

No. 742,084.

PATENTED OCT. 20, 1903.

B. F. STUART.
SICKLE BAR.

APPLICATION FILED SEPT. 6, 1902.

NO MODEL.

Fig. 1,

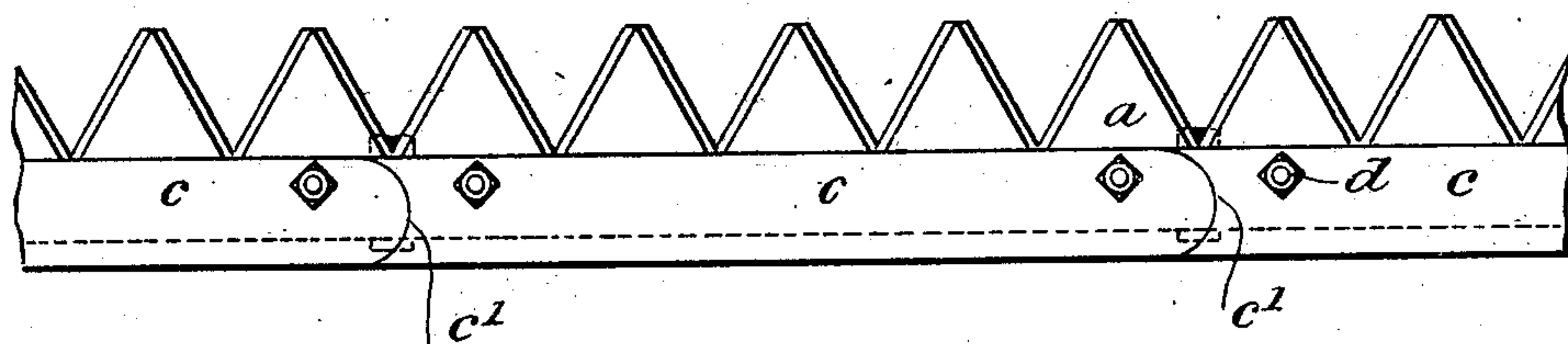


Fig. 2,

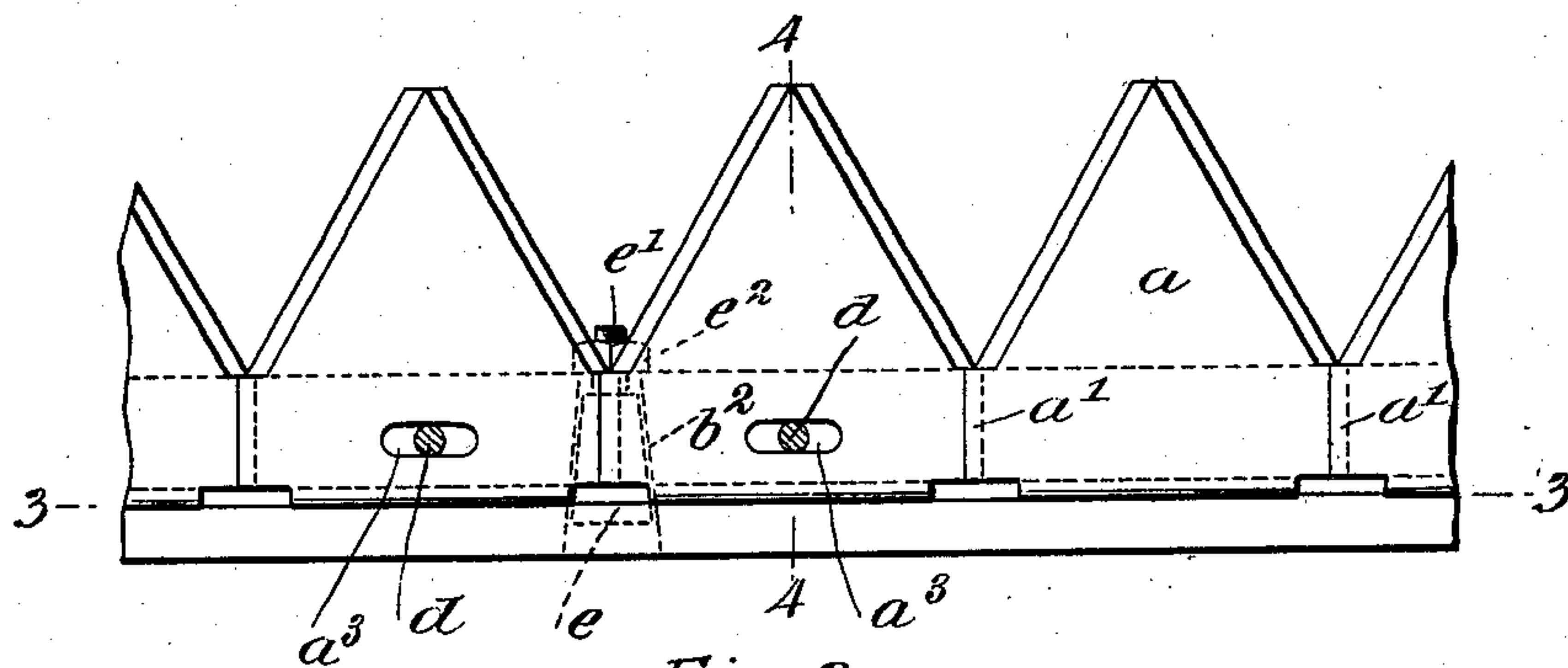


Fig. 3,

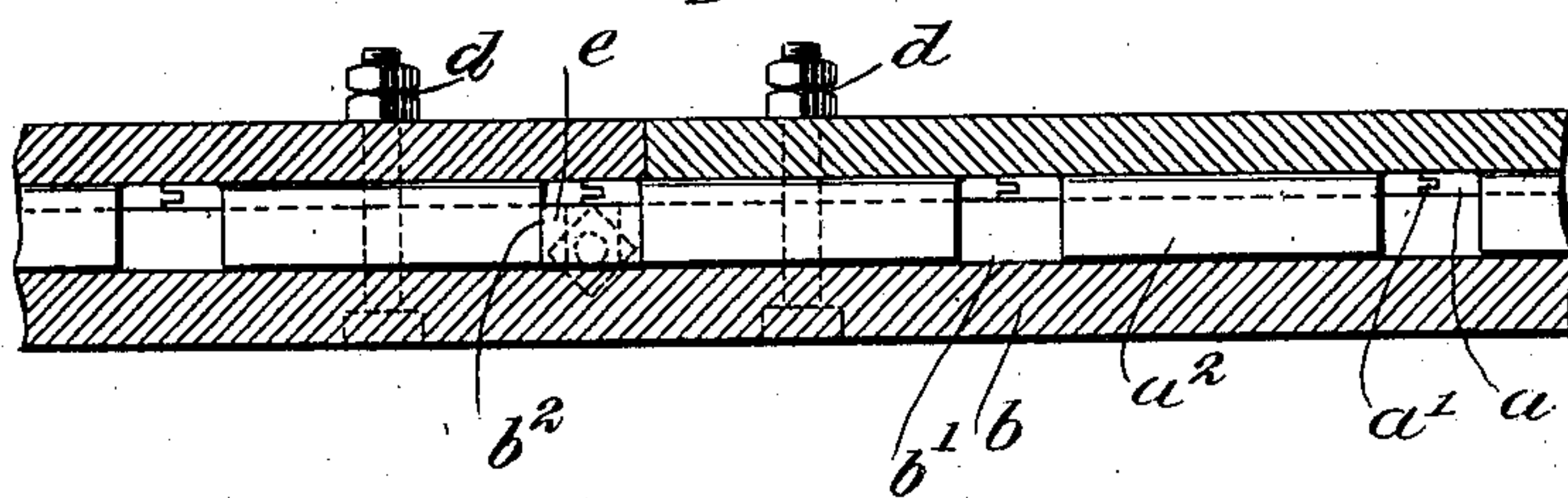
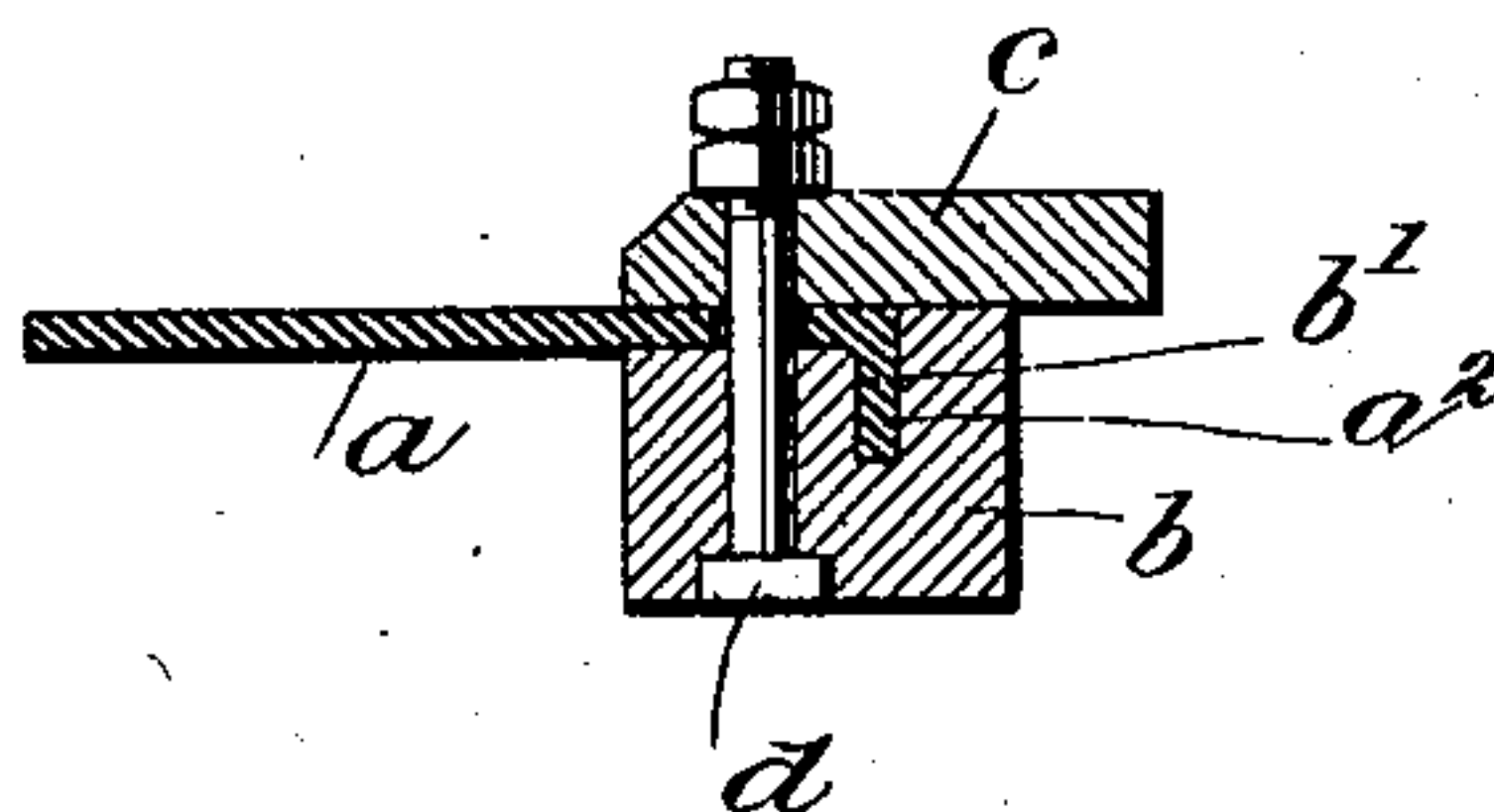


Fig. 4,



WITNESSES:

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BENJAMIN F. STUART, OF RUSHVILLE, MISSOURI.

SICKLE-BAR.

SPECIFICATION forming part of Letters Patent No. 742,084, dated October 20, 1903.

Application filed September 6, 1902. Serial No. 122,346. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. STUART, a citizen of the United States, and a resident of Rushville, in the county of Buchanan and State of Missouri, have invented a new and Improved Sickle-Bar, of which the following is a full, clear, and exact description.

This invention relates to a sickle-bar for harvesting-machines of all classes; and its object is to provide superior means for holding the sickles in place and for allowing them to be separately removed without entirely dissociating the sickle-bar and without involving the use of rivets or the like.

