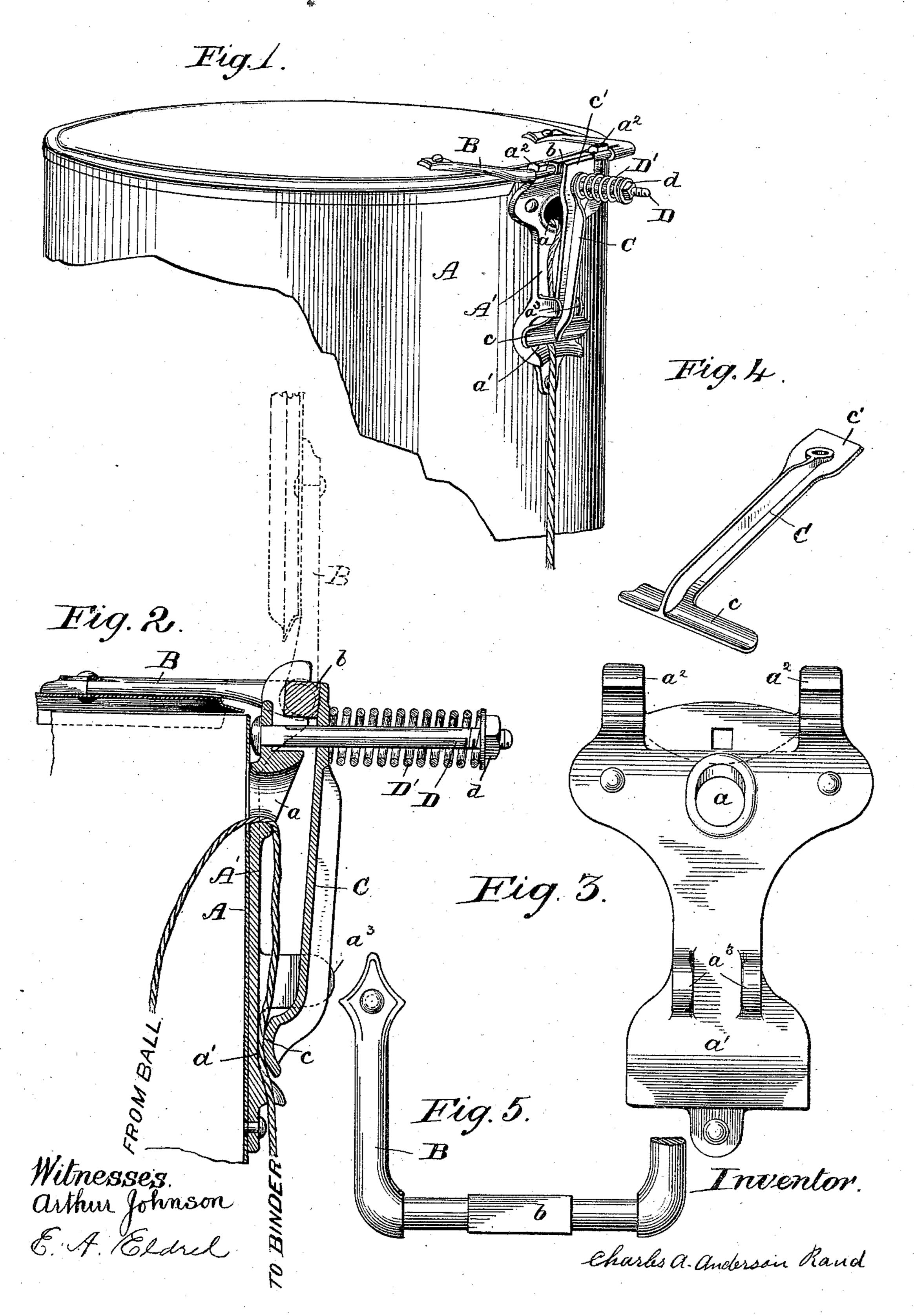
(No Model.)

C. A. A. RAND.

TWINE BOX AND TENSION FOR SELF BINDING HARVESTERS.

No. 526,459.

Patented Sept. 25, 1894.



THE NORRIS PETERS CO., PHOTO-LITHO, WASHINGTON, D. C.

## United States Patent Office.

CHARLES A. ANDERSON RAND, OF CHICAGO, ILLINOIS.

## TWINE-BOX AND TENSION FOR SELF-BINDING HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 526,459, dated September 25, 1894.

Application filed July 25, 1894. Serial No. 518,599. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. ANDERSON RAND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Twine-Boxes and Tensions for Self-Binding Harvesters, of which the following is a description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of as much of a twine box as necessary to show my invention; Fig. 2, a side sectional elevation of same parts. Figs. 3, 4 and 5 are detail views of the parts of the box hinge and tension.

The object of my invention is to obtain a device secured to the can that shall apply tension upon the twine as it is drawn therefrom; and that shall hold the can lid firmly in its open and closed position.

The twine can A may be considered as of the usual kind, and having any convenient location on the machine in order that twine may be drawn therefrom by the automatic binding attachment. A tension plate A' se-25 cured to the side of the can A, has an aperture a, and a surface a', preferably raised, and against which the twine may be drawn, the said aperture matching a similar aperture in the said can. This plate serves as the sta-30 tionary part of the hinge by having notched lugs  $a^2$ , in which the cylindrical portions of the removable hinge piece B, secured to the can lid, may lie. A tension bar C is held to the plate A' by a bolt D having an adjust-35 ment nut d, and a spring D', or by any other l

well known means. The lower part of this bar is adapted to apply the required pressure upon the twine to give the proper tension. I throw the lateral extensions c, which press upon the twine as it passes over the pad a', 40 the amount of tension being regulated by means of the adjustment nut d acting upon the spring D'. The upper end c' holds the movable hinge piece B in the concaved projections  $a^2$ , and the part b of the said hinge 45 is so shaped that the said bar C presses thereagainst, holding it in either its closed or opened position. As shown in Fig. 2 this result is obtained by making the part b square in cross-section. The wings a<sup>3</sup> preferably cast 50 upon the plate A' serve to hold the tension bar C in place, and prevent the twine from escaping laterally.

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

The combination of the plate A' having the notched lugs and the tension pad a', with the hinge B, and the tension bar C having the pad c adapted to co-operate with the pad a' and act as a tension, and the part c' adapted 6c to press upon and hold the hinge b in place, and the spring D' suitably supported and adapted to force the bar C against the said hinge and tension pad, substantially as described.

CHARLES A. ANDERSON RAND.

Witnesses: M. E. HOLTON,

J. F. STEWARD.