No. 627,520. Patented June 27, 1899.

F. R. PACKHAM.

PRESS WHEEL ATTACHMENT FOR FURROW OPENERS.

(Application filed May 8, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1

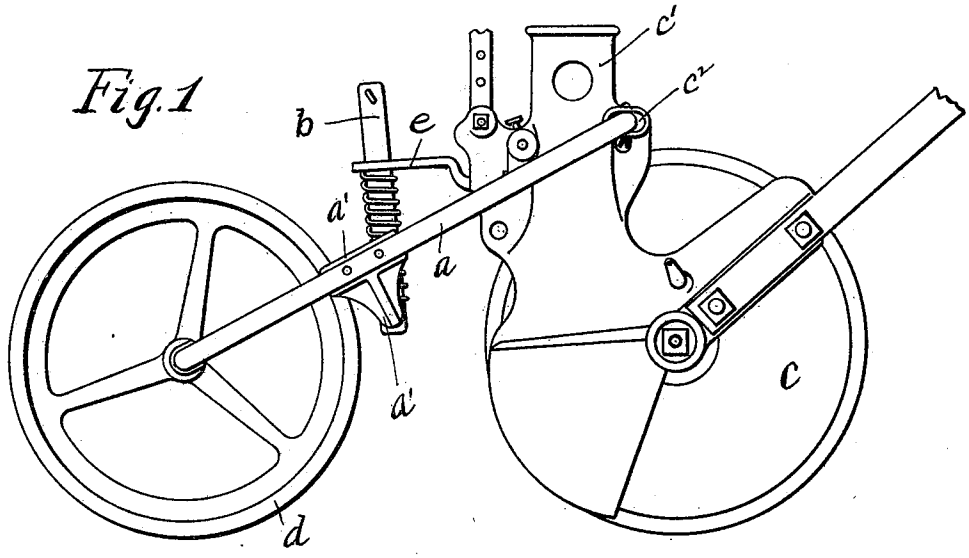


Fig. 2

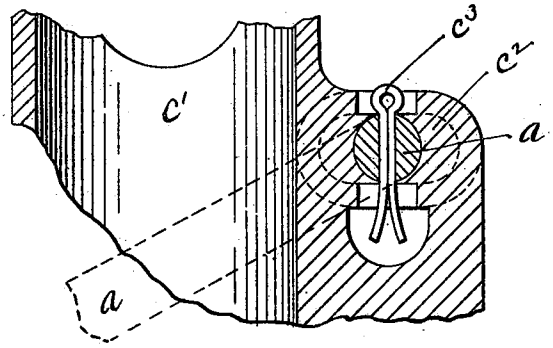


Fig. 3

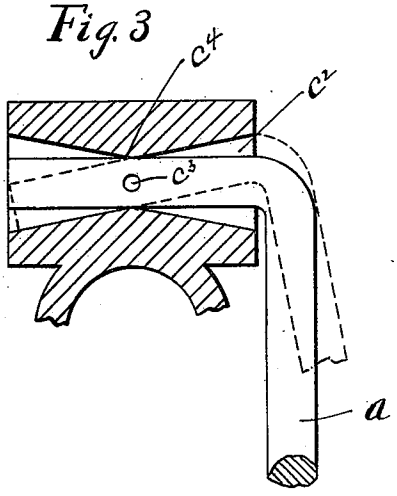
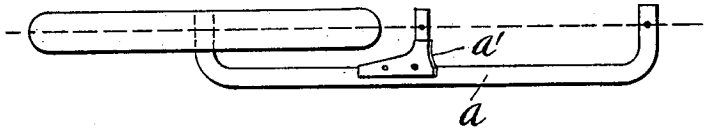


Fig. 4.



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No. 627,520. Patented June 27, 1899.

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(Application filed May 8, 1899.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 5

