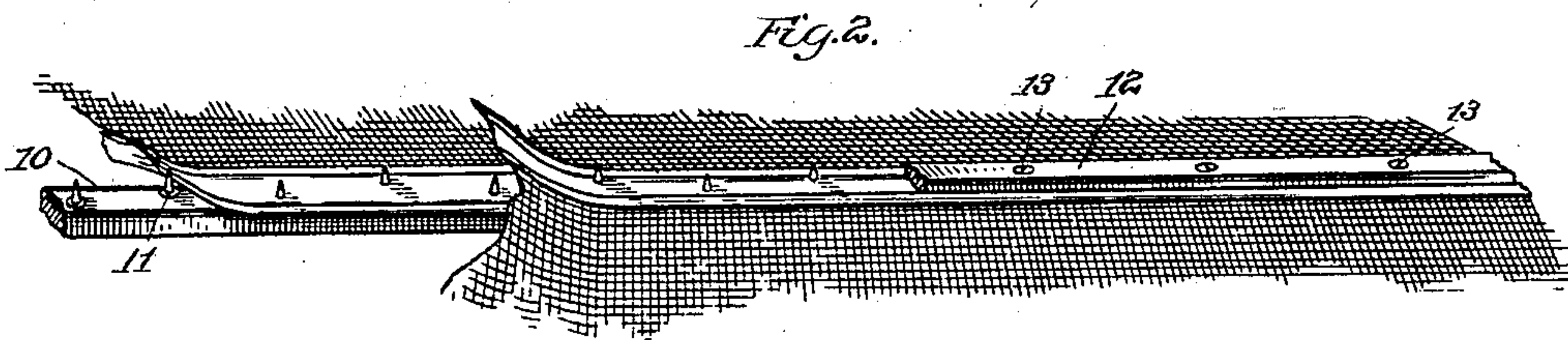
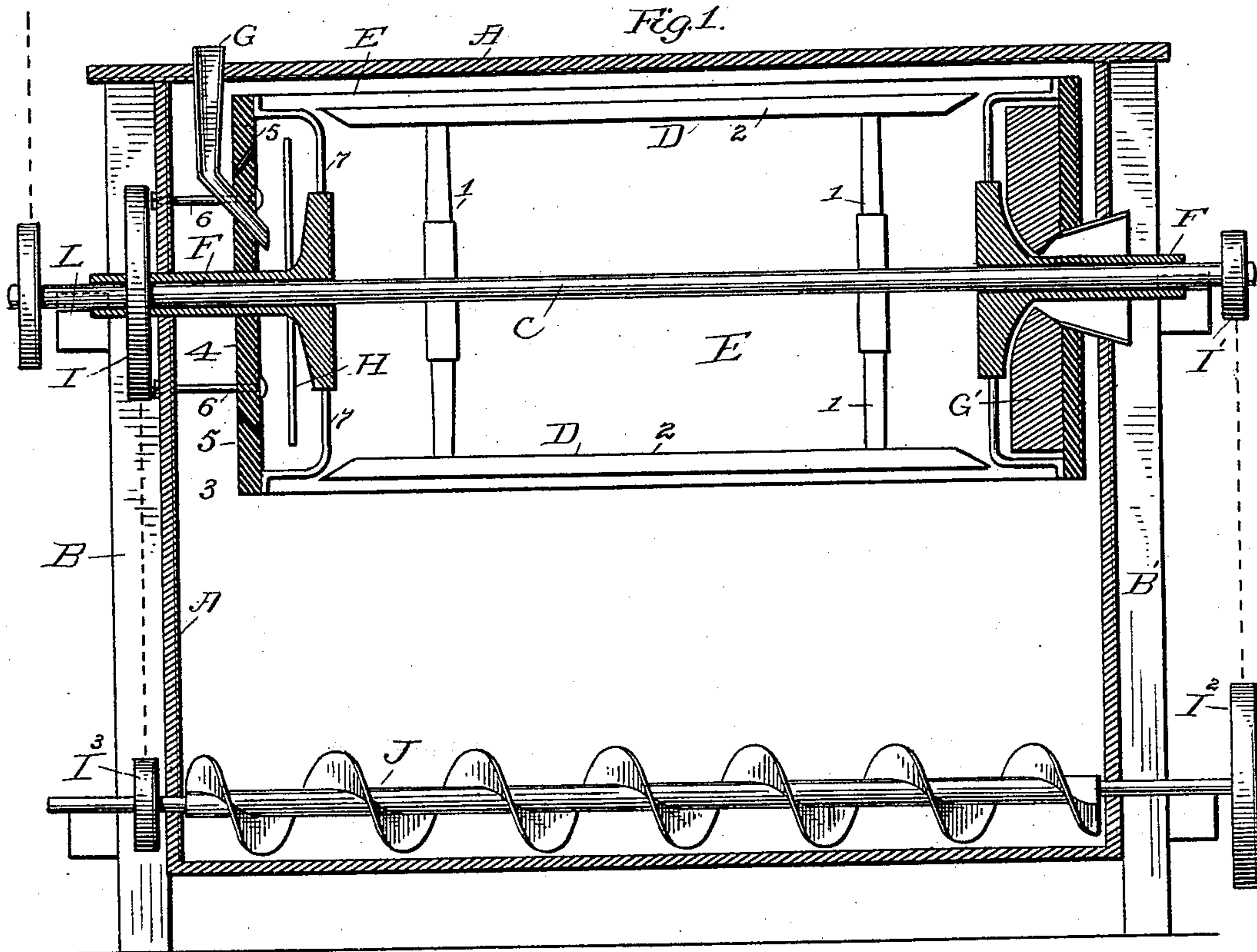


