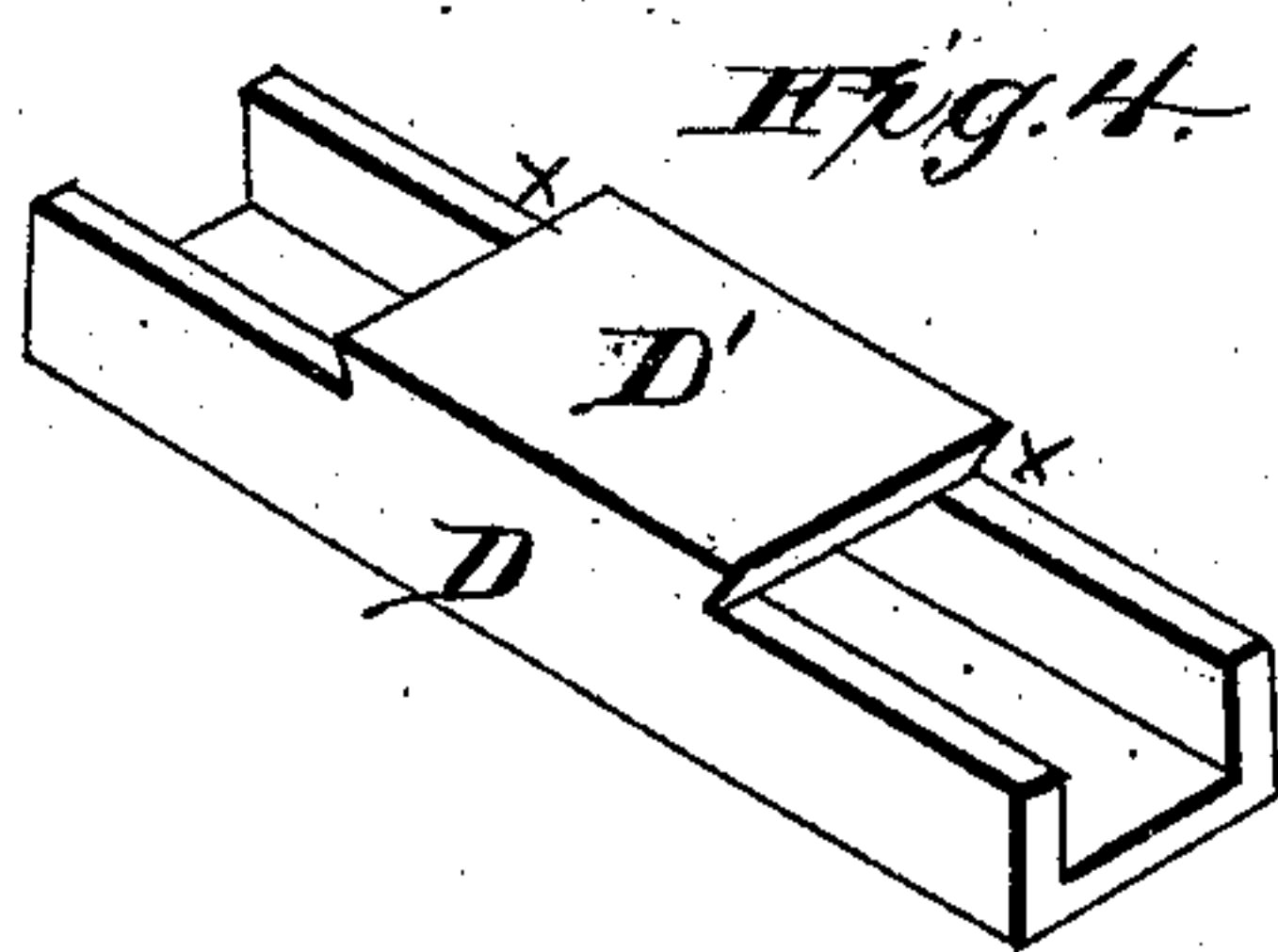
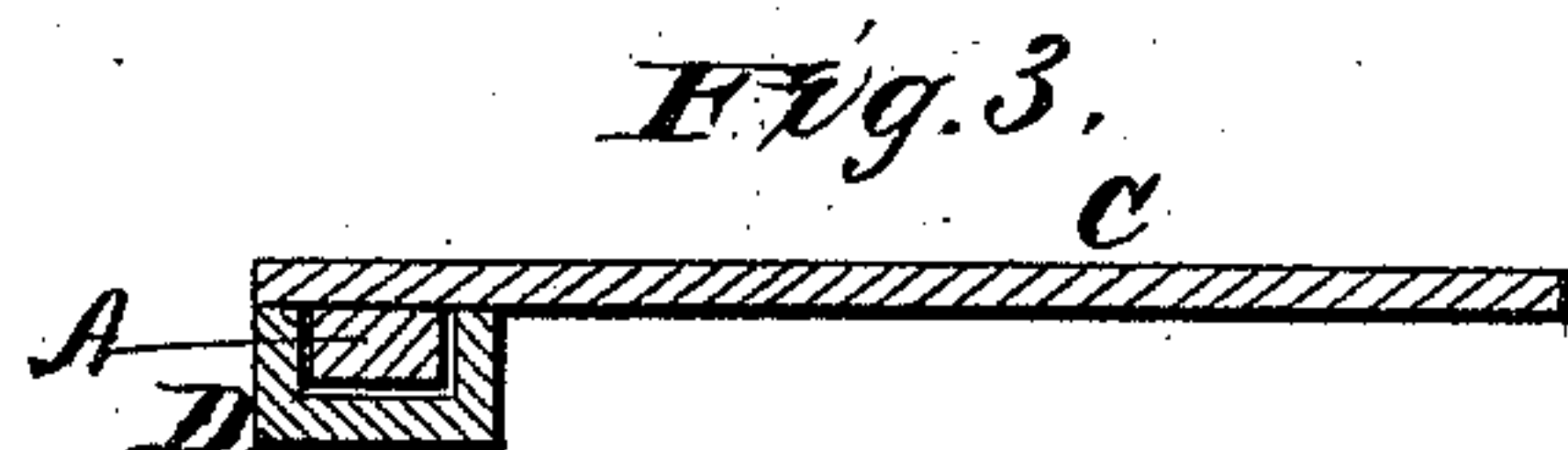
