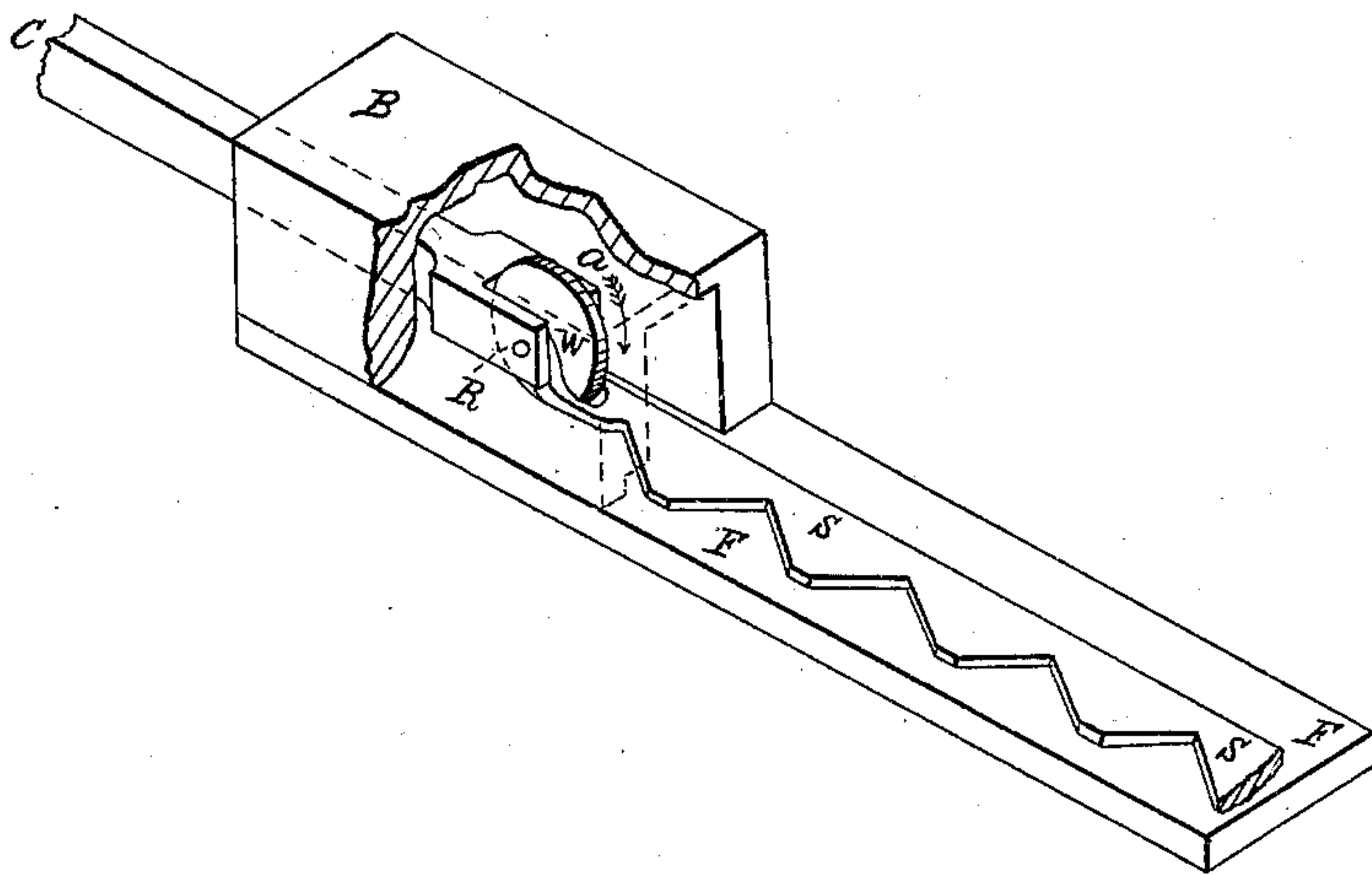


D. D. GITT.

Harvester.

