

No. 696,189.

Patented Mar. 25, 1902.

W. F. PILLMORE & D. ANDEREGG.

BEAN SEPARATOR.

(Application filed Sept. 13, 1901.)

(No Model.)

Fig. 1.

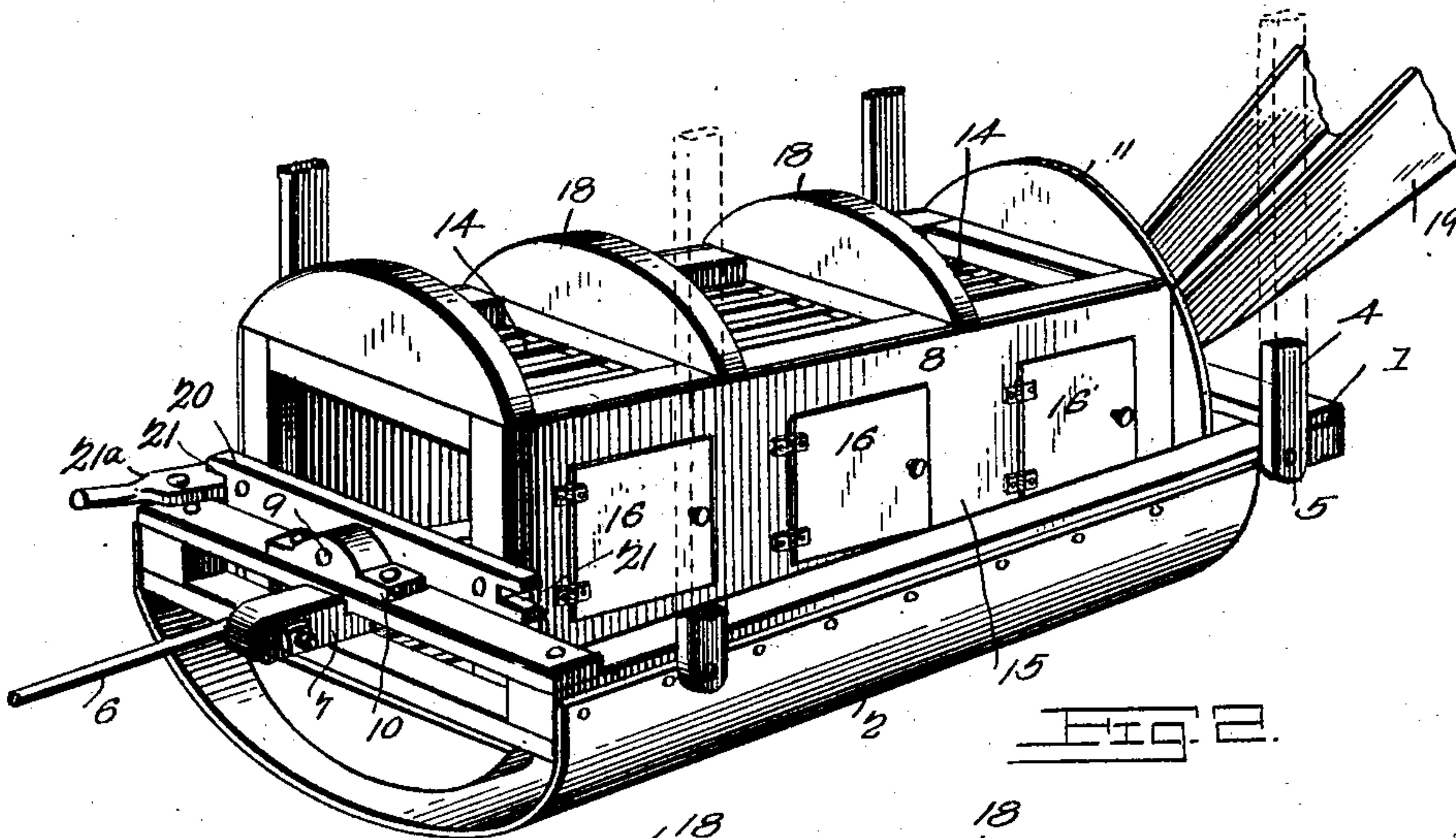


Fig. 2.

