(No Model.)

A. D. HAMLIN.

MOWING MACHINE.

No. 260,391. Patented July 4, 1882.

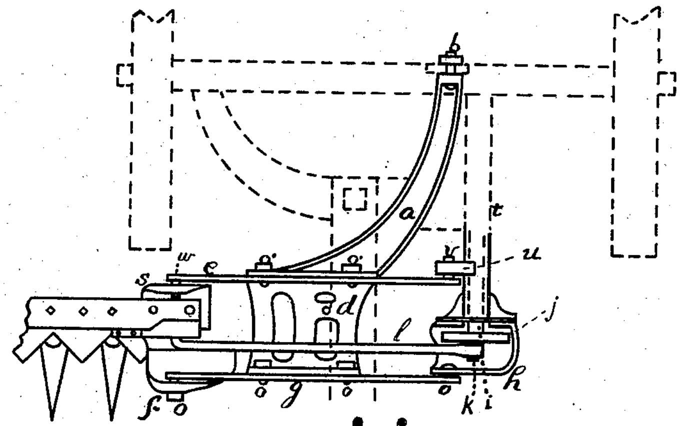

FIG. 1.

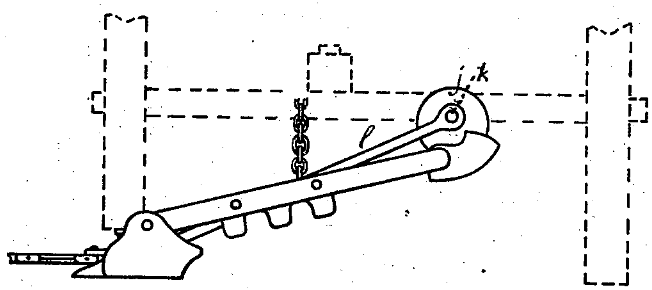

FIG. 2.

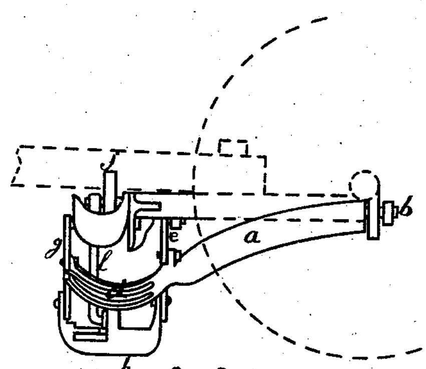

FIG. 3.

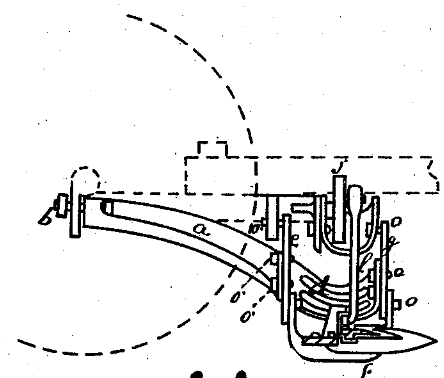

FIG. 4.

WITNESSES:

Wm. J. Goodwin.
John B. Kerrigan.

INVENTOR:

Arthur D. Hamlin.
Per Attys.
Clifford & Clifford

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR D. HAMLIN, OF PORTLAND, MAINE.

MOWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 260,391, dated July 4, 1882.

Application filed February 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR D. HAMLIN, of Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Mowing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 shows a plan of my invention. Fig. 2 shows a front view. Fig. 3 is a side view of the brace and parts connected therewith. Fig. 4 is a view of the brace and parts connected therewith on the side opposite to that shown in Fig. 3.

Same letters show like parts.

The purpose of my invention is to produce a brace to be connected with the axle of a mowing-machine, so as to render the operating parts firm and strong and less liable to accidents.

My invention consists in the combination of the brace, such as above alluded to, with what I call the "frame" to support the cutter, and also in a plate, in combination with the frame, to give strength to the frame and protect the crank-rod that operates the cutters.

a shows the brace. It has a lateral and downward curve, as illustrated in Figs. 1, 3, and 4. It is made of any desirable metal, and is connected with the sleeve that surrounds the axle of the machine by a bolt, *b*, which extends through said sleeve, or through an ear or projection on it made to receive it. This arrangement of the bolt *b* is such that it acts as a pivot for the brace *a* and allows it to turn upwardly in a vertical plane in front of the axle and wheels when the frame *c* is so turned. What I thus call the "frame" is composed of the part *d*, which is the lower and wider part of the brace *a*, the piece *e*, the end piece *f*, the front plate, *g*, and the end piece *h*.

i shows the shaft which gives motion to the cutters. This derives its motion from the rotation of the axle of the machine, but is not the subject of any claim in this case, and its connection with the axle is therefore not shown in the drawings. The shaft *i* has rigidly attached to it the crank-wheel *j* with the wrist-pin *k* thereon. Thus the necessary motion is given to the rod and communicated to the cutters. This rod is protected by the front plate, *g*, which is bolted or otherwise secured to the part *d*, the end piece *f*, and the end piece *h* at the points indicated at *o*, as shown in the drawings at Fig. 1. As the machine moves over the field danger is incurred of the pitman *l* striking against various obstructions, such as stones, stumps, &c. In case of such accident the front plate, *g*, prevents the pitman *l* from being bent and injured. Moreover, this plate *g*, with the other parts herein to be referred to, gives strength to the frame. The bolt or other device by which the front plate, *g*, is attached to the end piece *h*, is the pivot on which the plate *g* turns when the frame is turned up, as before described. It is to be understood that when the frame is thus turned up the end piece *h* remains flat and does not turn with it. The piece *e* extends from the shoe *s*—part of the end piece *f*—to the arm *t*, in which is inclosed the pitman *l*, before alluded to. A projection, *u*, receives a bolt, *v*, which both secures the piece *e* in place and acts as a pivot for it when the frame is turned up, as before stated. The part or piece *e* is also rigidly bolted to the part *d* at *o' o'*, as illustrated in the drawings. The end is bolted to the shoe *s* of the end piece *f* at *w*.

The cutters and cutter-bar are located as common in mowing-machines of this kind, and are in part exhibited in the drawings.

The cutters and cutter-bar can be both turned up in a vertical plane in front of the machine. First the cutters can be turned up and then the frame *c* be turned up, as a convenient mode of coming on and going from the field. None of these movements produces any strain on the pitman *l*; but it is capable of a free motion in any of them without injury to any of the parts. Thus the weight of these parts of the machine can be placed at the center of the machine at such times.

The great advantage resulting from my brace and its accompanying parts is that the strain resulting from the working of the machine in the field is made to operate at the center of the machine. There is no side draft. This is effected by the connection of the brace *a* with the axle of the machine and the two joints or pivots *u* and *h* of the piece *e* and front plate, *g*, in a line at the center of the machine with

the bolt *b* of the brace *a*. The machine is thus one which is operated with less labor than some others. The three joints and pivots described constitute a triple brace; and I am not aware of any other machine which exhibits that feature before mine.

I do not limit myself to any particular mode of uniting the front plate, the piece *e*, and part *d* together. They may, if practicable, be cast in one piece or united in any well-known method.

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

The brace *a*, having the lower and wide part, *d*, in combination with the front plate, *g*, the end pieces, *f* and *h*, the piece *e*, and the bolts and pivots *b* and *o*, constructed and arranged to operate as herein specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ARTHUR D. HAMLIN.

Witnesses:

WILLIAM HENRY CLIFFORD,

JOHN P. KERRIGAN.