

T. Neys,
Harvester Cutter.

No. 98,182.

Patented Dec. 21, 1869.

Fig. 1.

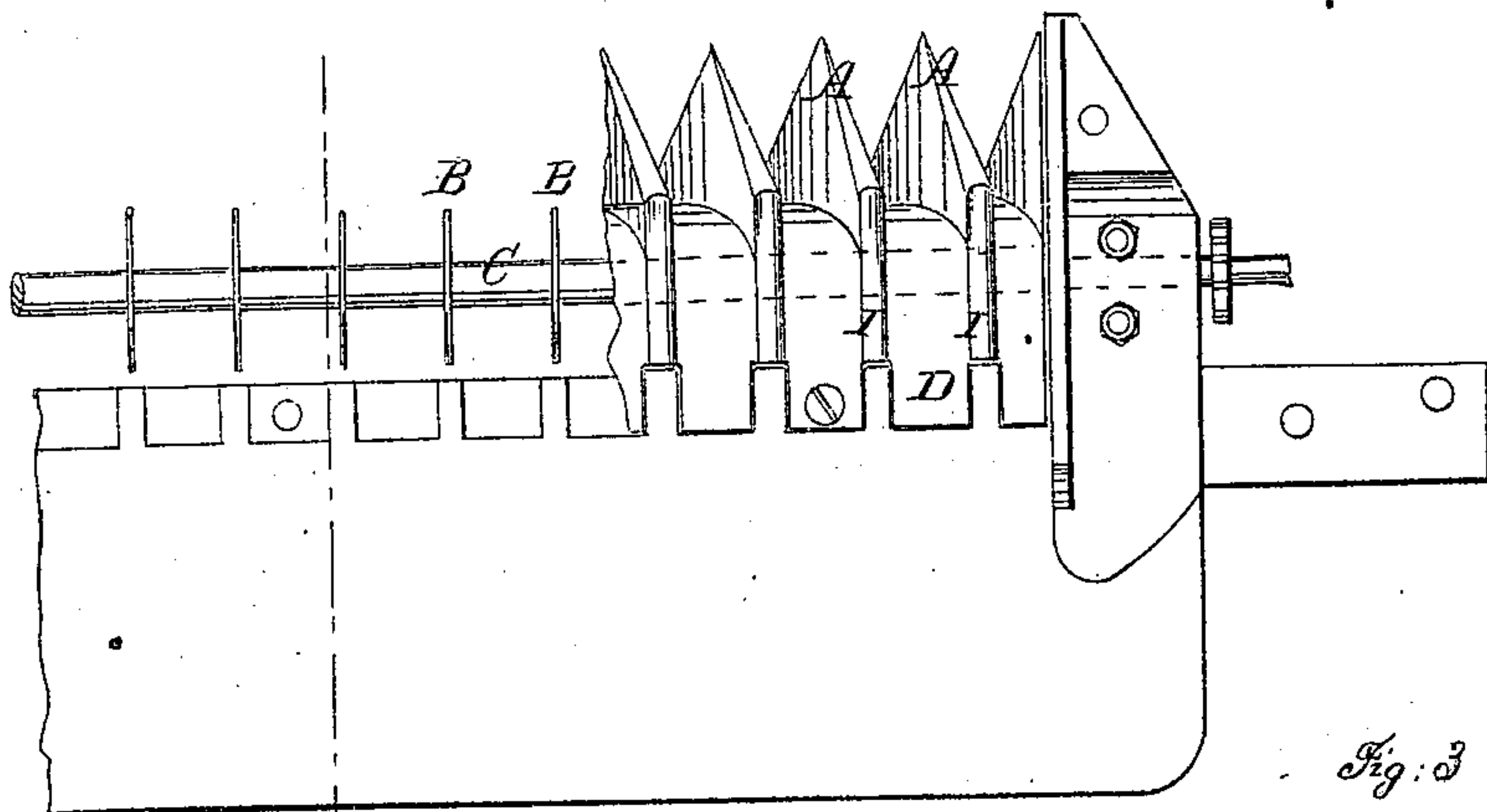


Fig. 2.