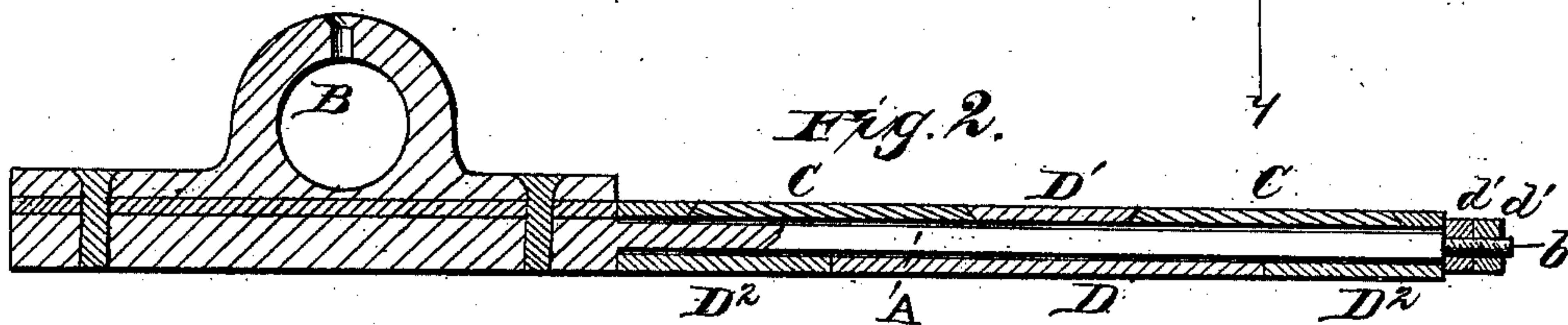
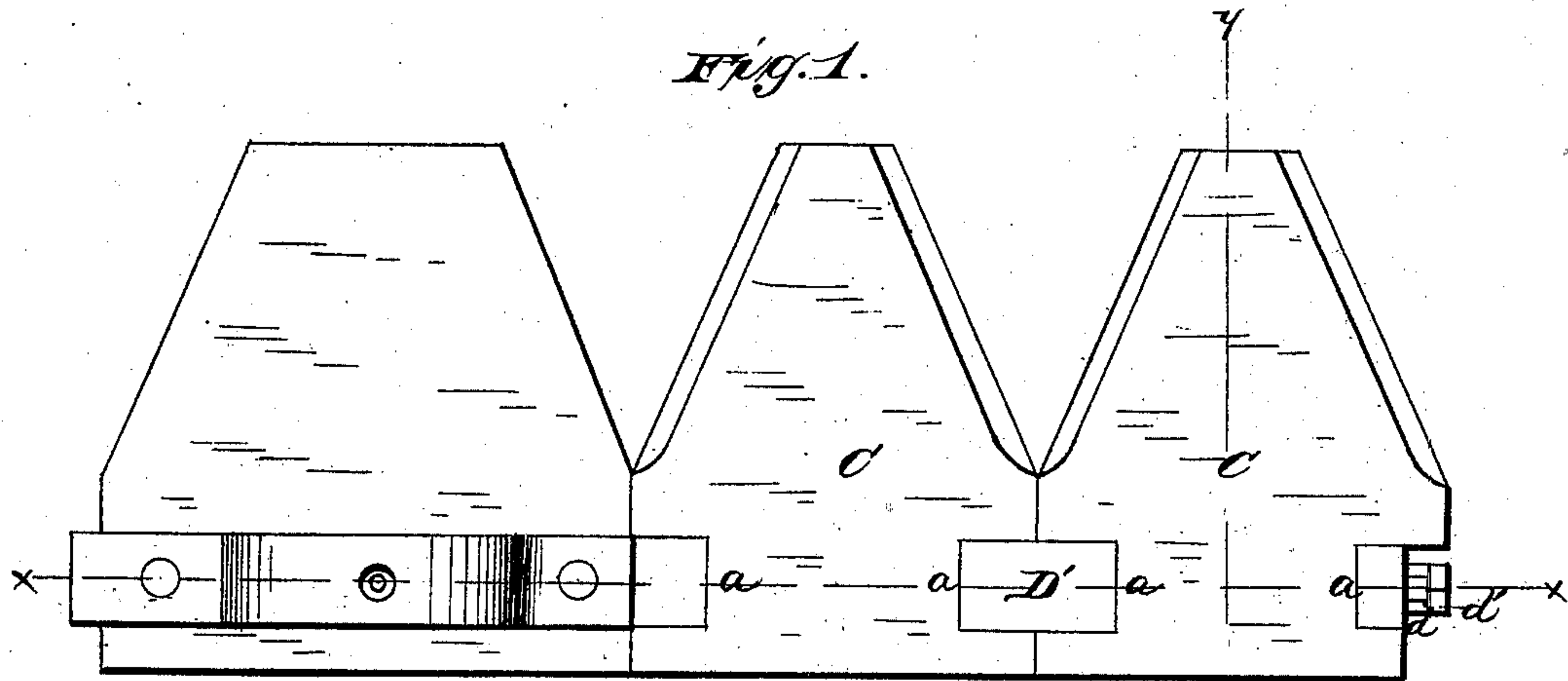


