L. B. HAMILTON.

Corn Harvester.

No. 72,848.

Patented Dec. 31, 1867.

Fig. 1

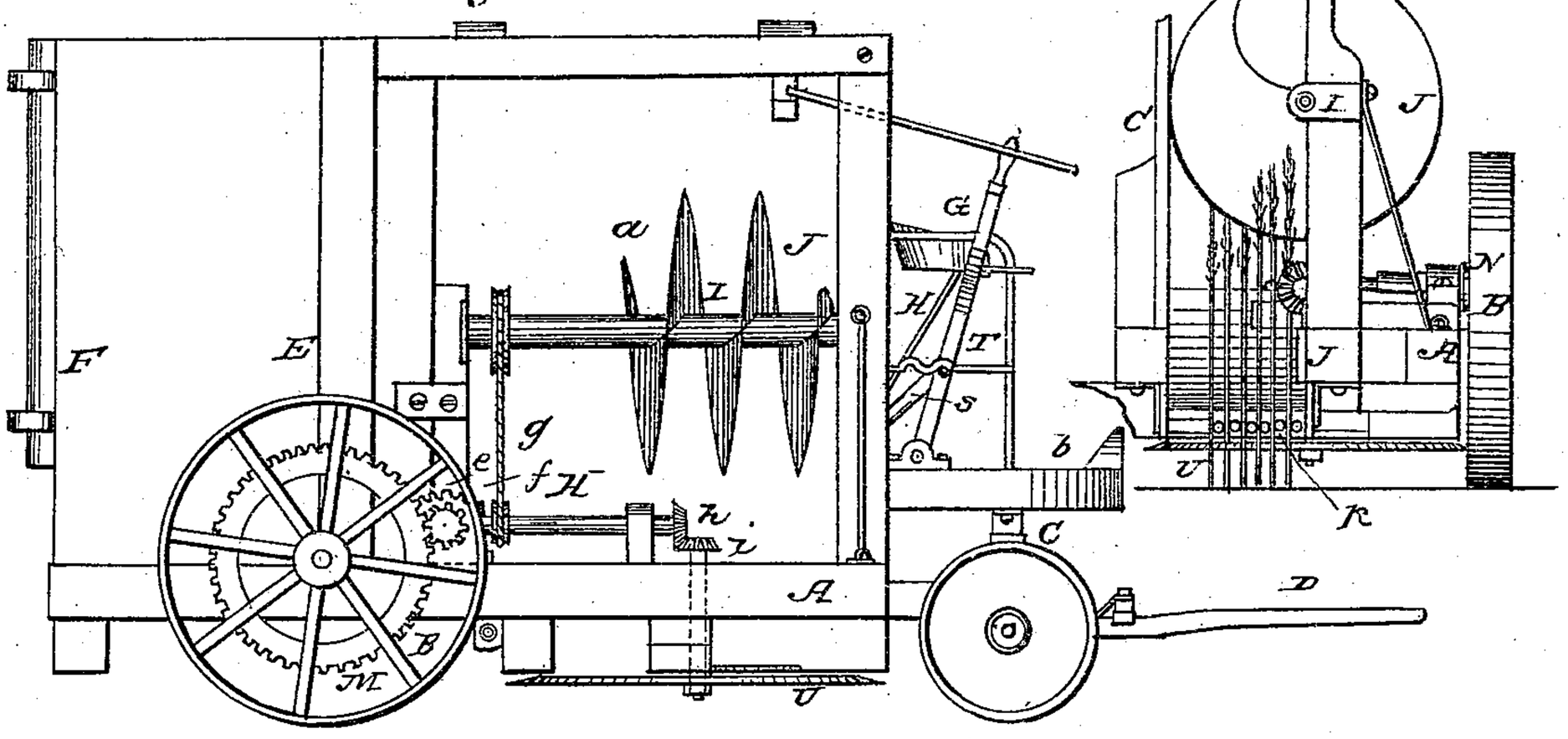


Fig. 3

Fig. 2

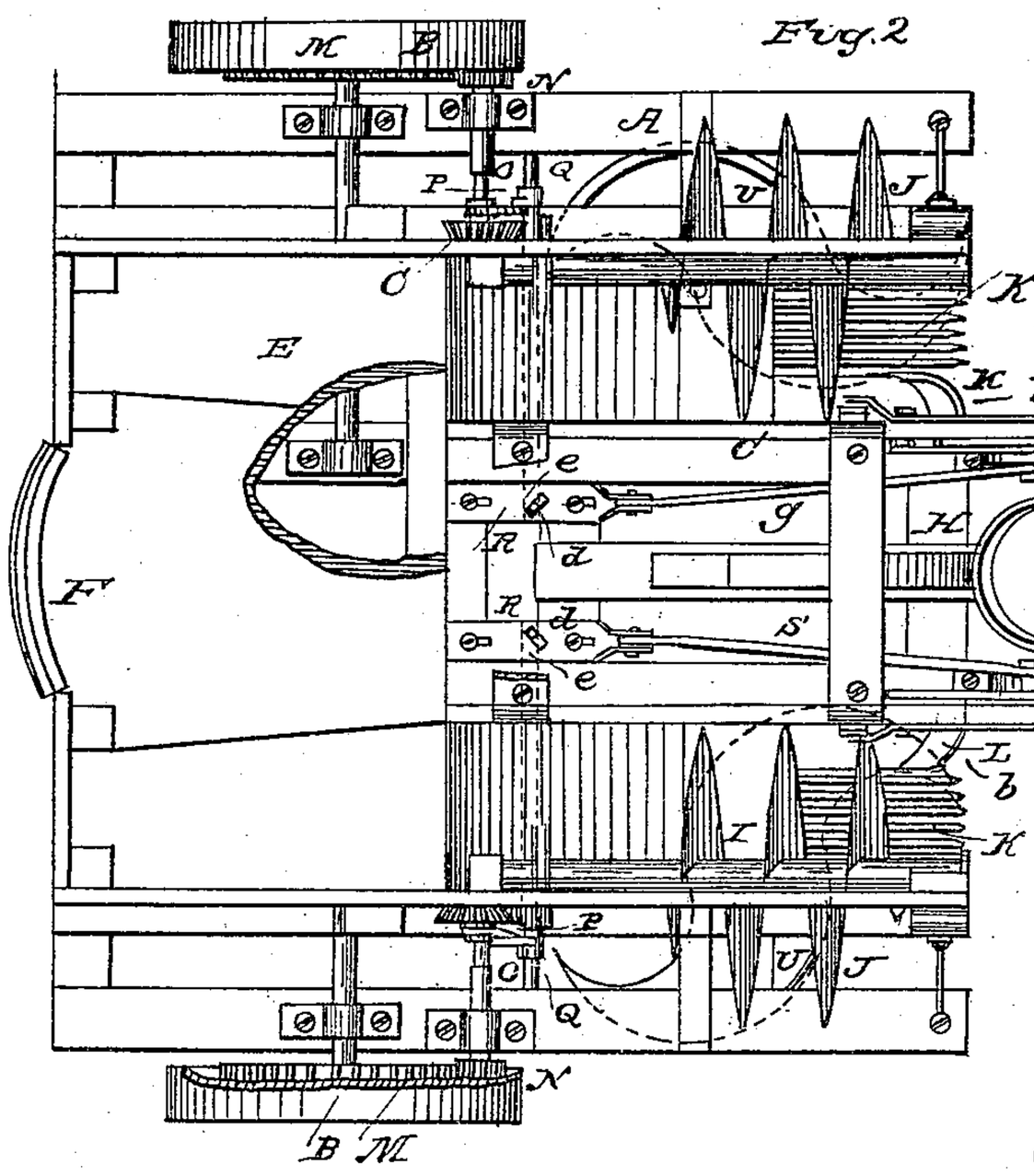