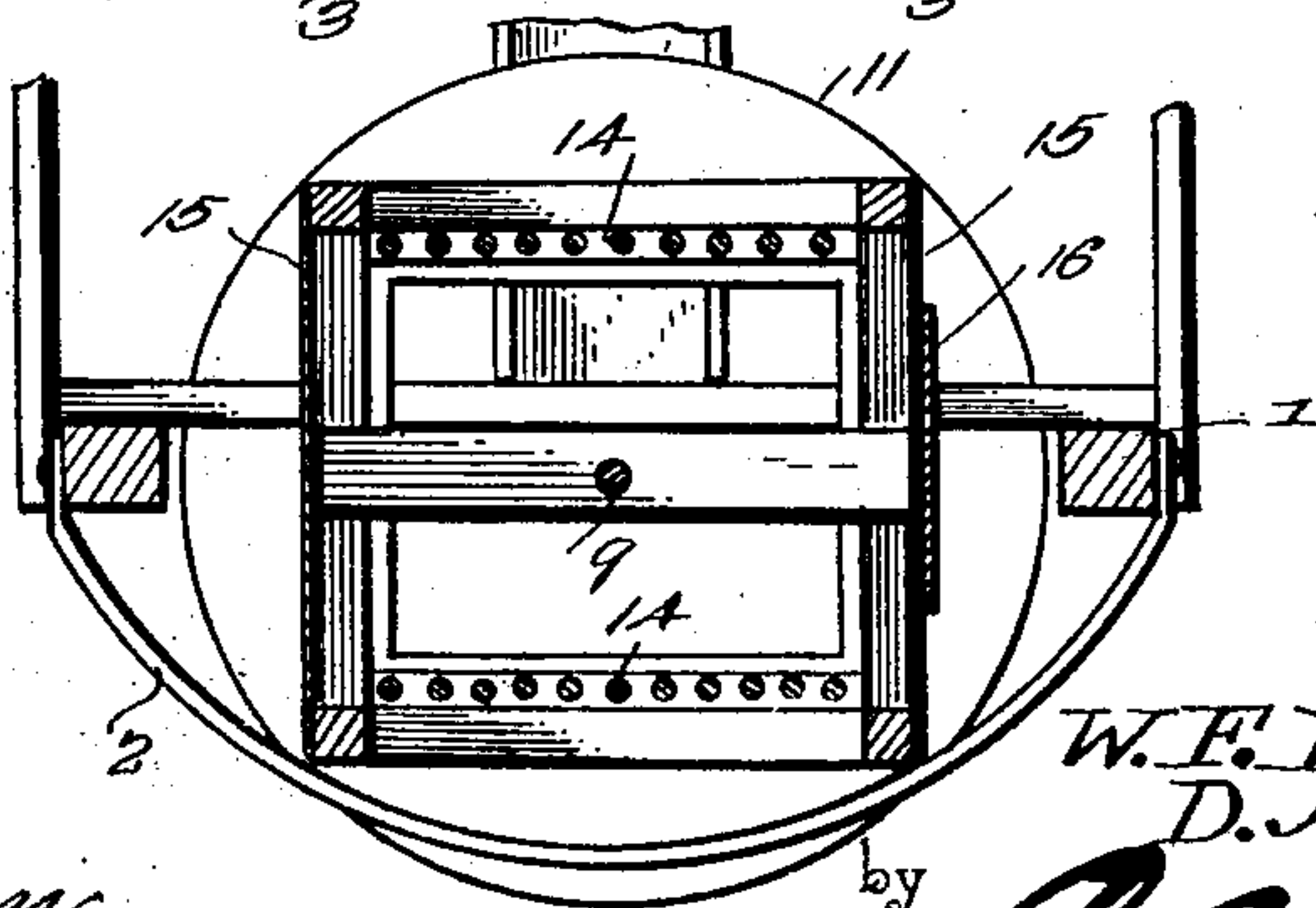