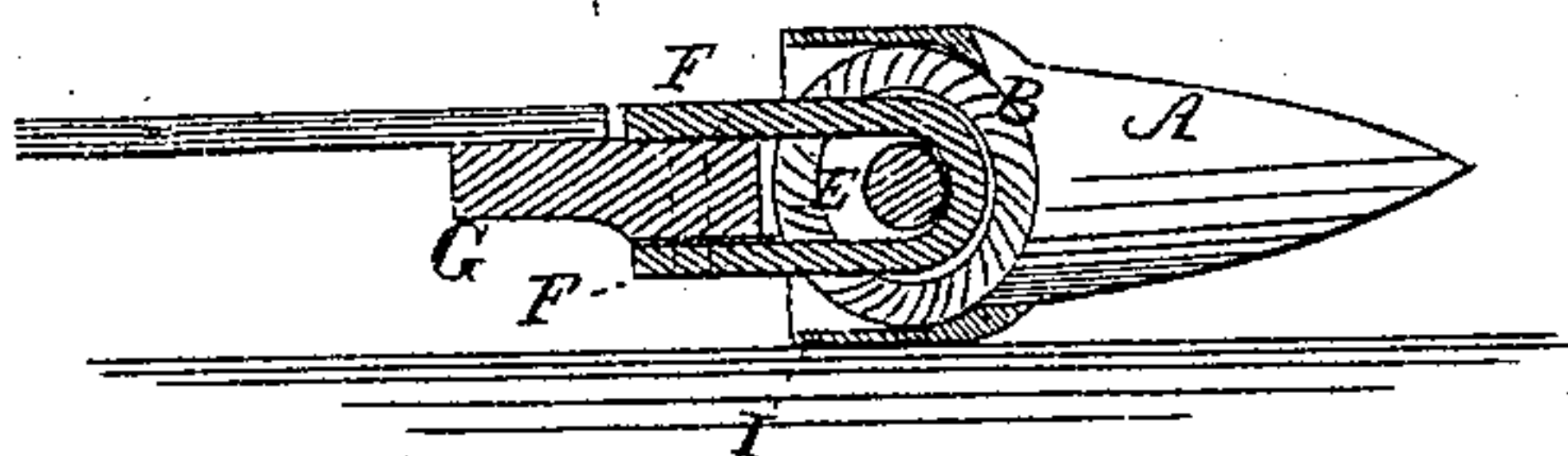
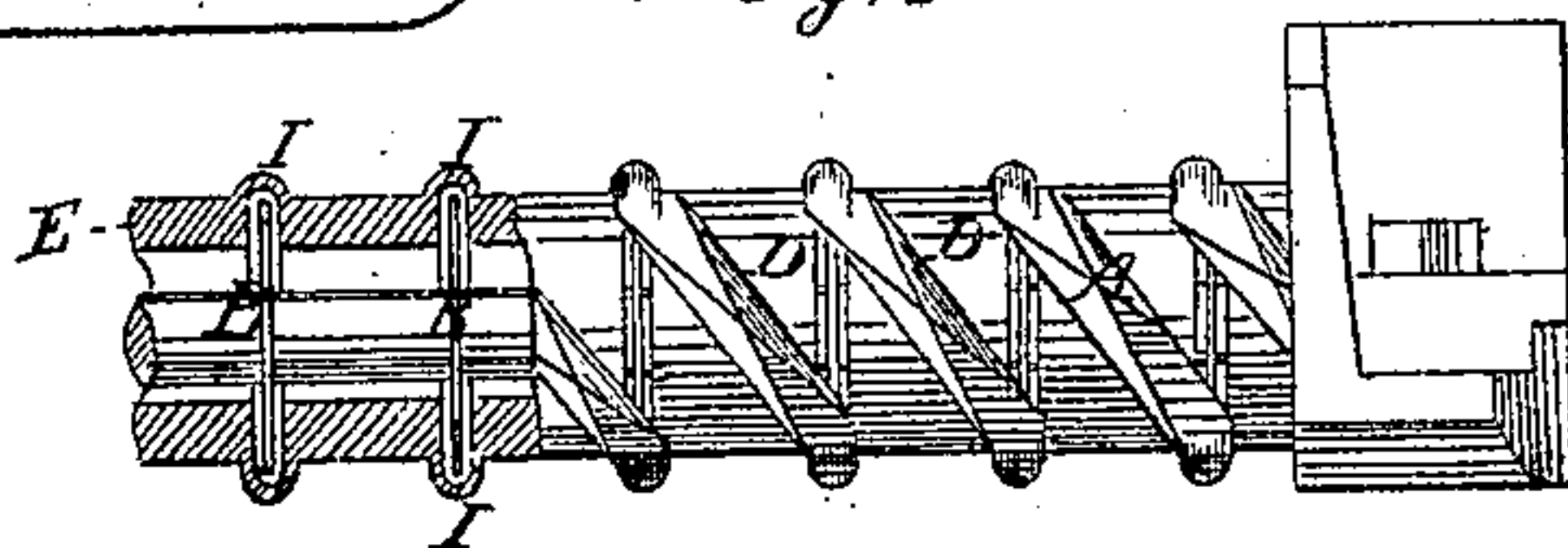


