

No. 849,452.

PATENTED APR. 9, 1907.

E. E. ZIEGENFUSS.
PACKING AUGER.
APPLICATION FILED JUNE 6, 1906.

FIG. 1.

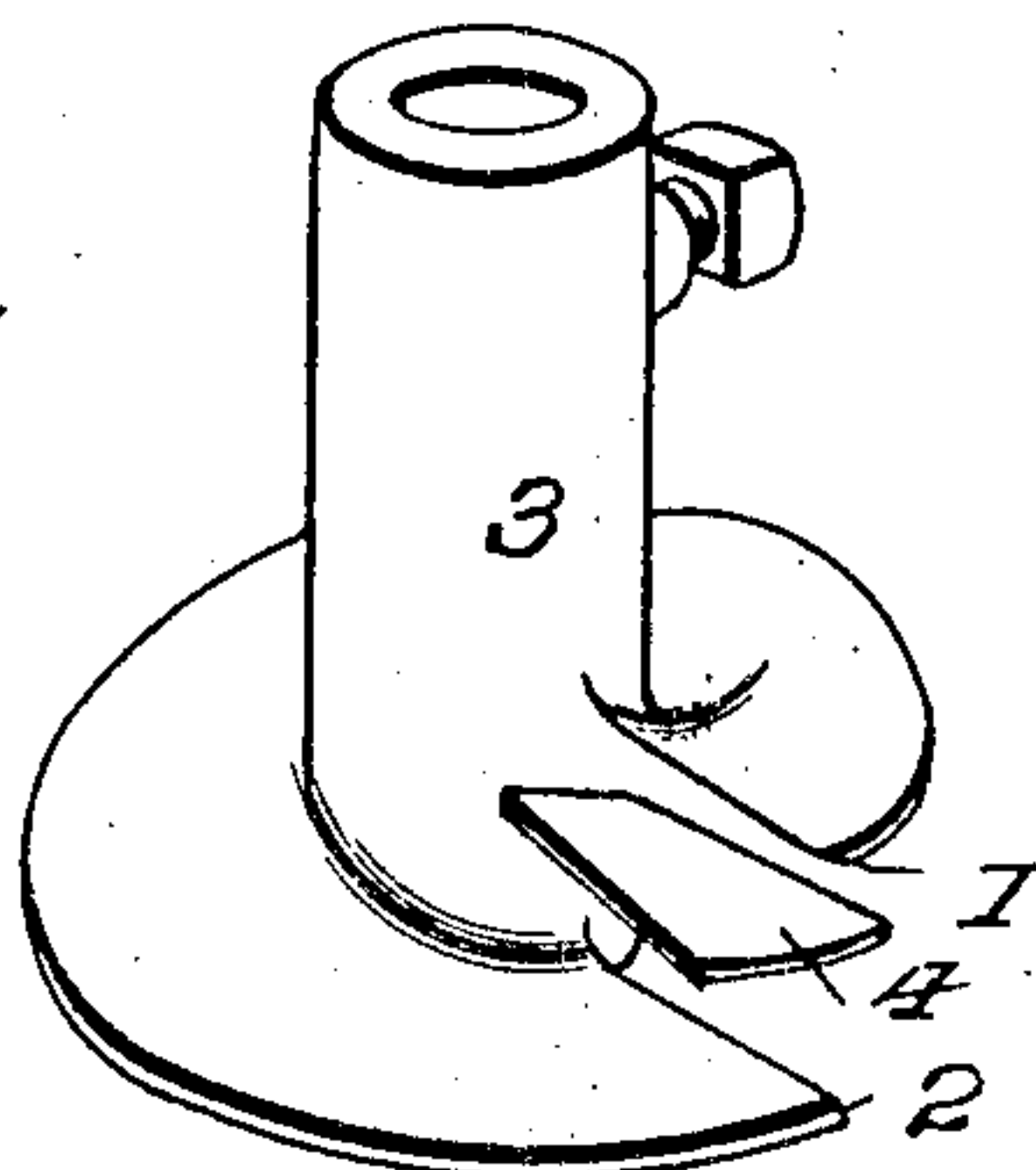


FIG. 2.