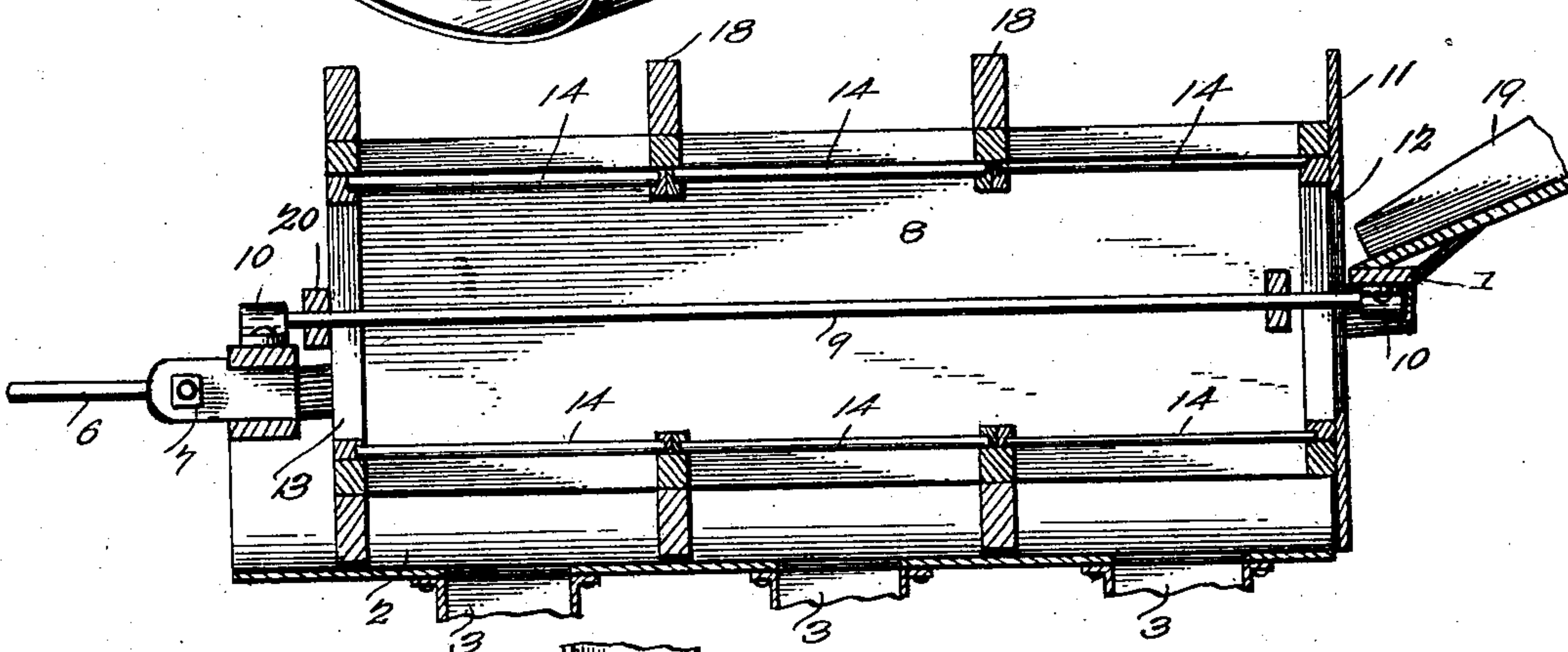