Fig. 3.



Witnesses:

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THEODORE NEYS, OF MENOMONEE, WISCONSIN, ASSIGNOR TO HIMSELF
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Letters Patent No. 98,182, dated December 21, 1869.

IMPROVEMENT IN HARVESTER-CUTTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, THEODORE NEYS, of Menomonee, in the county of Dunn, and State of Wisconsin, have invented a new and useful Improvement in Mowing and Reaping-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to improvements in mowing and reaping-machines; and consists in the employment of rotary sickles or cutters on a horizontal shaft traversing the finger-bar, said finger-bar being constructed to enclose the cutter-shaft, and having guard-fingers arranged obliquely to the vertical planes of the cutters, so that the grain will be bent across the edges of the cutters, which project through slots in the wall between the fingers, and extend from the side of one finger to the other, so as to work across the whole space.

Figure 1 is a plan view of a part of the guards and cutters and cutter-bar;

Figure 2 is a section on the line *x x* of fig. 1; and Figure 3 is a partial front view.

Similar letters of reference indicate corresponding parts.

The guards A are made broader than usual, having continuous lateral surfaces, and arranged obliquely, in respect to their vertical axes, so that the upper edge of one and the lower edge of the next will be in the same vertical plane; and the circular saws or cutters B are arranged in these planes, on a horizontal rotary shaft, C, and they project through slots in the wall D, between the fingers, into the spaces between them, so that their cutting-edges traverse the oblique spaces in vertical planes.

As the straws to be cut are forced into the spaces between these fingers, they will be bent across the edges of the cutters, so as to be readily cut by them.

The fingers in this example are formed by casting, and all cast together in one piece, and with a suitable space, E, behind the wall D, for the driving-shaft C. They are also formed with tongues F, top and bottom, projecting backward, for connection to the finger-bar G, by screws or rivets H.

To provide vertical space for the saws, the fingers are also arranged with the hollow ribs I, connecting the lower plane parts between them.

The slot in the walls D, and the spaces in these ribs I, are formed by "coring" the moulds in the usual way.

The parts of the guards projecting beyond the wall D, may also be "cored" out to make them hollow, and with less metal than would be required if made whole.

The guards may, however, be made separately, if desired.

The shaft C may be driven by gear-wheels or belts and pulleys, connecting in any approved way with the driving-wheels.

It is believed that this mode of cutting the grain will admit of accomplishing the same with much less power, and that the parts may be made lighter and cheaper than is required in the reciprocating arrangements.

It will be seen that the plate or casting which has the guards, is so constructed that the entire shaft is enclosed which secures the knives, and that said casting is provided with very narrow slots between the fingers of the guards, for the knives to pass through.

In the operation of the machine there can be no gumming or choking of the machine, as is usual with those where the shaft supporting the knives is left exposed.

I am aware that harvester-cutters are known which have inclined guards in front of a shaft, which is provided with revolving cutters.

None of those known enclose the knife-shaft and keep it free from the grass or other obstructions, hence I do not consider they would practically operate.

Whenever the knives on the revolving shaft are exposed, they are easily broken or bent, and in a great measure retard the operation of cutting.

In this application I not only enclose the knife-shaft, but slot the front of the guard-plate, so that only the cutting-edges of the knives are exposed, and should they become bent, the said slots, acting as guides, will cause them to straighten themselves.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The guards A, made in an oblique form, having their lateral surfaces continuous, and provided with tongues F on top and bottom, by which they are connected to the bar G, and with a recess, E, between their forward parts, and the tongues, through which passes a shaft, C, having a series of circular vertically-placed knives, B, which operate under the ribs I, and through slots in guards, all substantially as specified.

THEODORE NEYS.

Witnesses:

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