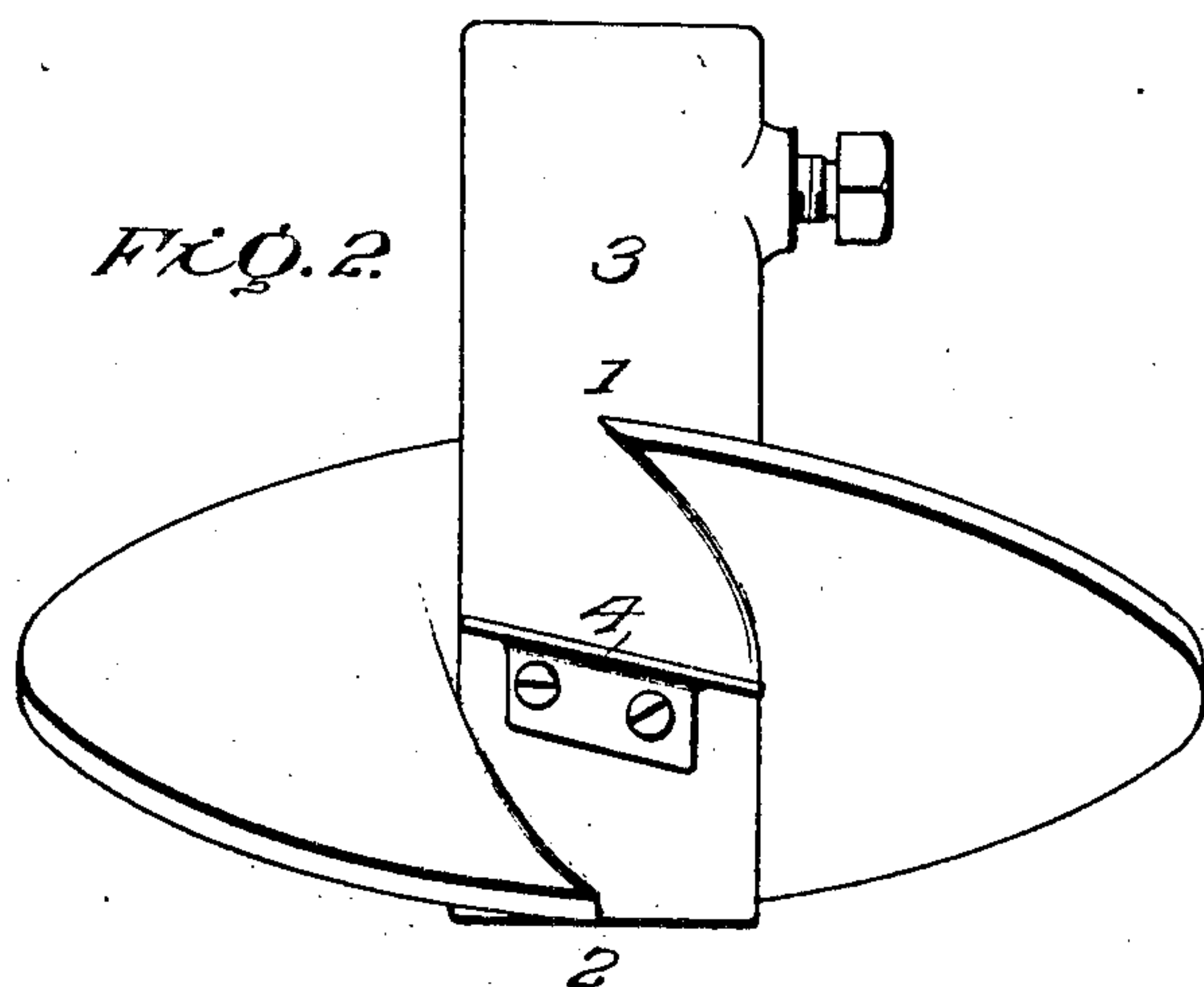