No. 45,823.

Patented Jan. 10, 1865.



Witnesses:

*L. J. Donnes*

*Jos. L. Covault*

Inventor:

*D. D. Gitt* by

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his atty

# UNITED STATES PATENT OFFICE.

DANIEL D. GITT, OF ARENDTSVILLE, PENNSYLVANIA.

## IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 45,823, dated January 10, 1865.

*To all whom it may concern:*

Be it known that I, DANIEL D. GITT, of Arendtsville, in the county of Adams and State of Pennsylvania, have invented certain new and useful Improvements in Harvesters; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which represents in isometrical perspective view the cutting apparatus of a harvester to which my improvement is applied.

My invention relates to that part of a reaping or mowing machine which is known as the "cutting apparatus;" and it consists in certain devices for diminishing friction attending the operation of the sickle. I have heretofore obtained Letters Patent of the United States for an improvement having the same object in view; but I have found that the same result may be effected by a more simple contrivance, or by a contrivance of a more simplified construction and arrangement operating in substantially the same manner, but less liable to get out of and more easily kept in working order.

To enable others to make and use my invention, I shall now proceed to describe my invention in detail and the manner in which the same may be carried into effect.

S in the accompanying drawing is the sickle or cutting-blade, which may be of any ordinary or suitable construction. It receives its reciprocating motion in line parallel with the finger-bar F from a crank moved by a suitable gear mechanism actuated by the driving-wheel of the machine, not shown in the drawing, but which is perfectly understood, it having that feature in common with almost every reaping or mowing machine in existence. The movement is thus transmitted through the intermediary of a connecting-rod or pitman, C, whose outer end is forked to embrace the inner end of the sickle. The connection is effected by means of a pin, *p*, running through corresponding eyes in the forked end of the connecting-rod and the end of the sickle-bar. Upon this pin is mounted a friction-wheel, W, occupying a central position in relation to both the sickle and the connecting-rod, the former, to this effect, be-

ing slotted to admit of the free play of the wheel. I prefer to give this wheel as large a diameter as consistent with the space within which it is to be confined, in order to diminish friction as much as possible. This involves the necessity of curving the forked end of the sickle-bar upward, so that the cutting-blade may travel in a line parallel and in contact with the finger-bar.

It will be understood that the forked end of the sickle-bar may embrace the forked end of the connecting-rod, the main object being the central position in relation to both the friction-wheel and roller. In connection with this arrangement I employ a box, B, which incloses the anti-friction connection of the pitman with the sickle. This box may be of a quadrangular form, closed on top and on the front side, and is of a length equal to the stroke or extent of reciprocating travel of the said connection, for the purpose of protecting the parts from becoming entangled with the grass, or choked or clogged therewith. The interior sides of this box constitute the ways whereby the inner end of the sickle is guided, and the top and bottom are the guides against which the roller travels. The height of the box but slightly exceeds the diameter of the wheel, so that rolling contact shall be on but one side at any portion of the stroke. When the connecting-rod is thrust forward, the wheel will roll along the bottom of the box and revolve in the direction of the arrows *a*. On its return the wheel will roll along the top of the box, and of course revolve in the same direction. From this it will be seen that although the sickle has a reciprocating travel, the roller or wheel will have a rotary motion continuously in the same direction.

The box may be made with the front part removable, or with register slides or trap; or other contrivance may be used for the purpose of allowing access to the parts of the friction mechanism for lubricating and other purposes without necessitating the dismemberment of the machine.

Having now described my invention, I shall state my claims as follows:

1. Mounting the friction-roller upon the pin which unites the connecting-rod with the

sickle, when the said roller occupies a central position in relation to both, as shown and described.

2. In combination with the above, the employment of a box closed on top for the double purpose of guiding and protecting the anti-friction connecting device, substantially in the manner described.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

DANL. D. GITT.

Witnesses:

JOHN S. HOLLINGSHEAD,  
JOS. L. COOMBS.