J. L. HARDEMAN.

Hemp Harvester.

No. 18,638. Patented Nov. 17, 1857.

Fig. 3,

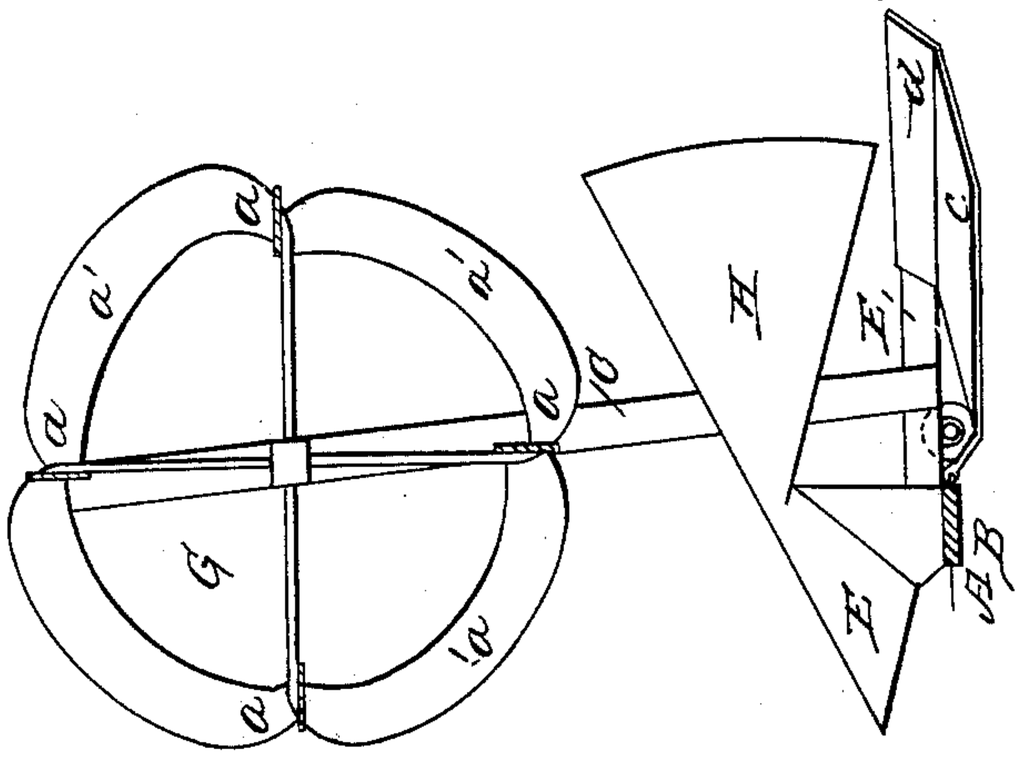
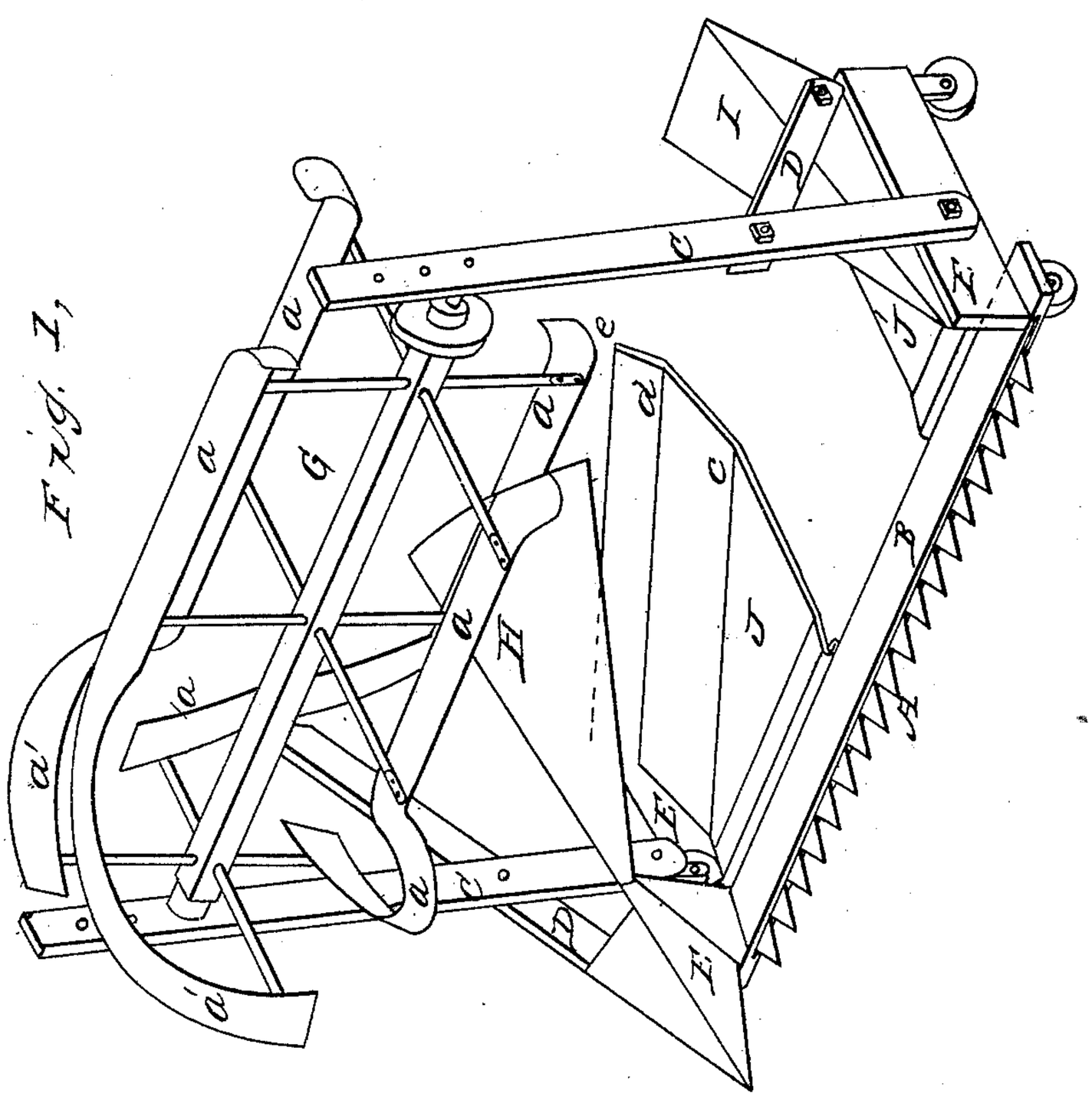