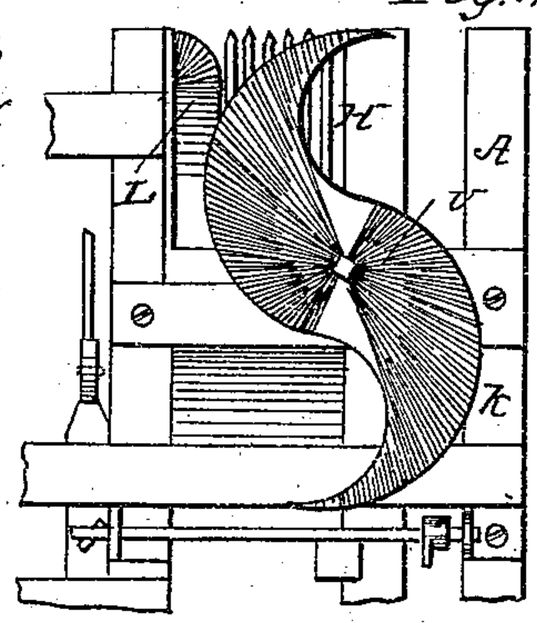


Fig. 4



WITNESSES

J. A. Servee

Wm. Treurn

INVENTOR

L. B. Hamilton

Per Munn & Co.

Attys.

