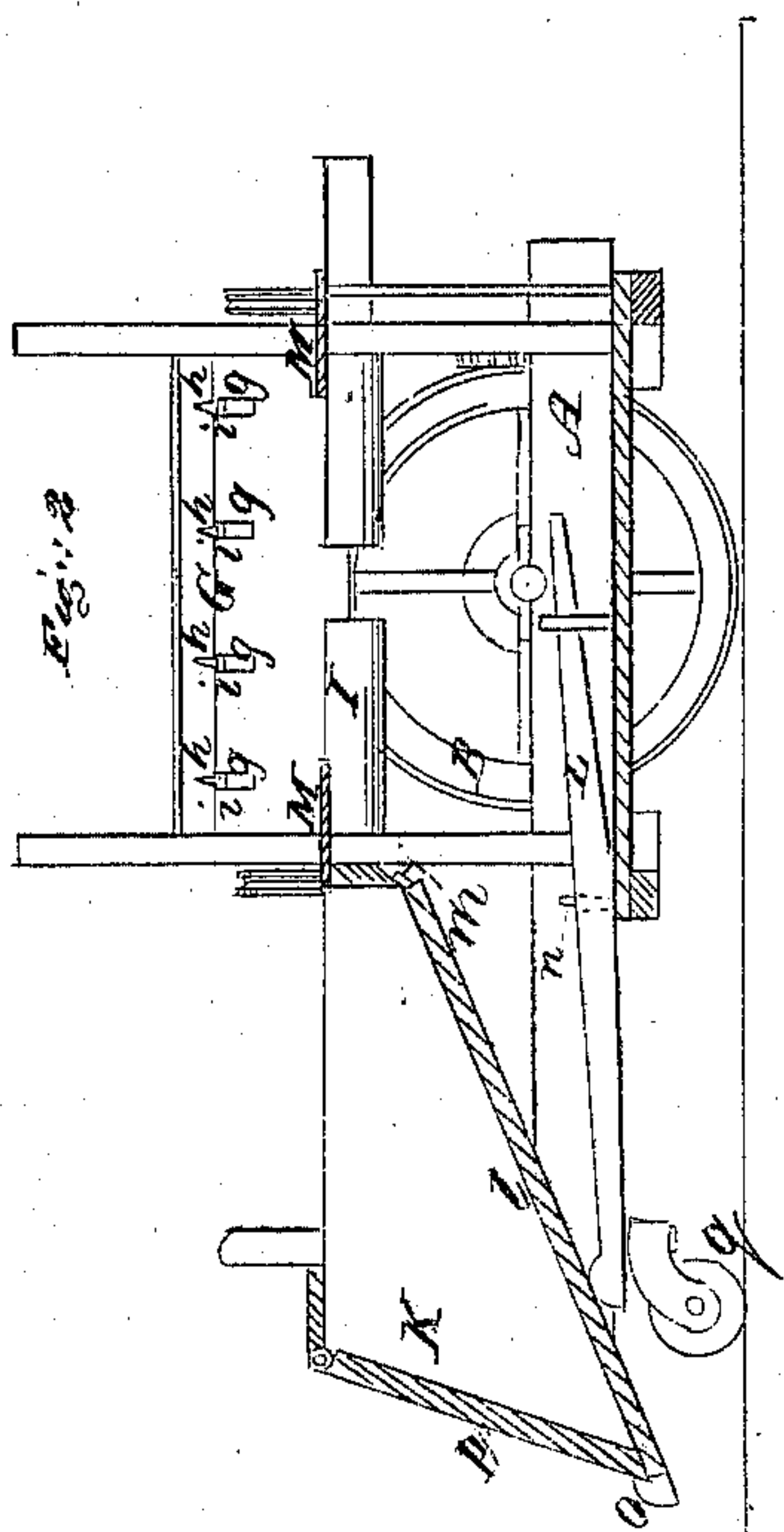


C. Ward. W.W. Marsh,
Harvester Reel.

No. 21207

Patented Aug. 17, 1858.



UNITED STATES PATENT OFFICE.

C. W. MARSH AND W. W. MARSH, OF SHABBONA, ILLINOIS.

IMPROVEMENT IN REAPING-MACHINES.

Specification forming part of Letters Patent No. 21,207, dated August 17, 1858.