Fig. 1,



UNITED STATES PATENT OFFICE.

JOHN L. HARDEMAN, OF ARROW ROCK, MISSOURI.

IMPROVED HEMP-CUTTER.

Specification forming part of Letters Patent No. **18,638**, dated November 17, 1857.

To all whom it may concern:

Be it known that I, J. LOCKE HARDEMAN, of Arrow Rock, in the county of Saline and State of Missouri, have invented a new and useful Improvement in Hemp-Cutters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a hemp-cutter constructed with my improvements. Fig. 2 is a vertical longitudinal section of the same.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of my invention consists, first, in the hinged trailing hemp platforms approximating in form to a right-angle triangle, and made with an inclined elevation and guard, and arranged on both sides of the machine in such a manner that a broad central space shall be left for the cut hemp to be laid in out of the way of the team and the body of the machine by said platform, substantially as and for the purposes set forth.

My invention consists, second, in the employment of the peculiarly-constructed hemp-trailing platform J, in combination with the inwardly-inclining beveled directing-board H, arranged just above the trailing platform J for the purpose of directing the hemp angularly upon the platform, as presently described.

Third, it consists in the employment of a reel having its blades bent spirally at one end to their axle or shaft, in combination with the obliquely-set beveled directing-board and trailing platform, so that the hemp shall be drawn in and have a direction given to it which will insure its deposit in a proper manner upon the directing-boards, and from them onto the trailing platforms and from the same, which lay it in condensed swaths, butt-ends of the stalks forward, in the central space between the platforms and the path or paths of the horses.

The object of my improvement is to effect with a hemp-cutter the delivery of the hemp after it is cut in such a condition and in such relation to the team and the body of the machine that it shall not be trampled upon by the horses or distributed by the machine.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the cutter, and B the supporting-beam of the same; C C, the standards which support the reel; D D, braces or supports, and E framing to which the cutter and standards are attached.

G is the reel. Its shaft is hung in the upper part of the standards, and has suitable driving-pulleys arranged on it. This reel has each of its blades *a a a a* made straight along one half their length and bent spiral along the other half, as shown in the drawings at *a' a' a' a'*.

H I are two directing-boards, placed below and slightly in rear of the reel, H being set so as to incline inwardly from a line at right angles to the cutter-bar, and downward from a horizontal line, and I being set so as also to incline downward from a horizontal line, but not inward from a line at right angles to the cutter-bar. It may, however, be inclined both ways, the same as H, if desirable. The boards direct the grain upon the trailing platforms angularly, as will be described presently.

J J' are the trailing platforms, hinged to and trailing behind the cutter-beam B. These platforms may be solid or slatted. When slatted the slats are made of unequal lengths, so as to produce a platform of a triangular shape. The slats are also bent upward from *c* to *d*, so as to give the platform the elevation of a slightly-inclined plane, and then from *d* to *e* in such a manner as to increase the elevation nearly or quite to a perpendicular, and thus form a fencing or guard which will prevent the escape of the hemp at any point except at the inner sides of the platforms. When the platforms are solid they possess all the essential qualifications of the slatted ones, their general form approximating to a right-angle triangle having its hypotenuse or longest side turned up as an elevated guard or flange. It is by thus shaping the platform and presenting a wedge-like vertical plane that the hemp is directed off to the inner sides of the platforms as it is drawn forward with the progress of the machine, and made to lie in swaths, with the butts of stalks forward, nearly at right angles with the cutter-bar and in the central space between the platforms.

Operation: The machine being moved forward, the reel bends down the hemp, and simultaneously therewith the cutter cuts it down, when it is carried under the reel and directed centerward by the spiral portion of the blades

onto the oblique bevel directing-boards, by which it is directed angularly upon the triangular trailing platforms, which, as the machine progresses forward, effect by their angular flange the discharge of the hemp in swaths from the inner sides of the platforms, and in the central space, where the team never treads or the body of the machine liable to disturb it. It should be observed that the butt-ends of the hemp-stalks first rest after falling from the directing-boards at the outer narrow ends of the platforms, and that consequently the hemp is supported until it is carried forward sufficiently far to be discharged in a line parallel with the course of the team, and thus a space is cleared wide enough for the machine to pass between the standing and the cut hemp, in which space one-half the team also walks.

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

1. The hinged trailing hemp-platforms approximating in form to a right-angle triangle and made with an inclined elevation, *c d*, and guard *e*, and arranged in rear of the cutter-beam on both sides of the machine in such a manner that a broad central space shall be left for the cut hemp to be laid in out of the way of the team and the body of the machine by said platforms, substantially as and for the purposes set forth.

2. The employment of the peculiarly-constructed hemp trailing platform J, in combination with the inwardly-inclining beveled directing-board H arranged just above the trailing platform for the purpose of directing the hemp angularly upon the platform, substantially as herein described.

3. The employment of a reel having its blades bent spirally at one end to their axle or shaft, in combination with the inwardly-inclining directing board or boards and trailing platform or platforms, substantially as and for the purposes set forth.

The above specification of my improvement in hemp-brakes signed and witnessed this 11th day of September, 1857.

J. LOCKE HARDEMAN.

Witnesses:

GOODWIN Y. ATLEE,

R. W. FENWICK.