

No. 898,329.

PATENTED SEPT. 8, 1908.

C. J. COULTER & E. TUGGY.
AUTOMATIC HOOK.

APPLICATION FILED JULY 17, 1907.

2 SHEETS—SHEET 1.

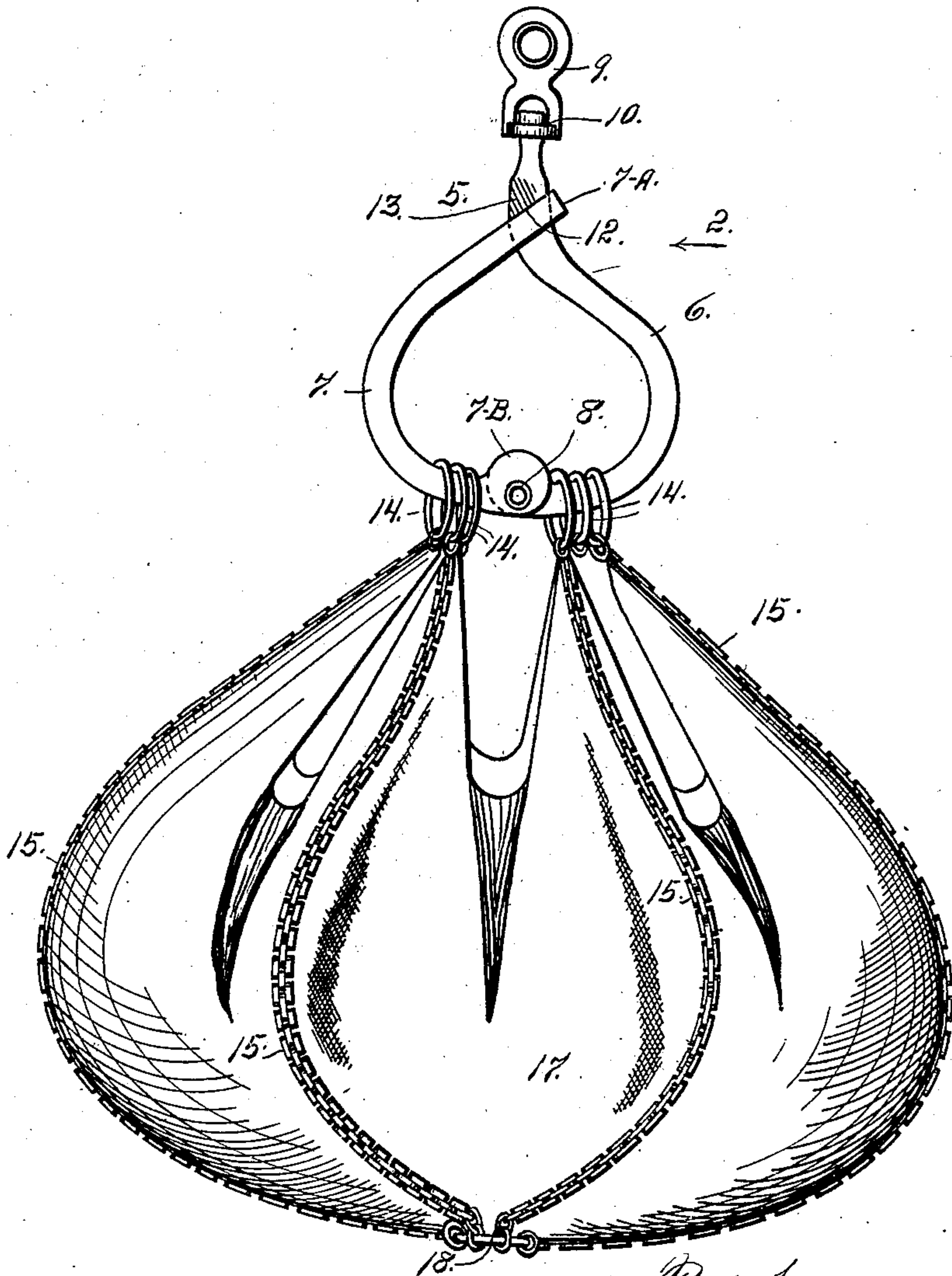


Fig. 1.