Fig. 3.

Witnesses

F. E. Alden
J. O. Garner

W. F. Pillmore & D. Anderegg, Inventors.

C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM F. PILLMORE AND DAVID ANDEREGG, OF WESTERVILLE,
NEW YORK.

BEAN-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 696,189, dated March 25, 1902.

Application filed September 13, 1901. Serial No. 75,336. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM F. PILLMORE and DAVID ANDEREGG, citizens of the United States, residing at Westernville, in the county of Oneida and State of New York, have invented a new and useful Bean-Separator, of which the following is a specification.

Our invention is an improved separator especially adapted for separating and sizing green beans; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

One object of our invention is to provide a separator of the class referred to with a reversible box having screens on opposite sides by means of which when the screens on one side of the box become clogged with beans the box may be reversed in order to clear the clogged screens by causing the beans to drop therefrom onto the screens below.

A further object of our invention is to effect improvements in the construction of the reversible box and hopper which is combined therewith and is provided with discharge-spouts for the delivery of the assorted beans.

In the accompanying drawings, Figure 1 is a perspective view of a bean-separator embodying our improvements. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view of the same.

In the embodiment of our invention we provide a supporting-frame 1, on the lower side of which is an approximately semicylindrical hopper 2, which is provided with a series of discharges 3, appropriately spaced apart. Preferably the said frame 1 is suspended from a suitable overhead support, (not shown,) which may consist of a suitable framework or the joists of a building, by hangers 4, the upper ends of which are pivotally suspended from the overhead support and the lower ends of which are pivotally connected to the sides of the frame, as at 5. Preferably the said frame 1 is vibrated, and within the scope of our invention any suitable means may be employed to impart vibratory motion to the frame. We here show a pitman-rod 6, connected to one end of the frame, as at 7, for this purpose, the form of

our invention here shown being adapted for longitudinal vibration.

A box or body 8 is disposed longitudinally in the frame 1, has an axial support 9, and the said axial support is journaled at its ends in bearings 10, with which the frame 1 is provided. The ends or heads of the said box or body are circular in form, as at 11, and the said heads are provided, respectively, with an inlet-opening 12 and a discharge-opening 13. Preferably the said box or body is angular in cross-section, as shown, and is provided in opposite sides with series of sieves 14 of varying sizes, the meshes or interstices of the sieves becoming larger as they approach the rear or discharge end of the box or body. Any suitable number of these sieves may be employed according to the number of grades or sizes into which it is desirable to separate or assort the beans. Between the screens in opposite sides of the box or body the same is provided with closed sides 15, which are preferably provided with doors 16 to admit access to the interior of the box or body. The said screens are separated from each other by partitions 18, which project beyond the screened sides of the box or body and are curved to conform to the shape of the hopper 2, so that such of the said partitions as are on the lower side of the box or body coact with the heads 11 and with the hopper to divide the latter into compartments, which keep the beans separated as they are discharged through the screens on the lower side of the box or body and while they are passing to the discharges 3. The beans are fed to the box or body through the opening 12 by a chute or other suitable device 19. The larger-size beans fail to pass through any of the screens on the lower side of the box or body and are discharged therefrom through the opening 13. It will be understood that inasmuch as the box or body is provided on opposite sides with series of screens when the screens in the lower side of box become clogged with beans the box may be reversed to cause the beans to drop from the clogged screens and to bring the oppositely-disposed screens into operation.

Within the scope of our invention any suitable means may be employed for locking the

box or body in operative position. We show at the discharge end thereof a cross-bar 20, having notches 21 in its ends, which project beyond the closed sides of the box or body, and a latch 21^a, which is fulcrumed on the frame 1 to engage the said notches, and thereby lock the reversible screened box in either position.

Having thus described our invention, we claim—

1. In a separator of the class described, the combination with a reversible screen box or body mounted for rotation and having screens on opposite sides thereof, and outwardly-projecting partitions dividing the respective screens on the opposite sides of the box or body, said partitions having curved outer sides concentric with the axis of the box or body, of a hopper having a curved bottom, and disposed under the box or body and on which the projecting partitions bear, said partitions dividing the hopper into compart-

ments, and said hopper having discharges for the respective compartments thereof, substantially as described.

2. In a separator of the class described, the combination of a supporting-frame, a concave hopper depending therefrom having a series of discharges, and a reversible screen box or body mounted axially on said frame, and provided with a series of screens and partitions between said screens projecting from said box or body and having their outer sides curved to correspond with the shape of said hopper, for the purpose set forth, substantially as described.

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

WILLIAM F. PILLMORE.

DAVID ANDEREGG.

Witnesses:

JOHN W. STRETTON,

ROBERT W. MIDLAM.