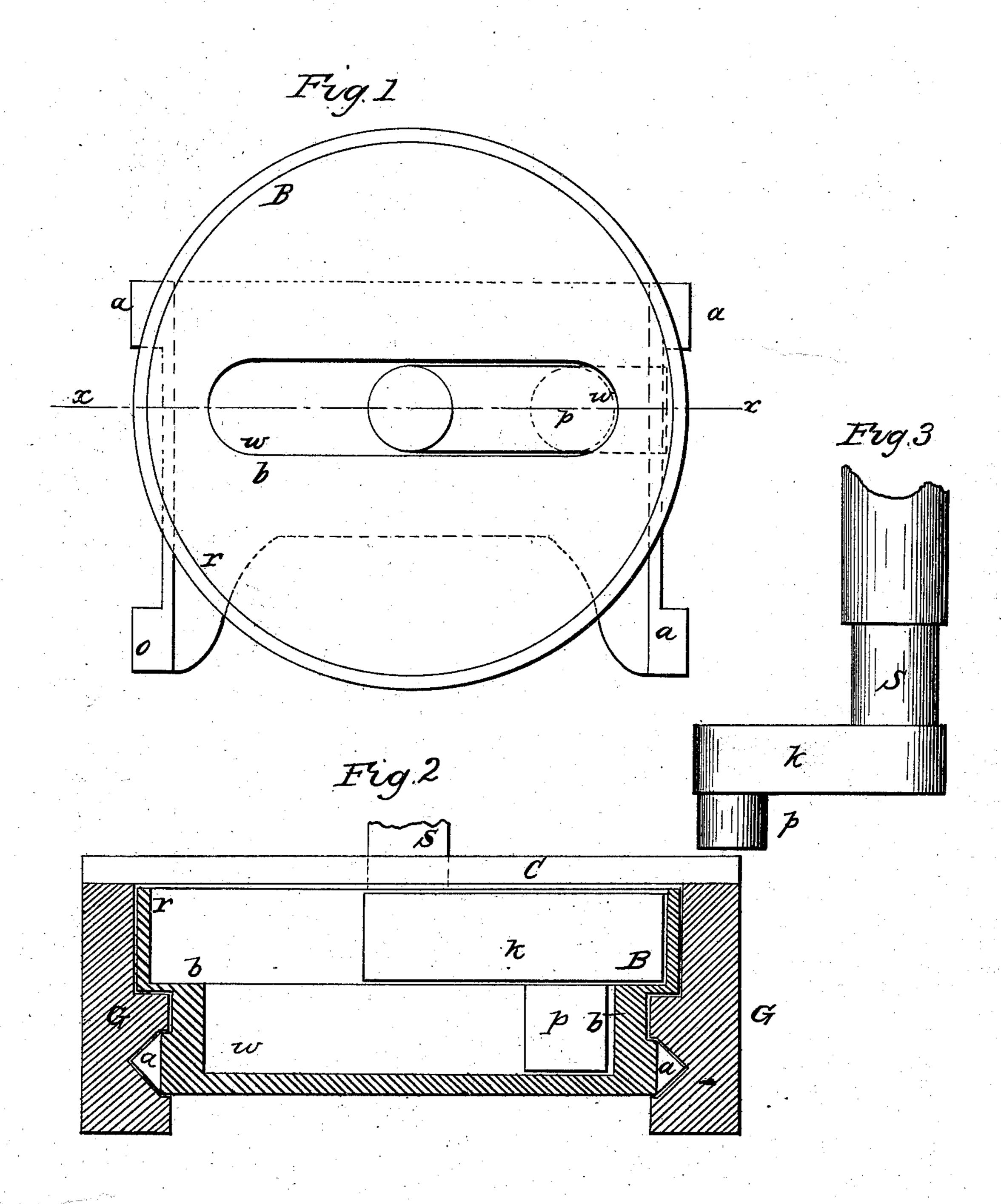
## I. KNAUER.

Harvester.

No. 17,157.

Patented April 28, 1857.



## UNITED STATES PATENT OFFICE.

ISAIAH KNAUER, OF VALLEY FORGE, PENNSYLVANIA.

## IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 17,157, dated April 28, 1857.

To all whom it may concern:

Be it known that I, Isaiah Knauer, of Valley Forge, in the county of Chester and State of Pennsylvania, have invented a new and useful Improvement in Harvesters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, forming part of this specification, in which—

Figure 1 is a top view of the box in which the crank moves in producing the motion of the cutter-bar. Fig. 2 is a section on x x, perpendicular to bottom of said box. Fig. 3 is a view showing the operating-crank.

Similar characters of reference in the several

figures denote the same parts.

The object of my invention is to prevent the access of dirt to the mechanism by which the cutter-bar is reciprocated, and provide for the constant lubrication of the same.

The nature of my invention consists in a peculiarly-constructed close box for the reception of the operating-crank and its pin, when used in combination with covered guides, so that under all circumstances the top shall be closed while the pin is kept constantly lubricated.

In the drawings, B is the box to which the cutter bar is attached, consisting of a rim, r, and bottom b, a portion of which bottom is

made sufficiently thick to admit of the formation therein of a long well, w, for the reception of the crank-pin p. Upon this solid portion of the box bottom are the projections a, by which the box is held in the guides G. These guides are connected by a cover, C, in which is an opening for the passage of the shaft S, by whose rotation the box is moved, the rotation of the said shaft causing the crank k to move within the box, while the pressure of the pin p against the sides of the well w produces the reciprocation of the box and with it the cutter-bar attached thereto. The close cover upon the guides prevents the entrance of dirt at the top, and the well in which the pin p moves can be made a receptacle for oil out of the reach of dirt and grit.

I make no claim to the manner of producing the reciprocation, as that is not new; but

What I claim is—

The peculiarly-constructed close box B, in combination with guides G G and cover C, when arranged to operate in the manner and for the purposes set forth.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

ISAIAH KNAUER.

Witnesses:

GEO. PATTEN, JOHN S. HOLLINGSHEAD.