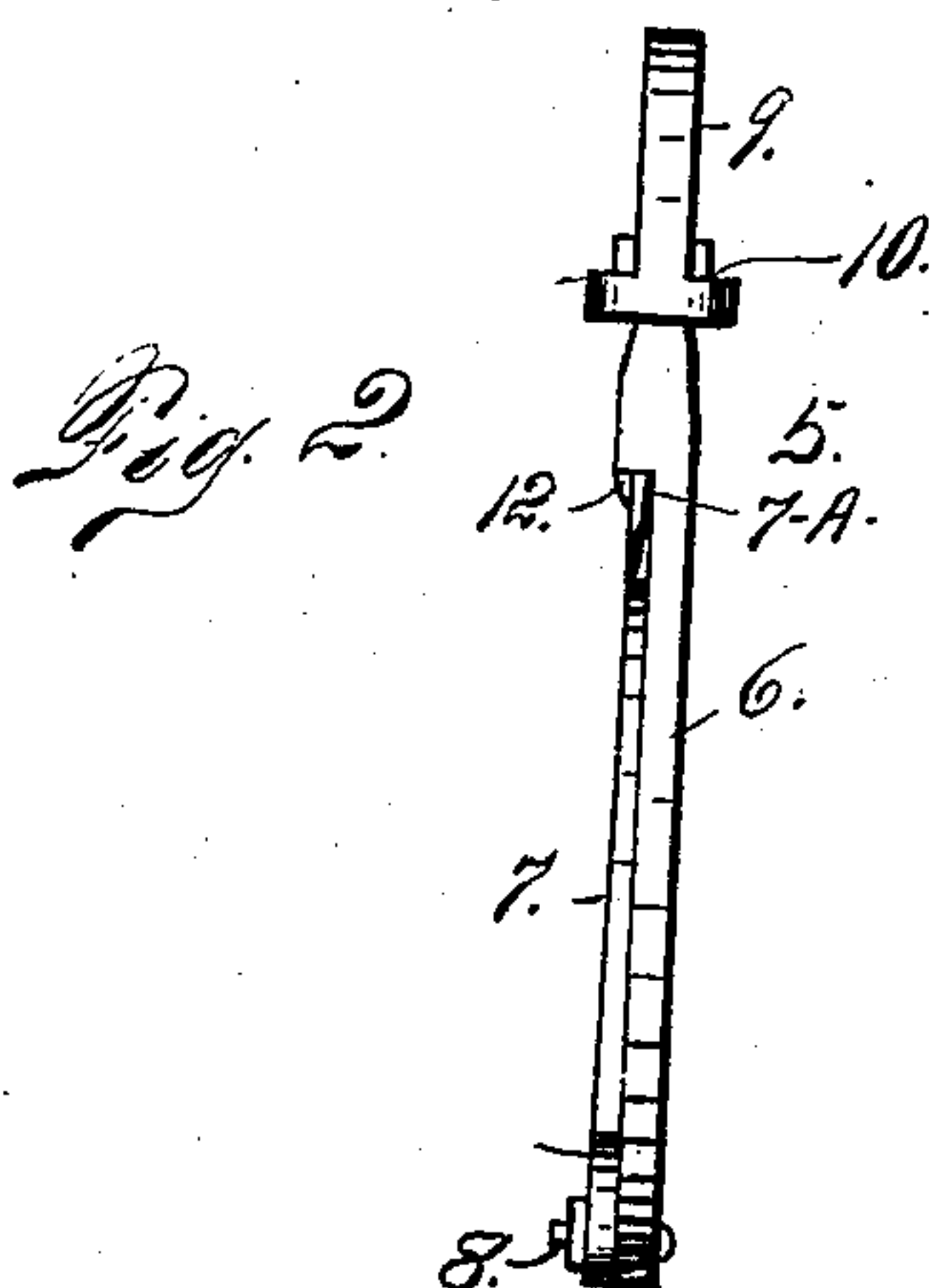


Fig. 2.

Witnesses
Otto C. Haddock.
Dena Nelson.

Charles J. Coulter.
Edward Tuggy.
Inventors

By *A. J. [Signature]*
Attorney

No. 898,329.