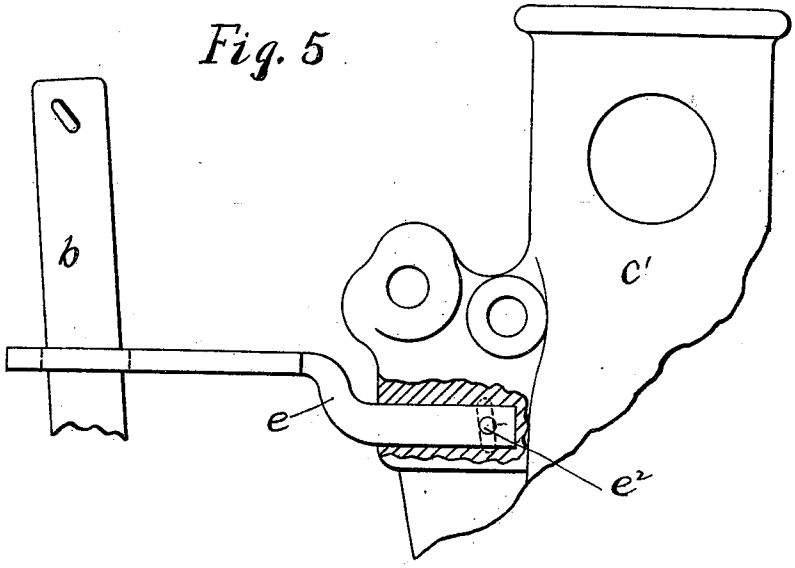


Fig. 6

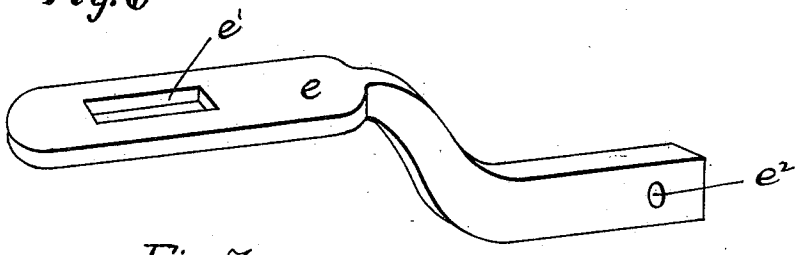
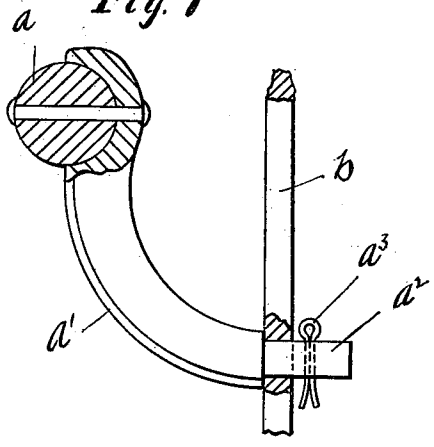


Fig. 7



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UNITED STATES PATENT OFFICE.

FRANK R. PACKHAM, OF SPRINGFIELD, OHIO, ASSIGNOR TO THE SUPERIOR DRILL COMPANY, OF SAME PLACE.

PRESS-WHEEL ATTACHMENT FOR FURROW-OPENERS.

SPECIFICATION forming part of Letters Patent No. 627,520, dated June 27, 1899.

Application filed May 8, 1899. Serial No. 715,944. (No model.)

To all whom it may concern:

Be it known that I, FRANK R. PACKHAM, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Press-Wheel Attachments for Furrow-Openers, of which the following is a specification.

My invention relates to improvements in press-wheel attachments for furrow-openers such as are used in grain-drills.

It preferably relates to press-wheel attachments for furrow-openers employing disks.

The principal object is to provide an attachment which will permit a lateral as well as a vertical movement of the press-wheel, providing for irregularities in the surfaces over which the wheel passes, and permitting the machine to turn on a much smaller radius than heretofore.

Figure 1 is a side elevation of the furrow-opener. Figs. 2, 3, and 4 are detail views of parts of the traction-bar and its connections. Figs. 5 and 6 are detail views of the removable trunnion-clip. Fig. 7 is a detail view of the journal by which the pressure-link is pivoted.

Like parts are represented by similar letters of reference in the several views.

In my device, *a* represents a traction-bar, with its ends curved at right angles to the bar and parallel to each other. Near the middle of said traction-bar there is attached a clip a', formed at its lower end with a journal a^2. The pressure-link *b* is formed with an opening at its lower end and is pivoted on said journal a^2, with a cotter a^3 holding it securely on said journal. The upper end of said traction-bar fits in an opening in the conduit c', said opening being elongated at its outer edges, but substantially round at its center, the said opening c^2 being elongated, as shown in Fig. 3. The center of the end of said traction-bar forms a contacting surface with the center of the opening c^2, said contacting surface being marked c^4 in Fig. 3. A cotter c^3 passes through the bar and holds said traction-bar securely in the opening c^2. By reason of the construction of the elongated outer edges of the opening with its center substantially round the traction-bar is allowed a lateral movement at its free end, and said traction-bar is further permitted a vertical movement at its free end by reason of this attachment in the opening c^2. The pressure-link *b* passes through the slot e' in a removable clip *e*, which clip is inserted in an opening in the conduit and fastened through an opening e^2, as shown in Figs. 5 and 6. The lower end of the traction-bar forms a journal for the press-wheel, and by reason of the construction shown the press-wheel follows in a direct line after the furrow-opener, as shown in Fig. 4. The journal-wheel, link, and upper part of the traction-bar being all pivoted in a direct line the press-wheel attachment will move in a direct line after the furrow-opener. From this construction it will be seen that the pressure-wheel may be readily lifted or moved laterally, and the pressure-link being pivoted in the manner shown and the traction-bar pivoted at its upper end in an elongated opening will compensate for any changes in the relative positions of said parts, preventing any cramping or twisting at the point where the upper end of the bar is attached.

Having thus described my invention, I claim—

1. The combination of a furrow-opener, a press-wheel and a bar curved at its two ends one of said ends forming a journal for the press-wheel and the other end thereof pivoted in an elongated opening in the conduit of the furrow-opener, a press-link pivoted to a clip attached near the center of said traction-bar and adapted to permit a vertical and lateral movement of said traction-bar.

2. The combination of a furrow-opener, a traction-bar and a press-wheel, an elongated opening in the furrow-opener and formed substantially round at its center forming a contacting surface for the upper curved end of said bar the lower end of said bar forming a journal for the press-wheel, a press-link pivoted to the bar near its center, said wheel, link and bar being pivoted in the same line.

3. The combination of a traction-bar with its ends curved at right angles, a press-wheel journaled to the lower end of said bar, a furrow-opener with an opening in the conduit

formed with its outer edges elongated but substantially round at its center forming a contacting surface for the upper end of said bar, a clip attached near the center of said bar, a press-link journaled on said clip and means for permitting a vertical and lateral movement of said press-wheel and its attachments.

In testimony whereof I have hereunto set my hand this 5th day of May, A. D. 1899.

FRANK R. PACKHAM.

Witnesses:
EARL G. WELCH,
CHAS. I. WELCH.