W. A. WOOD.

Mowing-Machine.

No. 163,128. Patented May 11, 1875.

Fig. 1.

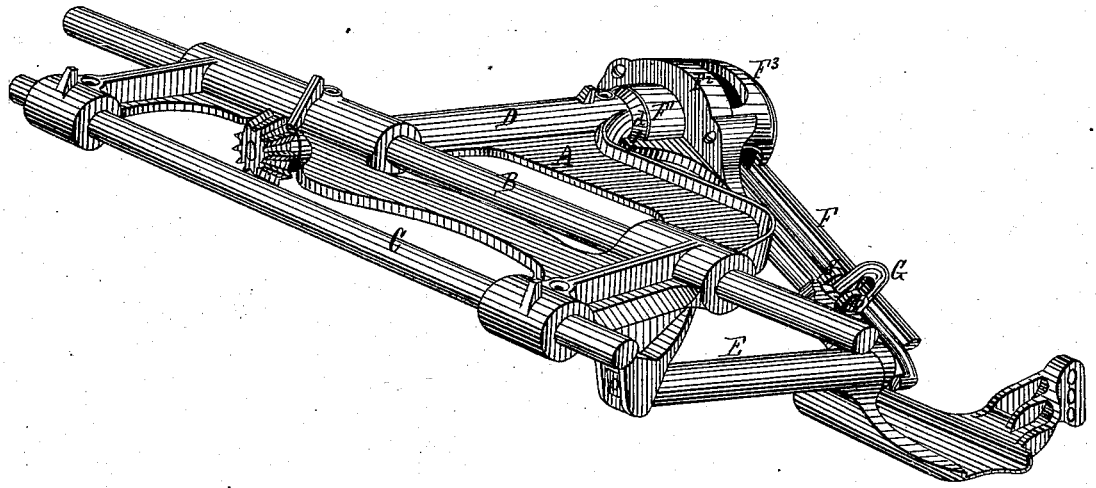


Fig. 2.

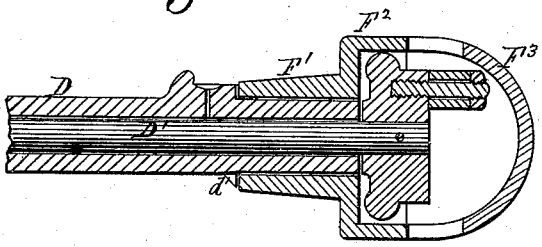
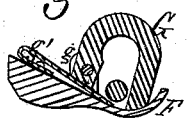


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM ANSON WOOD, OF ALBANY, NEW YORK.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **163,128**, dated May 11, 1875; application filed January 4, 1875.

To all whom it may concern:

Be it known that I, WILLIAM ANSON WOOD, of the city and county of Albany, and State of New York, have invented certain new and useful Improvements in Mowing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a perspective view of the main and cutter frames, taken from the inner grain side of the machine. Fig. 2 is a section through a portion of the crank-shaft sleeve, also the coupling-sleeve, crank-wheel, and crank-wheel guard; and Fig. 3 is a transverse section through the main brace or coupling-rod, showing the spring loop or latch through which the pitman plays, also in section.

The invention consists in providing the double-jointed coupling-arm, which connects the cutting apparatus with the main frame, with a forward extension, curved upward in front of the pitman, and a hemispherical shield vibrating with the coupling-arm, whereby the crank-wheel and pitman are protected, as will be explained; and to a novel device for holding the pitman in proper position and guiding the same when making its stroke, all as hereinafter explained.

In the accompanying drawings, A represents the main frame; B, the axle; C, the secondary or bevel-wheel shaft; D, the crank-shaft sleeve; D′, the crank-shaft, and E the thrust-brace. F is the coupling-rod or main brace, which is provided at its inner end with a hub or sleeve, F^1, which is mounted on the lower or forward end of the crank-shaft sleeve D in such manner as to be free to rotate thereon. The sleeve D, near its forward end, is provided with a flaring collar, *d*, against the forward face of which the inner or rear end of the hub or sleeve F^1 abuts. The hub F^1 has formed on its outer face a notched or recessed spur, *f*, which projects beyond the inner or rear face of the hub, said projecting end extending over the flaring collar, and conforming on its inner face to the external outlines, in cross-section, of said collar. The collar *d* is provided with a notch or slot, *d′*, on its lower side, which, when the coupling-arm is turned into a vertical position, permits the spur to pass through and beyond the collar; and when said coupling-arm is turned to its proper position to be connected with the shoe the spur or hook *f* engages with the collar, and holds the coupling-arm connected with the crank-shaft sleeve, at the same time permitting its free rotation thereon. The hub or sleeve F^1 is enlarged at its forward end, as shown at F^2, to receive the crank-wheel, and over the front of this crank-wheel is placed a hemispherical shield, F^3, secured to the part F^2 by bolts or otherwise, in such manner as to vibrate with the sleeve and coupling-arm to which it is connected, thus causing the slot or perforation through which the pitman works to maintain a uniform relation to the pitman-rod, while, at the same time, it effectually protects the crank from the straw or grass which might otherwise become wrapped around it. The coupling-arm is made in **U** form from the edge or rim of the hub or sleeve nearly to a point at which it intersects the shoe, at which point it is curved inward, and at its forward end is provided with a perforation, through which the end of the rod which supports the thrust-brace and shoe passes, being held connected therewith by means of a pin passing through the end of said rod. The coupling-arm F is provided, near its outer or swinging end, with lugs or ears *g g*, and between said lugs one arm of an inverted **U**-shaped loop, G, is pivoted, the opposite end, when the parts are in position, resting upon the face of the coupling-arm, and under which loop the pitman plays, the loop being pivoted in such manner as to permit it to be turned down upon its side for the insertion or removal of said pitman. Between the lugs *g*, and under the heel of the pivoted end of the loop, is placed a spring, *g′*, which, after the pitman is placed in position, and the loop is swung over it, serves to hold the forward end of said loop down upon the coupling-arm, thus preventing the accidental displacement of the pitman.

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

1. The double-jointed coupling-arm F, which connects the cutting apparatus with the main frame, provided with the sleeve F^1, connect-

ing it with the crank-shaft sleeve, and made to curve upward in front of and to form a shield for the pitman, and also provided with the hemispherical shield F^3, covering and protecting the crank-wheel, and vibrating with the coupling-arm, as described.

2. The pivoted guiding-loop G, applied to the coupling-arm F, and retained in position for guiding and holding the pitman-rod by means of the spring g', substantially as described.

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