No. 777,093. PATENTED DEC. 13, 1904.

S. A. HARTMAN.

ATTACHMENT FOR SICKLE BARS.

APPLICATION FILED JULY 8, 1904.

NO MODEL.

Fig. 1.

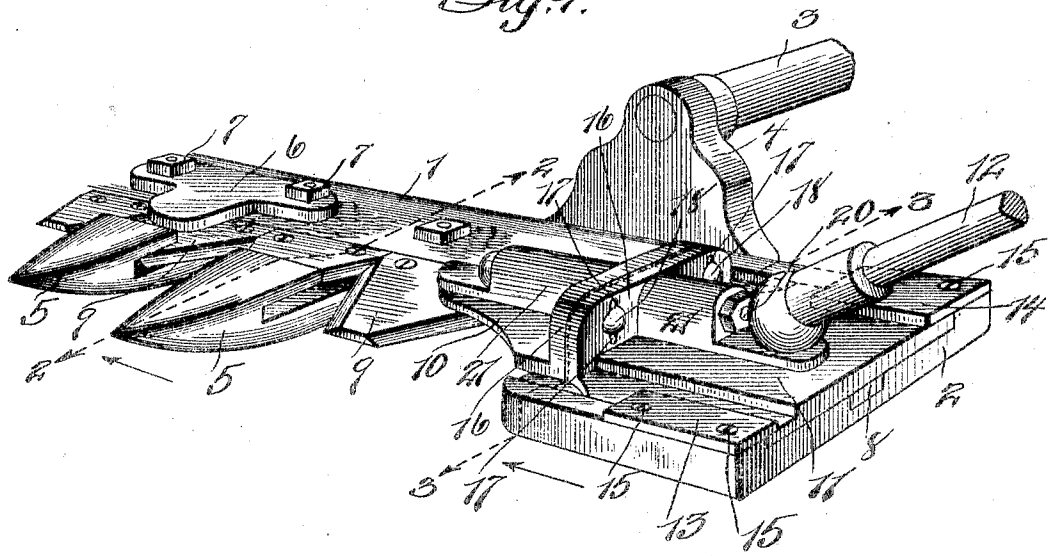


Fig. 2.

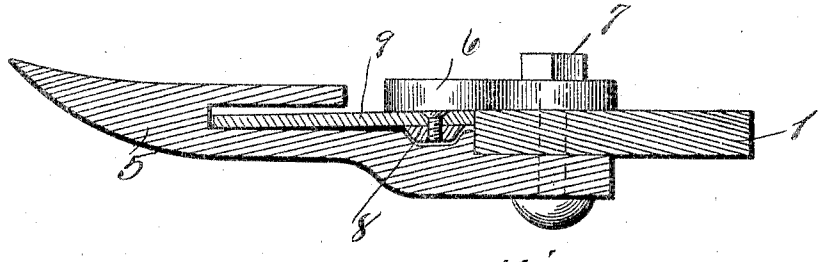
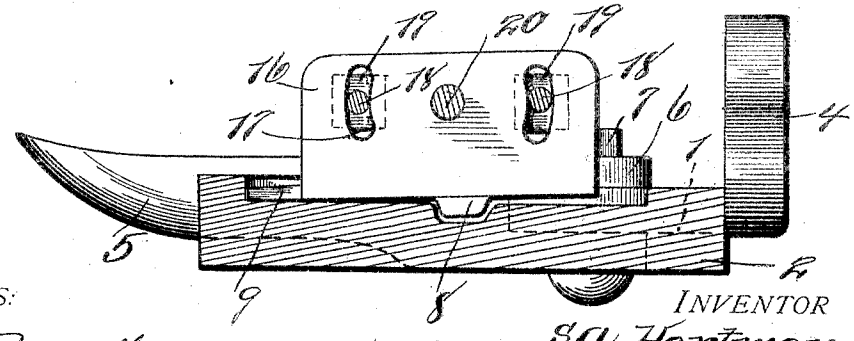


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

STEPHEN A. HARTMAN, OF CHARLES CITY, IOWA.

ATTACHMENT FOR SICKLE-BARS.

SPECIFICATION forming part of Letters Patent No. 777,093, dated December 13, 1904.

Application filed July 8, 1904. Serial No. 215,824. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN A. HARTMAN, a citizen of the United States, residing at Charles City, in the county of Floyd and State of Iowa, have invented certain new and useful Improvements in Attachments for Sickle-Bars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an attachment for reapers, mowers, &c., and more particularly to means for adjusting and readjusting the knife-sections of the sickle in order to compensate for the wear on the points and edges thereof; and my invention consists of certain novel features of combination and construction of parts, the preferred form whereof will be hereinafter clearly set forth, and pointed out in the claims.

The prime object of my invention, among others, is to provide an adjustability for the knife-head or sickle-bar whereby full compensation may be made at any time for wear that has taken place on the knife-sections of the sickle, and thus insuring that said knife-sections may be always kept in proper cooperative relationship or flat upon the sickle-guards, the result being that more efficient work will be possible.