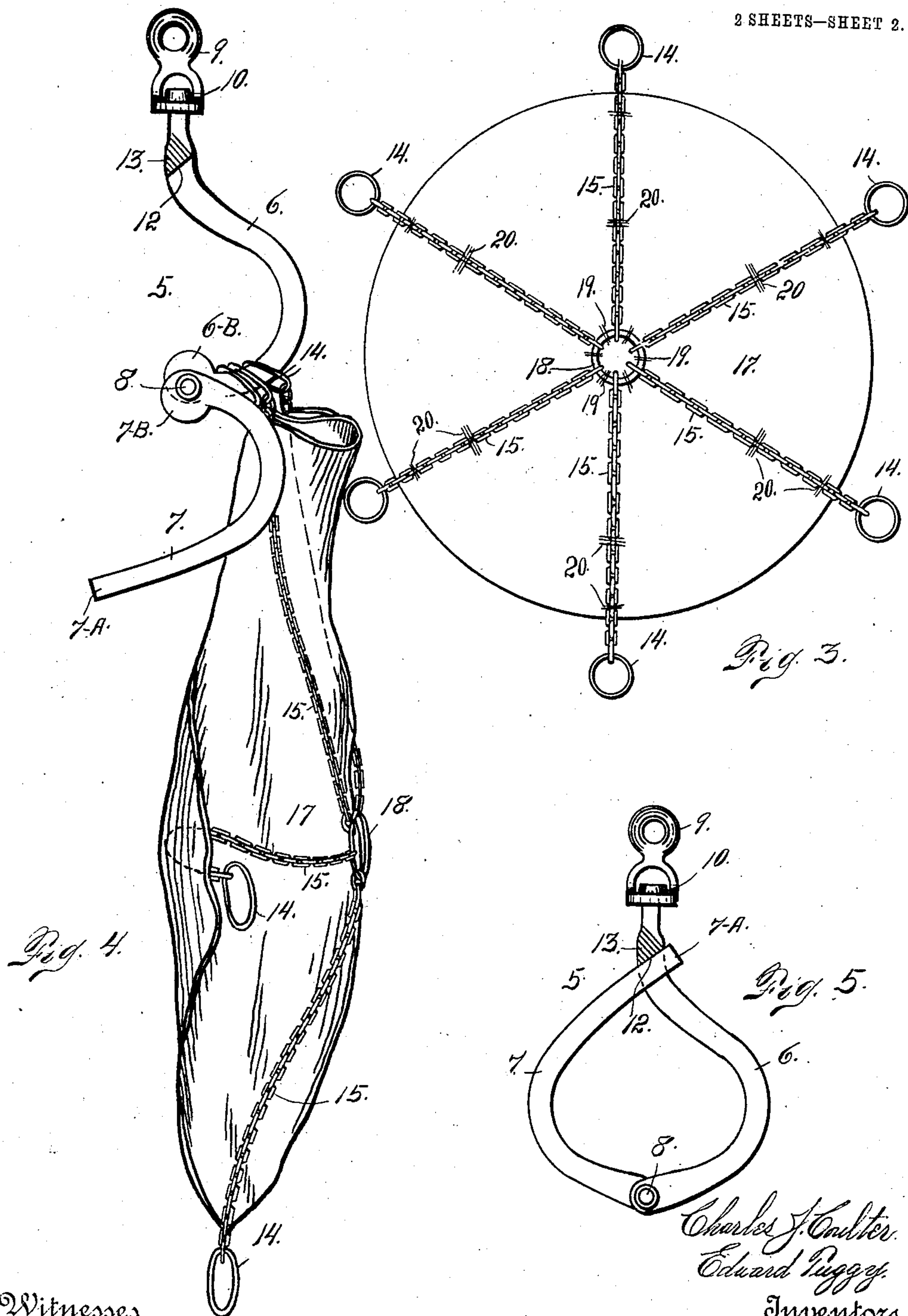
PATENTED SEPT. 8, 1908.

C. J. COULTER & E. TUGGY.

AUTOMATIC HOOK.

APPLICATION FILED JULY 17, 1907.

2 SHEETS—SHEET 2.



Witnesses
Otto C. Haddick.
Dena Nelson.

Charles J. Coulter.
Edward Tuggy.
Inventors

By *W. H. Brown*
Attorney

UNITED STATES PATENT OFFICE.

CHARLES J. COULTER AND EDWARD TUGGY, OF LONGMONT, COLORADO, ASSIGNORS OF ONE-THIRD TO OSWELL T. ELLIS, OF GOLDEN, COLORADO.

AUTOMATIC HOOK.

No. 898,329.

Specification of Letters Patent.

Patented Sept. 8, 1908.

Application filed July 17, 1907. Serial No. 384,283.

To all whom it may concern:

Be it known that we, CHARLES J. COULTER and EDWARD TUGGY, both citizens of the United States, residing at Longmont, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Automatic Hooks; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in hooks more especially adapted for use in automatically dumping the contents of a flexible receptacle.

The device is more especially intended for use in connection with the gathering of beets or other similar vegetables and is particularly adapted for use in connection with a loading attachment for wagons set forth in a simultaneously pending application. The device, however, is not limited to this use but may be put to a great variety of uses. It will, however, be described with reference to its use in connection with a flexible holder for beets or other vegetables, the said holder having rings through which the hook is passed. As shown in the drawing this flexible device may be composed of canvas or other suitable material and it may be of circular shape when spread out. A ring is attached to the center of it and from this ring lead chains which extend radially beyond the circumference of the canvas, their outer extremities being equipped with rings. The chains may be connected with the canvas at a number of points and any desired number of the chains may be employed. The hook is composed of two members, one of which is adapted to swing downwardly when released from the engaging shoulder of the other member. When the movable member swings downwardly, a portion of the rings of the flexible receptacle slip off, thus allowing a part preferably about half of the flexible receptacle to swing downwardly whereby the vegetables are discharged into the wagon body (not shown) or other receptacle.

