

No. 738,364.

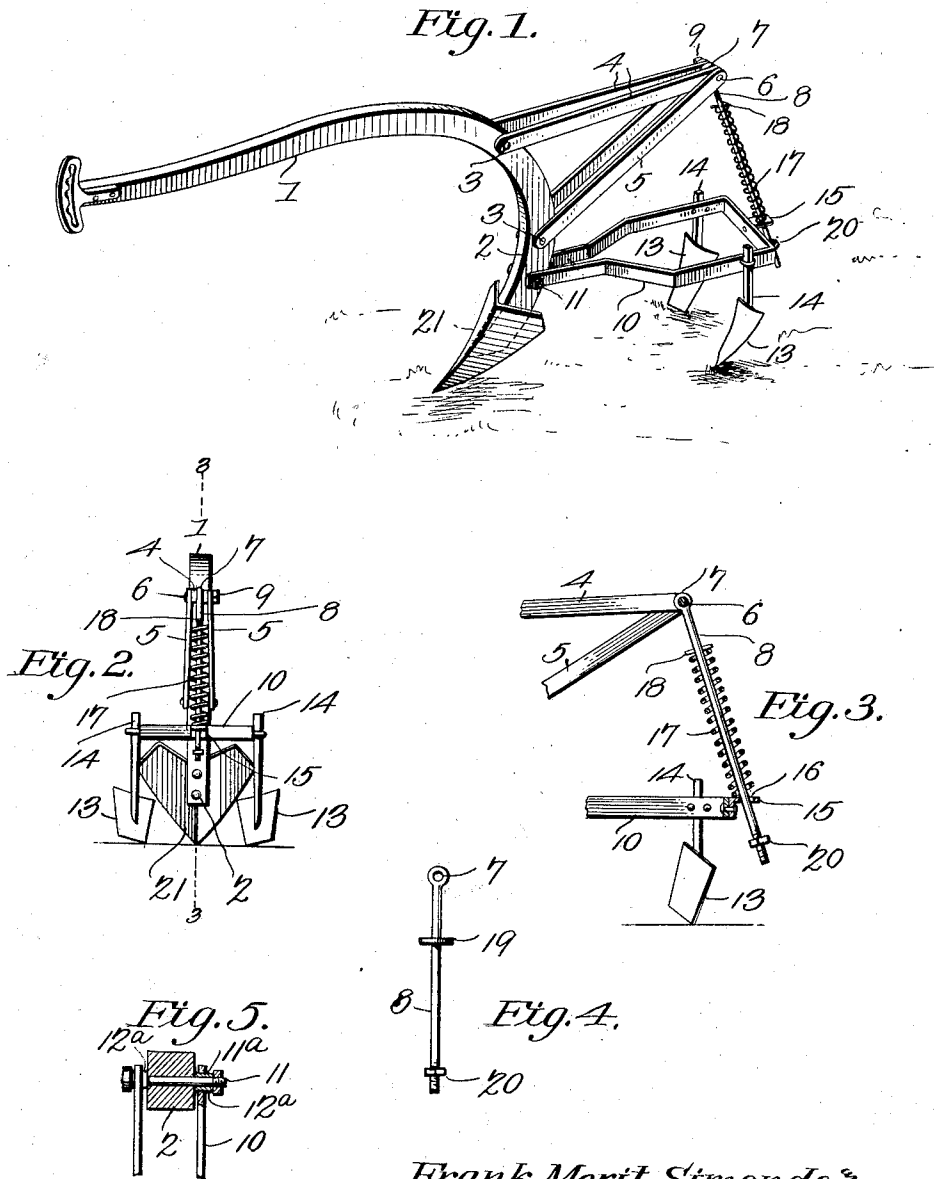
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ATTACHMENT FOR LISTERS.

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NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANK MERIT SIMONDS AND ALLEN LINCOLN BUTLER, OF ANSLEY,
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ATTACHMENT FOR LISTERS.

SPECIFICATION forming part of Letters Patent No. 738,364, dated September 8, 1903.

Application filed June 24, 1903. Serial No. 162,939. (No model.)

To all whom it may concern:

Be it known that we, FRANK MERIT SIMONDS and ALLEN LINCOLN BUTLER, citizens of the United States, residing at Ansley, in the county of Custer and State of Nebraska, have invented a new and useful Attachment for Listers, of which the following is a specification.

This invention relates to an improved attachment for listers, and especially to that class of listers which are used in connection with seed-planters for the purpose of opening the furrows. It has been customary to use in this connection covering-plows which have been connected with the lister beam or frame in some way, usually rigidly, to cause the coverers to follow behind the lister and to throw back into the furrow the earth excavated by the lister. By ordinary methods of construction these coverers will partake of every movement and vibration of the lister. Hence when the ground is rough or uneven or when ridges or ditches are encountered it has been found impossible to perform the work desired with the requisite degree of accuracy and perfection.

Our invention has for its object to provide an improved covering attachment for the lister frame or beam whereby the action of the coverers shall be rendered smooth and steady, while the lister-beam shall be free to vibrate or to move under the stress of the draft applied thereto.

With these ends in view our invention consists in the improved construction, arrangement, and combination of parts tending to produce a device which shall possess superior advantages in point of simplicity, durability, and general efficiency, as will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings we have shown a form of embodiment of our invention which is simple and serviceable; but we desire it to be understood that we reserve the right to make any desired alterations in the shape, proportion, and manner of assemblage of the component parts of the device which may lie within the scope of our invention.