A further object of my invention is to provide a simple, though reliably-efficient, construction for the accomplishment of the results stated.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 shows a perspective view of my invention as applied to use. Fig. 2 shows a sectional view of Fig. 1 on line 2 2, while Fig. 3 shows a sectional view of Fig. 1 on line 3 3, both of the views shown in Figs. 2 and 3 being observed from the direction indicated by the arrows.

For convenience of reference to the various details and coöperating accessories of my invention numerals will be employed, the same numeral applying to a similar part throughout the several views.

In the following specification and the accompanying drawings I deem it unnecessary to show an entire sickle-bar or a mowing-machine, and have therefore limited the showing in the drawings and the description to what I deem sufficient to illustrate the construction of my invention.

Referring to the numerals on the drawings, 1 designates the sickle-bar, of the usual or any preferred construction, operatively connected to the shoe or carrying-bar 2, connected with the framework in any preferred way, as by the arm 3, extending from the framework of the machine and connected with the bracket or ear extension 4. The sickle-bar thus or otherwise constructed is provided in the usual manner with a plurality of sickle-guards 5 and with a sufficient number of overhanging brackets or sickle-retaining ears 6, held in place in any preferred way, as by the bolts 7. Coöperating with the sickle-guards is a sickle-bar 8, having a plurality of knife-sections 9 of substantially the usual construction, said knife-sections being beveled, as is common. The knife-head is made in two sections, as indicated by the numerals 10 and 11, the section 11 being designed to be reciprocated by the pitman-rod 12 within suitable guideways in the shoe or member 2, said guideways in this instance being formed by providing a transverse recess in said shoe or carrying member and securing the retaining-lips 13 and 14 in position, as by the screws or rivets 15.

Each of the sickle-head sections 10 and 11 is provided with an upwardly-directed flange, as designated by the numeral 16, and in one of said flanges is formed a pair of apertures, while in the other two registering radial slots 17 are located to receive the adjusting-bolts 18, and it is obvious that the sickle-bar and the plurality of knife-sections carried thereby may be readily adjusted from time to time by simply loosening the nuts 19 upon the bolts 18 and retightening said nuts after said adjustment has been made.

It is found in practice that the lower edges and the extreme outer point of the sickle-sec-

tions 9 become worn away, presenting a more or less defined beveled lower edge for coöperation with the sickle-guards. When the lower edges of the knife-sections have thus become worn away, said edge is left slightly above the coöperating edges of the sickle-guards, and the result is that the knife-sections have a tendency to ride over the blades of grass, straw, &c., instead of cutting the same squarely off, and by the means which I have provided for adjusting the sickle-bar, thus lowering the points of the knife-sections, I am enabled to move the points of said knife-sections down upon the sickle-guards, thus insuring that the square cutting edges of said parts will coöperate with each other substantially the same as when the machine was new.

The slotted openings 17 being slightly radial relative to the axis-point which is formed by the shaft or bolt 20 extending longitudinally through the members 10 and 11 or other raised portions or ribs 21 thereon, it is obvious that any reasonable degree of adjustment may be attained for the sickle-bar and that the points of the knife-sections may be raised and lowered as may be necessary to place said knife-sections in proper coöperative relationship with the sickle-guard.

The various parts of my invention may be cheaply and expeditiously manufactured and each readily assembled in its respective operative position, and while I have described the preferred combination and construction of parts I desire to comprehend in this application all substantial equivalents and substitutes that may be considered as fairly falling within the scope and purview of my invention.

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

1. The herein-described attachment comprising the combination with the sickle-bar, of a head-section made in two parts as indicated by the numerals 10 and 11; means to operatively connect one of said parts with the driving-pitman and additional means to secure a relative adjustment of the members 10 and 11 whereby the points of the knife-sections may be raised or lowered as desired, all combined substantially as specified and for the purpose set forth.

2. The herein-described attachment, comprising the combination with the sickle-bar, of a head-section made in two parts, means to rotatably secure one of said sections to the other section, one of said sections being provided with slots, and means carried by the opposite section adapted to intersect said slots whereby they may be locked together when the knife-section has been properly adjusted, substantially as set forth.

3. In an attachment, the combination with the sickle, of a head-section made in two parts and pivotally secured together, one of said parts having slots therein, bolts carried by the other section adapted to enter said slots whereby said sickle may be held in its adjusted position, substantially as set forth.

4. In an attachment, the combination with the sickle, of a head-section made in two parts and bolted together, means to unite a driving-pitman with one of said parts, bolts 18 carried by one of said parts and intersecting slots in the other part whereby the sickle-knives may be elevated or lowered and securely held in their adjusted position, substantially as and for the purpose set forth.

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

STEPHEN A. HARTMAN.

Witnesses:
EDWARD I. MORGAN,
ED. PALMER.