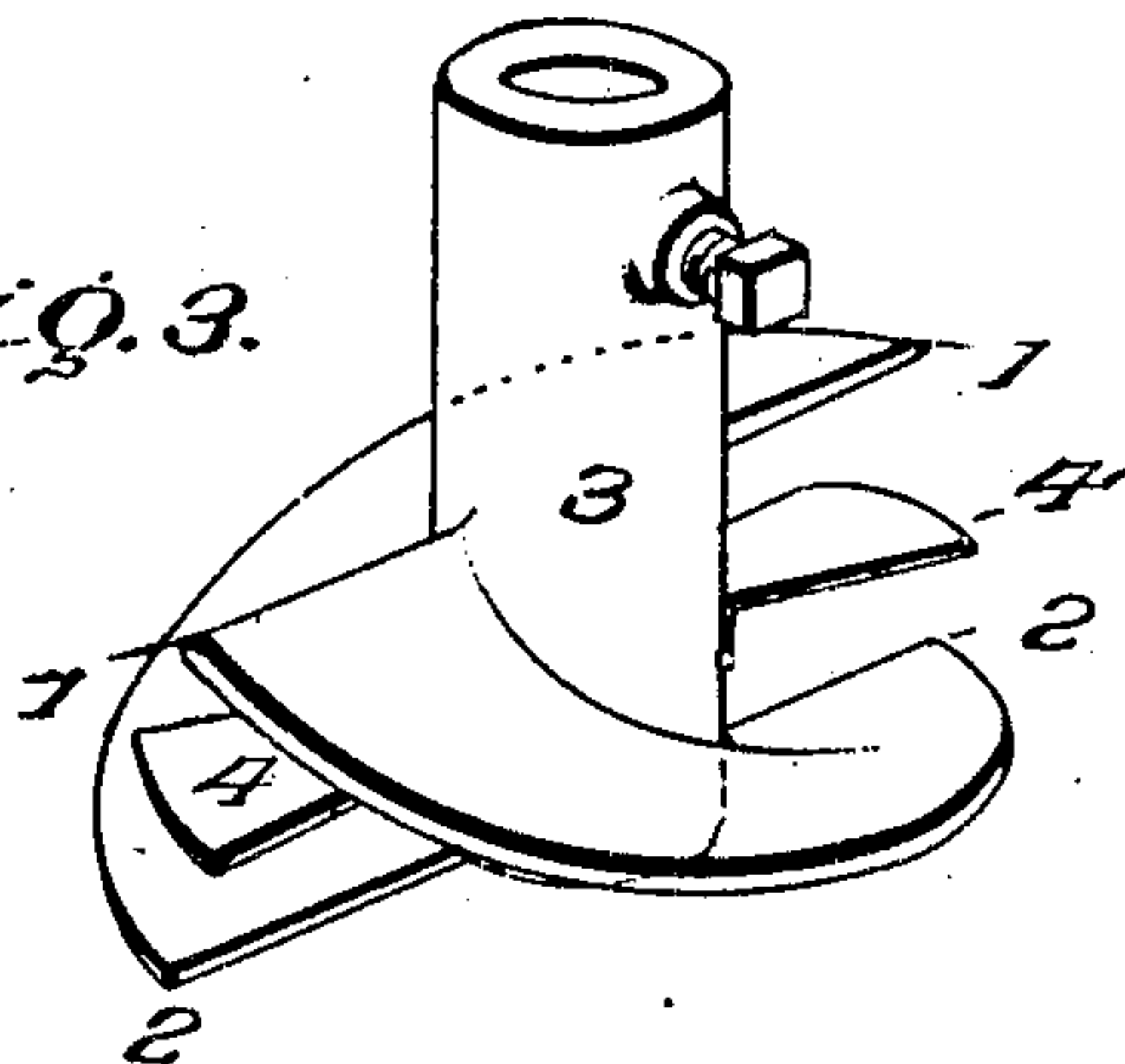