In said drawings, Figure 1 is a perspective view showing a lister-beam equipped with our

improved attachment. Fig. 2 is a rear elevation. Fig. 3 is a sectional detail view taken on the line 3 3 in Fig. 2. Fig. 4 is a detail view showing a modified construction of the eyebolt forming a part of the invention. Fig. 5 is a detail sectional view taken through the plow-standard and a portion of the coverer-carrying frame.

Corresponding parts in the several figures are indicated by similar numerals of reference.

While our improved device is usually employed in connection with a corn-planter or seed-planter of some kind, we have not shown any such in the drawings, inasmuch as our invention relates solely to the covering attachment which is connected with the frame or beam carrying the lister.

1 designates the lister-beam, the construction of which is that of an ordinary plow-beam, which in the present instance is shown as provided with a downturned and forwardly-extending stock or standard 2 at the rear end thereof. Suitably secured to said stock or standard by means of bolts 3 3 are two pairs of braces 4 and 5, all of which converge rearwardly and are connected at their rear ends by means of a single bolt 6, the outer ends of the lower braces 5 being placed adjacent to the outer sides of the rear ends of the upper braces 4. The inner sides of said upper braces 4 are spaced by means of the eye 7 of an eyebolt 8, which is mounted upon the bolt 6, said eyebolt being thus practically pivoted or pivotally supported upon the bolt 6. The latter is provided at one end with a nut 9, whereby the parts are kept properly assembled.

10 designates the coverer-carrying frame, which is bent to a suitable shape, as indicated in the drawings, from a strap of iron of suitable dimensions, the side pieces of said frame being made to converge forwardly, so as to fit against the sides of the standard 2, with which they are suitably connected by means of a transverse bolt 11. The side pieces of the frame 10 are reamed out to form openings 11^a of sufficient size to accommodate sleeves or collars 12^a, which bear against opposite sides of the standard 2 and which are held securely in place by means of the con-

necting-bolt 11. It will be observed that by this construction the nut upon the bolt 11 may be tightly clamped to secure the parts together, while the frame 10 at all times has a free vibratory movement upon the sleeves 12^a. The covering-plows 13 are provided with shanks or standards 14, which are clamped upon or otherwise suitably connected with the sides of the frame 10, near the rear end of the latter. The rear side of said frame 10 is provided with an L-shaped bracket 15, which is riveted or otherwise suitably connected therewith and which is provided with an opening 16 for the passage of the lower end of the eyebolt 8.

17 is a spring coiled upon said eyebolt above the bracket 15 and between said bracket and a pin 18, extending transversely through the eyebolt, near the upper end of the latter, or the said eyebolt may be provided at this point with a collar, as shown at 19 in Fig. 4 of the drawings. The lower end of the eyebolt 8 is screw-threaded and provided with a nut 20, which is for the purpose of preventing the eyebolt from becoming disengaged from the bracket.

A listing-plow 21 of any approved pattern is to be mounted on the stock or standard 2.

The operation of this device and the advantages derived therefrom will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. It is well known and obvious that when an implement of this class is dragged over the field the beam of the lister is subject to not only horizontal but also lateral vibration at the front end thereof, owing to inequalities in the draft, to soil conditions, and to various other reasons which are well understood by farmers. Such vibrations are communicated to a considerable degree to the lister itself, and to even a greater degree to the covering devices which are usually connected therewith. By our improved attachment the covering-plows, which are connected with the frame 10, which latter is pivotally connected with the stock or standard, will be held to the ground by the pressure of the spring 17, and the said covering-plows will thus be held smoothly and evenly to their work. It will be observed that the eyebolt carrying the spring is connected with the lister-carrying beam in a secure and rigid manner, while the coverer-carrying frame is pivotally connected with said beam. Said frame will therefore not partake of the vibrations of the beam, but will be held evenly and steadily to its work, owing to the pressure of the spring 17.

Having thus described our invention, we claim—

1. A lister-beam having a standard, a plurality of braces connected with said standard and converging rearwardly, means for connecting the rear ends of said braces, a coverer-carrying frame connected pivotally with the standard below said braces, and a spring interposed between the brackets and the coverer-carrying frame and bearing downwardly upon the latter.

2. A lister-beam having a standard, pairs of braces extending rearwardly from said standard, a bolt connecting the rear ends of said braces, an eyebolt suspended from the said connecting-bolt, a coverer-carrying frame connected pivotally with the standard below the braces, a bracket upon said frame having an opening for the passage of the eyebolt, and a spring coiled upon the latter above said bracket.

3. A lister-beam having a standard, a plurality of pairs of braces converging rearwardly from said standard, a bolt connecting the rear ends of said braces, a coverer-carrying frame connected pivotally with the standard below the braces, connecting means mounted upon the bolt which connects the braces and having a slidable connection with the coverer-carrying frame, and a spring mounted upon said connecting means and exercising pressure in a downward direction upon the rear end of the coverer-carrying frame.

4. A lister-beam having a standard, rigid supporting means extending rearwardly from said standard, a coverer-carrying frame connected pivotally with the standard below the rigid supporting means, an eyebolt connected with the latter and having slidable connection with the coverer-carrying frame, a stop upon said eyebolt, and a spring coiled upon the latter below the stop and exercising the pressure in a downward direction upon the coverer-carrying frame.

5. A lister-beam having a standard, a coverer-carrying frame having converging sides disposed on opposite sides of the standard and provided with openings, sleeves seated in said openings, a bolt extending through the standard and through said sleeves and tightened against the latter, and spring means to force the free end of the coverer-carrying frame normally in a downward direction.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

FRANK MERIT SIMONDS.
ALLEN LINCOLN BUTLER.

Witnesses:

T. C. GIBSON,
C. S. ELISON.