This specification is a specific description of one form of the invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the sickle-bar. Fig. 2 is an enlarged view showing the top of the bar removed. Fig. 3 is a section on the line 3 3 of Fig. 2, and Fig. 4 is a section on the line 4 4 of Fig. 2.

a indicates the sickles, which have matching tongues and grooves a' formed thereon and arranged to be engaged together, as illustrated, so as firmly to connect the sickles with each other. The bar is formed of a bottom section b and a series of top sections c . The said top sections are formed with inter-engaging ends c' , and the two parts of the bar are fastened firmly together by bolts d or any other desired form of fastening. If bolts are employed, a suitable nut-lock should be provided to prevent the accidental displacement of the bolts. The section b of the bar is formed in its top with a groove b' running longitudinally through it, and in this groove are placed loosely flanges a^2 , formed on the rear edges of the sections a and projecting downward therefrom. By this arrangement the sickles are allowed free movement longitudinally of the bar, but are prevented from movement laterally thereof. At various points along the length of the bar the section b is formed in its top face with transverse grooves b^2 , which according to the construction here shown taper toward the front side thereof and in which grooves are placed wedges e . These wedges

are adapted to bear against the adjacent flanges a^2 or other parts of the sickles, and by drawing the wedges forward the sickles are forced sidewise and are all bound tightly together. The bolts d are passed through slots a^3 in the sickles, said slots being elongated longitudinally of the bar, and by this arrangement the movement of the sickles independently of the bolts is not interfered with. The wedges e have threaded extensions e' at their front ends, and nuts e^2 are arranged to work on these extensions, said nuts bearing against the front side of the section b of the bar and furnishing means for drawing the wedges into active position. It will be observed that this construction holds the various parts of the bar bound firmly together into a solid and durable structure. At the same time it allows any one of the sickles to be independently removed without interfering with the other parts. To remove a sickle, the proper section c of the top part of the bar is removed, the adjacent wedge is relaxed, and the sickle after its matching edges a' are disengaged from the edges of the adjacent sickles is lifted off of the section b by a vertical movement.

Various changes in the form, proportions, and minor details of my invention may be resorted to without departing from the spirit and scope thereof. Hence I consider myself entitled to all such variations as may lie within the scope of my claims.

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

1. In a sickle-bar, the combination of a top section and a bottom section having a longitudinal groove, said top section being formed in sections abutting at their ends and fitting each other, sickles having flanges set loosely in said groove, said bars having bores extending therethrough to receive bolts to hold the bars firmly together, said sickles having central slots near their rear sides, said slots extending lengthwise of the sickle-bar and in registration with said bores, and screw-controlled wedges for pressing the sickles sidewise to bring them firmly against each other, as set forth.

2. In a sickle-bar, the combination of a top section and a bottom section having a longi-

tudinal groove, a series of sickles having downwardly-turned flanges set loosely in said groove, the ends of said flanges being cut away to space apart the flanges from each other, 5 said bars having bores extending there-through to receive bolts to hold the bars firmly together, divers of said sickles having central slots near their rear sides, said slots extending in a direction lengthwise of the sickle- 10 bar and in registration with said bores, transverse grooves intersecting the first groove at points where two sickles meet, and screw-controlled wedges held in said grooves with their inclined sides bearing against the spaced 15 ends of the flanges of adjacent sickles for pressing the sickles sidewise to bring them firmly against each other.

3. In a sickle-bar, the combination of a top bar made in sections and a bottom bar hav- 20 ing a longitudinal groove, a series of sickles having flanges set loosely in said groove, the ends of said flanges being spaced from the sides of their respective sickles, said upper and lower bars having bores extending there-

through at the ends of the sections of the up- 25 per bar to receive bolts to hold the bars firmly together, the ends of said sections of the upper bar meeting at points where two sickles meet, the two sickles thus located having slots extending in the direction of the longitudi- 30 nal extent of the bar and in registration with said bores, said lower bar having transverse grooves intersecting the first groove at points where two sections of the upper bar meet, and wedges held in said grooves with their inclined 35 sides bearing against the spaced ends of the flanges of adjacent sickles for pressing the sickles sidewise to bring them firmly against each other, said wedges having a threaded portion engaged by a nut, on their narrow 40 ends to hold them in place on the bar.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BENJAMIN F. STUART.

Witnesses:

T. C. TREAT,
M. SMALLEN.