FIG. 3.



E. E. Ziegenfuss, Inventor

Witnesses

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PACKING-AUGER.

No. 849,452.

Specification of Letters Patent.

Patented April 9, 1907.

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To all whom it may concern:

Be it known that I, ELMER E. ZIEGENFUSS, a citizen of the United States, residing at Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Packing-Augers, of which the following is a specification.

For packing flour, bran, and like commodity augers are generally used because of their rapidity of action. Such augers have one or more flights extending entirely around the hub, shaft, or other central support forming the axis, so as to sustain the commodity when changing the packages. The space between the rear of one flight and the front of the adjacent flight when two or more flights are provided or between the terminal portions of a single flight oftentimes permits flour, bran, or the commodity being packed to escape.

This invention has for its object to provide a packing-auger which will not leak or permit the commodity escaping when changing the package, the improvement residing in a retainer arranged in the space formed between the terminals of the same or adjacent flights, said retainer also serving to pack the commodity when the auger is in operation.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a packing-auger embodying a single flight, showing the application of the invention thereto. Fig. 2 is a perspective view of an auger having two flights and embodying the invention, a retainer being located in the space formed between the proximal terminals of the flights. Fig. 3 is a side view of a packing-auger, showing more clearly the relative arrangement of the retainer and the terminals between which said retainer is arranged.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The invention is applicable to any style of packing-auger having proximal terminals of the flight or flights spaced apart.

Fig. 1 shows an auger having a single con-

tinuous flight, whereas Fig. 2 shows a packing-auger having two flights or blades. The proximal terminals of the flight or flights are designated by the numerals 1 and 2, the same being spaced apart and having their extremities either overlapping or approaching a plane passing through the axis of the auger and having a radial arrangement with reference thereto. Inasmuch as the auger when in operation has its axis vertically arranged, the space between the proximal terminals 1 and 2 may be designated as the "vertical" space, since said terminals 1 and 2 rotate in horizontal planes which are spaced vertically. The flight or flights of the auger extend from the hub or central support 3 and may be formed therewith or rigidly connected thereto in any manner, depending upon the formation of the auger.

The retainer 4 consists of a blade which is arranged in the vertical space formed between the terminals 1 and 2 and projects outwardly from the hub or support 3. The retainer is centrally disposed with reference to the space, and a portion underlaps the terminal 1 and overlaps the terminal 2. The retainer projects outward from the hub or support 3 a distance equal to the width of the flight and is inclined in the plane of rotation of the auger corresponding to the pitch of the flight or flights, so as to offer a minimum amount of resistance to the rotation of the auger and yet supplement the action of the flight in compressing the commodity to be packed. The retainer is of such a width as to preclude the escape of the commodity when changing the package. When adapting the invention to packing-augers now in use, the retainer will be in the nature of an attachment and secured to the hub or support 3 by machine-screws, bolts, or other fastening means; but when adapting the invention to new packing-augers the retainer, like the flight, will form an integral part of the hub or support 3, thereby simplifying the construction and obviating the formation of projecting parts at the juncture of the retainer with the hub.

From the foregoing it will be understood that a packing-auger embodying the invention will sustain the commodity and prevent leak or escape thereof of the flour when removing a package and substituting another therefor, the retainer obstructing the vertical

space and acting as a guard or baffle to hold the commodity in check.

Having thus described the invention, what is claimed as new is—

5 1. A packing-auger having a retainer arranged in the space formed between proximal terminals of the flight or flights, said retainer being inclined in the plane of motion of the
10 or flights and extending outward a distance corresponding to the width of the flight.

2. A packing-auger having the retainer arranged in the space formed between proximal terminals of the flight or flights, one portion of the retainer underlapping the top-

most terminal and the remaining portion overlapping the lower terminal.

3. As a new article of manufacture, a packing-auger comprising a central support, an integral flight or flights, and an integral re- 20 tainer arranged in the space formed between the proximal terminals of the flight or flights and inclined from front to rear corresponding to the pitch of the flight.

In testimony whereof I affix my signature 25 in presence of two witnesses.

ELMER E. ZIEGENFUSS. [L. S.]

Witnesses:

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