To all whom it may concern:

Be it known that we, C. W. MARSH and W. W. MARSH, of Shabbona, in the county of De Kalb and State of Illinois, have invented a new and useful Improvement in Reaping-Machines; and we 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, in which—

Figure 1 is a longitudinal vertical section of our invention, taken in the line *xx*, Fig. 3. Fig. 2 is a transverse vertical section of the same, taken in the line *yy*, Fig. 3. Fig. 3 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improved arrangement of parts applied to a reaping-machine for the purpose of gathering the grain as it is cut into proper-sized gavels, and enabling attendants to bind the same with facility into sheaves, and allow the sheaves to be discharged from the machine in piles for the convenience of gathering or harvesting them.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents the main frame of a reaper. B is the driving-wheel, and C is the platform attached to the main frame. At the front edge of the platform C a reciprocating sickle, D, is placed. This sickle may be arranged in the usual or in any proper way and be operated from the driving-wheel B by any suitable driving device.

The platform C is constructed of a rectangular frame, having a close bottom, *a*, and a top, *b*, which is slotted or grooved longitudinally, as shown at *c*, Fig. 3, said grooves extending the whole length of the platform. (See Fig. 3.)

On the platform C, between the bottom *a* and top *b*, an endless band of rakes, D, is placed. This endless band of rakes is formed of straps *d d*, which pass around rollers *d' d'* on the platform, one at each end, said straps having bars *e* attached to them, the bars being provided with teeth *f*, which project through the slots or grooves *c* as the bars pass over the upper parts of the rollers and traverse the distance between them.

To the inner side of the platform C an inclined frame, E, is attached, having an endless

band of rakes, F, placed within it. The band of rakes F is precisely similar to the band of rakes D, the former having the same inclination as the frame E. The frame E has a plate or board, G, fitted in it, grooved to correspond with the top *b* of the platform C, as shown at *g*, and the teeth *h* of the bars *i* of the band F project through the grooves *g*.

H is a board or plate, which is fitted over the inclined frame E and on pins *h'*, the board or plate being allowed to slide on said pins. (See more particularly Fig. 1.) The plate or board H extends over the upper roller, *j*, of the band F, and terminates in a box or receptacle, I, the length of which may be about equal, or it may slightly exceed the width of platform C and frame E. The box or receptacle I projects over the side of the main frame A, and is partially supported by braces *k* from a platform, J, which is at the outer side of the main frame A, and in the same plane with the platform C. The platform J is the binders' platform for the attendants. Two or more stand on said platform and bind the grain, as will be presently described, the distance between the box or receptacle I and the platform J being such that the box or receptacle will be at a convenient height for the manual operation of binding.

To the back end of the platform J and the parts connected therewith a box, K, is attached. This box has an inclined bottom, *l*, which is hinged at its inner and elevated end, as shown at *m*. The bottom *l* rests on a lever, L, which has its fulcrum at *n* at the back end of the platform J, and the outer end of the bottom *l* is provided with a shoulder, *o*, which, when the inner end of lever L is depressed, catches over the lower end of the end piece, *p*, of the box K, said end piece being hinged at its upper end.

At each side of the box or receptacle I a small platform, M, is placed. (See Fig. 3.) The outer end of platform C is supported by a wheel, *p'*, and the back end of platform J is supported by a caster-wheel, *q*.

The operation is as follows: As the machine is drawn along the cut grain falls, as usual, on the platform, the ordinary reel being used, and the two endless bands of rakes are operated from the driving-wheel B by any proper means. The cut grain is carried by the band D to the bar E, and the latter carries it up be-

bind the plate or board H into the box I, the plate or board protecting the grain from the wind, and at the same time keeping it on the teeth *h* and yielding or giving, as circumstances may require. Two or more attendants stand on the platform J and bind the grain into sheaves, the grain being encompassed by the bands in the box I and removed therefrom and the bands twisted on the platforms M M. The sheaves are thrown into the box K, and when it contains a certain number one of the operators, who keeps the end of lever L depressed by his foot, removes his foot therefrom, and the bottom *l* and end piece, *p*, open and the sheaves are discharged by their own gravity in a pile on the ground, thereby facilitating the gathering or harvesting of the same.

We are aware that endless bands of rakes

have been previously used for conveying cut grain from the platform of reapers, and we do not claim separately and broadly such device; but

We claim as new and desire to secure by Letters Patent—

The box or receptacle I, platforms J M M, and box K, provided with the hinged or adjustable bottom and end piece, *l p*, when the above parts are used in connection with the endless bands of rakes D E, and arranged relatively with each other substantially as and for the purpose specified.

C. W. MARSH.
W. W. MARSH.

Witnesses:

R. B. WARREN,
SAMUEL MARSH.