UNITED STATES PATENT OFFICE.

L. B. HAMILTON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN CORN-HARVESTERS.

Specification forming part of Letters Patent No. **72,848**, dated December 31, 1867.

To all whom it may concern:

Be it known that I, L. B. HAMILTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Corn-Harvester; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a plan or top view of the same; Fig. 3, a front view of a portion of the same, and Fig. 4 an inverted plan or bottom view of a portion of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved machine for harvesting Indian corn—to wit, cutting the standing stalks, one or more rows simultaneously, and gathering and conveying the same, as cut, to the rear part of the machine, where they may be bound, if desired, or thrown in proper-sized gavels or bundles upon the ground, convenient for shocking.

The invention consists in the combination and arrangement of the **S**-shaped cutters, spiral conveyers, the fingers and body having a box, and also in the combination of the cylindrical pointed fingers with the rotary **S**-shaped cutters, as will be hereinafter more fully described.

A represents a horizontal framing or bed, the rear part of which is supported by two wheels, B B, and the front part supported by a truck, C, attached to the framing or bed by a ring-bolt, and provided with thills D, as shown in Figs. 1 and 2. On this framing or bed A there is placed a body, E, of rectangular form, having a door, F, at its rear, and an opening, *a*, in each side. A box, C, is inserted centrally in the front part of the body E, the sides of which are parallel with the sides of the body, and are opposite the openings *a* in the latter. The box C has a platform, *b*, projecting horizontally from its front side, and serving as a foot-board for the driver, whose seat G is over said foot-board, and is attached to an inclined elastic bar, H, secured to the framing A. At the sides of the body E, in the openings *a*, there are inserted horizontal shafts I, having spiral flanges J on them to serve as stalk-conveyers, and having three or more convolutions on the shafts I. These spiral conveyers just clear the sides of the box C, as shown in Figs. 2 and 3, and to the front end of the framing A, underneath these conveyers, cylindrical fingers K are attached. These fingers are constructed of round rods, pointed or made sharp at their outer or front ends, and they may be of iron or steel. If of the former metal, they should have steel points. These fingers K occupy the spaces between the sides of the box C and body E, at the front part of the lower ends of the same, and at the inner side of each set of fingers there is a fixed knife or cutter, L, having a sickle-edge and a rounded front part, *b'*, as shown in Fig. 2. The wheels B B have each a toothed wheel, M, attached to or cast concentrically with it, and into these wheels M pinions N gear, the latter being on the shafts O, which have their bearings on the framing, and sliding bevel-pinions *c* on their inner ends, which are adjusted or moved by the following mechanism: P P are arms on shafts on Q Q, underneath the framing, said shafts having pins *d* at their inner ends, which extend up through oblique slots *e* in sliding plates R on the framing A, the plates R having rods S attached, which extend forward to the front end of the body E, and are attached to levers T, one at each side of the driver's seat G, the fulcra of said levers being on the foot-board *b*.

When the machine is at work or in operation, the bevel-pinions *c* are in gear with the pinions *f* on shafts H H, from which the conveyers J are driven by belts *g*, and on the front ends of these shafts H H there are placed bevel-pinions *h*, which gear into corresponding pinions *i* on vertical shafts *j* in the front end of the framing A, said shafts *j* having cutters V attached to their lower ends.

The cutters U are of **S** form, as shown clearly in figure, so as to have the convex cutting-edges R R, which work underneath the fingers K, (see Fig. 4,) in which the arrow 1 indicates the direction of the rotation of the cutters. This form of the cutters causes them, as they rotate, to operate with a drawing cut; and in order to render the conveyers efficient in

their operation the sides of the box C, or equivalent supports, are necessary, for by means of these sides the conveyers are made to carry the stalks backward into the rear part of the body of the device in an upright position, which renders them capable of being handled, either bound or cast from the device in loose gavels, as may be desired. By having the fingers K of cylindrical form the stalks, as the machine is drawn along, pass between the same, and are cut off directly below or underneath them, the cylindrical form of the fingers having a tendency to throw up the cut stalks, and not allow them to wedge or bind between them, as would be the case were the fingers formed with flat sides. The cutters and conveyers may be rendered inoperative at any time by throwing the pinion *c* out of gear with the pinions *f* of the shafts H.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the **S**-shaped cutters U, spiral conveyers J, fingers K, and body E with box C, as herein described, for the purpose specified.

2. The cylindrical pointed fingers K, in combination with the rotary **S**-shaped cutters U, as and for the purpose specified.

L. B. HAMILTON.

Witnesses:
WM. F. MCNAMARA,
ALEX. F. ROBERTS.