J. McCORMICK.
Harvester Cutter-Bar.

No. 203,175.

Patented April 30, 1878.



WITNESSES
G. L. Oursaud
Frank Galt

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UNITED STATES PATENT OFFICE.

JAMES McCORMICK, OF PRINCETON, INDIANA.

IMPROVEMENT IN HARVESTER CUTTER-BARS.

Specification forming part of Letters Patent No. **203,175**, dated April 30, 1878; application filed March 12, 1878.

To all whom it may concern:

Be it known that I, JAMES McCORMICK, of Princeton, in the county of Gibson, and in the State of Indiana, have invented certain new and useful Improvements in Harvester-Cutters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to sectional knives for reapers and mowers; and it consists in the construction and arrangement of the cutter-bar, sectional cutters, and the devices for connecting the same, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of my improved cutter-bar. Fig. 2 is a longitudinal section of the same on the line *x x*, Fig. 1. Fig. 3 is a transverse section on the line *y y*, Fig. 1. Fig. 4 is a perspective view of one of the connecting devices.

A represents the cutter-bar, provided at one end with the eye B for attachment to the pitman. C C are the knife-sections.

Each knife is formed on each side, at the base, with a square notch or slot, *a*, and they are connected to the knife-bar A in the following manner: The bar A is made of the square form shown in Fig. 3, and upon the extreme end is formed a bolt, *b*.

D represents a metal sleeve of such form and size as to fit on the bar A, it being moved lengthwise from the end inward. This sleeve is open at the top at each end, leaving a top plate, D¹, only in the center. The ends of this top plate are beveled under, as shown in Fig. 4 at *x x*. The inner edges of the notches *a* in the knife-sections are beveled to correspond therewith.

The sleeves D are to form the connections between the knife-sections and the knife-bar; but at each end of the cutter a sleeve of just half the size is put on—that is to say, one sleeve is divided in the center to form the end sleeves, as shown at D² in Fig. 2.

One half-sleeve, D², is first put on the knife-bar A up to the shoulder formed by the eye

B, and then a sleeve, D; but before this sleeve reaches the sleeve D² one knife-section C is put on the notches *a a* in its edges, fitting around the top plates D¹, and the sleeve D then pushed up in place, when the beveled edges *x x* of said top plates, fitting over the beveled edges in said notches, will hold said section in place. Another sleeve and another knife-section are then put on, and so on to the entire length of the bar, when, at the outer end, the second half-sleeve D² is put on to complete the cutter-bar. A nut, *d*, and jam-nut *d'* are then screwed on the end bolt *b*, holding all the parts firmly together.

It will readily be seen that it is only necessary to loosen the nuts *d d'*, when the sleeves can be sufficiently separated to remove any one or more or all of the knife-sections, for sharpening or other purposes. The joints of the knife-sections being in the center of the slides, and the joints of the slides being in the center of the sections, the whole bar becomes materially strengthened.

It will be noticed that from the construction of the sections, should the knife receive a shock, the strain will be thrown on the shoulder of the knife-sections, thus bearing the sleeve against the sides of the bar, and not toward the end; hence no strain comes on the nuts, and all the office required of these nuts is simply to tighten and loosen and hold in place.

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

1. A cutter-bar consisting of a straight bar, a series of removable sleeves having central top plates with beveled edges, and a series of removable knife-sections having notches to correspond with the top plates, and arranged to break joints, substantially as herein set forth.

2. The combination of the knife-bar A, with bolt *b* at the end, the sleeves D D², with beveled-edge top plates, the knife-section C C, having square beveled-edge notches *a a*, and the holding-nuts *d d'*, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of February, 1878.

JAMES McCORMICK.

Witnesses:

CALVIN R. HOWE,
R. M. J. MILLER.