Having briefly outlined our improved construction, we will proceed to describe the same in detail reference being made to the

accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a view of our improved hook shown in connection with a canvas receptacle of the character heretofore described. In this view the device is shown in elevation. Fig. 2 is an edge view of the hook, or a view looking in the direction of arrow 2 in Fig. 1. Fig. 3 is an underneath view of the canvas receptacle shown in its extended or outstretched position. Fig. 4 is an elevation showing the position of the mechanism after the released member of the hook has moved downwardly to allow the contents of the canvas receptacle to slip therefrom. Fig. 5 is a detail elevation of the hook showing a slightly modified form of construction.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate our improved hook considered in its entirety. This hook is composed of two members 6 and 7 pivotally connected at their lower extremities as shown at 8. The upper extremity of the member 6 is connected with a supporting eye 9 by a swiveled connection 10, whereby the hook may swing freely on a vertical axis when suspended from the said eye. The upper portion of the member 6 below the eye is provided with a shoulder 12 adapted to form a stop for the upper extremity 7^A of the member 7. The member 7 is composed of spring metal. Adjacent the shoulder 12 and just above the same, the member 6 is beveled as shown at 13, whereby as the extremity 7^A of the hook is pressed against the said beveled surface 13, the member 7 will be caused to spring laterally until it passes said surface when it will spring against the member 6 and engage the shoulder 12, thus locking the member 7 in the closed position (see Fig. 1).

In the form of construction shown in Figs. 1, 2 and 4, the pivoted extremities of the hook members 6 and 7 are provided with lugs 6^B and 7^B, respectively, which serve to separate the two sets of rings 14 connected with the chains 15 of a canvas receptacle 17, when the hook members are in the closed position as shown in Fig. 1. The lug 6^B also prevents a portion of the rings 14 from slipping off the hook members 6, when the hook member 7 swings downwardly allowing the other rings to slip off whereby the load carried by the canvas receptacle is discharged.

Let the numeral 18 designate the central ring with which the inner extremities of the radial chains 15 are connected. This ring is connected with the canvas as shown at 19, while the chains are connected with the canvas as shown at 20.

When the device is in use, half of the chains 14 are slipped upon the hook member 6, the hook being lowered to allow the canvas receptacle 17 to be spread out upon the ground. The latter is then filled with beets, or other vegetables or articles which it may be desired to raise. The other three rings 14, are then placed over the hook member 7, after which the latter is raised to engagement with the shoulder 12 of the member 6. This is done when the parts are in such relative position, that it is not necessary to lift any portion of the load in order to connect the rings with the hook. The hook is then elevated by means of any suitable power and swung into position for the discharge of its contents into a wagon or other receptacle or location. When this is done the part 7^A of the member 7, is pushed laterally sufficiently to disengage it from the shoulder 12, when the gravity of the load acting on the hook member 7 causes the latter to swing downwardly to the position shown in Fig. 4 allowing the contents of the receptacle to slip out.

In the form of construction shown in Fig. 5, the lugs 6^B and 7^B of the hook members are absent, since it may be desired to allow the entire package raised by the hook, to slip therefrom.

Having thus described our invention, what we claim is:

1. A hook consisting of two members pivotally connected at their lower extremities, one of the members having a beveled face, and an adjacent shoulder whereby the two

hook members are adapted to automatically interlock, one of the members being composed of spring material to allow it to yield laterally as it engages the beveled face of the other member, substantially as described.

2. A hook composed of two members pivotally connected at their lower extremities, the upper portion of one member being provided with an interlocking shoulder, adapted to engage the free extremity of the other member, the shouldered member having a beveled portion adjacent the said shoulder causing the other member to yield laterally as it is pressed into interlocking engagement with the first named member, substantially as described.

3. A hook composed of two members pivotally connected, one of the members being shouldered and provided with an adjacent beveled face to automatically interlock with the other member as the latter is properly actuated, the shouldered member having an upwardly projecting separating lug formed on its pivoted extremity for the purpose set forth.

4. A hook composed of two members pivotally connected, one of the members being shouldered and beveled to automatically interlock with the other member as the latter is properly actuated, the pivoted extremities of the two members being provided with lugs both of which project upwardly when the hook is in the closed position, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES J. COULTER.
EDWARD TUGGY.

Witnesses:

DENA NELSON,
A. J. O'BRIEN.