(No Model.)

F. STETTER.
CENTRIFUGAL BOLTING MACHINE.

No. 287,481.

Patented Oct. 30, 1883.



Attest:
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UNITED STATES PATENT OFFICE.

FERDINAND STETTER, OF DUBUQUE, IOWA.

CENTRIFUGAL BOLTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 287,481, dated October 30, 1883.

Application filed March 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND STETTER, of Dubuque, in the county of Dubuque and State of Iowa, have invented a new and useful Improvement in Centrifugal Bolting-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to an improvement in centrifugal bolting-machines; and it consists in various details of construction, hereinafter more fully described, and pointed out in the claims, tending to improve the machine and increase its efficiency and durability.

The invention is illustrated in the accompanying drawings, in which Figure 1 is a longitudinal section. Fig. 2 shows the manner of attaching the bolting fabric to the frame. Fig. 3 is a view of one of the brads which fasten the edge of the gauze to the bolt-frame.

The invention and the apparatus which embodies it consist in general of a case or frame supported by suitable standards, and containing independently-rotating beaters and bolt. The meal is fed into the interior through an opening in the head of the bolt, and is discharged at the opposite end, while a screw-conveyer in the bottom of the casing discharges the purified material. The entire apparatus is driven from a single pulley mounted upon a main driving-shaft.

Referring more particularly to the drawings, A represents the case, and B B' the supporting-standards or frame-work.

C represents the main driving-shaft, which is journaled in the upper part of the main frame. Upon this shaft is mounted the beater D, consisting of radial arms 1 1, to which are secured blades 2 2, which, by the rotation of the shaft, receive a rapid rotary motion. The beater is mounted upon the shaft within the bolt E, which surrounds it, and which has a less rapid independent rotation, as hereinafter explained.

The head 3 of the bolt, through which the meal is fed to the interior, is composed of two sections, 4 5. The central section, 4, is a stationary circular disk, and is secured to the casing A by bolts 6 6. The upper edge of the circular disk 4 is beveled off, as shown, to fit

snugly the correspondingly-beveled edge of the annular disk or head 5. Any suitable packing may line the meeting edges, to prevent the egress of dust, but not to obstruct the free revolution of the bolt.

The annular section 5 is connected by arms 7 to a longitudinally-perforated hub or sleeve, F, through which passes the axle or driving-shaft, the stationary disk 4 having a central opening, to permit the hub to move freely. The meal is fed through a tube, G, which passes through the stationary disk 4 and discharges just inside such disk. The hub F, at the opposite or discharge end, is of similar construction. A large outlet-opening is formed in the head of the bolt, (which at this end is solid,) and a series of elevators, G', is attached to the head of the bolt, to assist in discharging the bran. This opening also permits a sufficient quantity of air to enter to cool the meal, and a plate, H, is mounted upon the hub F, at the inlet end, to break the draft. This plate, which is made preferably of zinc, has openings near its edge, through which the material passes.

The bolt is rotated at much lower speed than the beater by a pulley, I, mounted on the hub F outside the casing. Motion is imparted to this pulley from the driving-shaft by pulleys I' I' I', the two latter of which are fixed on the shaft of the screw-conveyer J in the bottom of the casing. The bolt is of hexagonal or octagonal form, and is, as usual, covered with a wire or silk gauze fabric. The manner of attaching this fabric is shown more clearly in Fig. 2.

The heads or end disks of the bolt are connected by rounded bars 10. Into these bars are driven (from the outside) nails 11. (Shown in detail in Fig. 3.) Each nail consists of an elongated shank, a pointed brad, and a flat intermediate head, which bears on the outer surface of the bar, the brad projecting outward. The edge of the gauze fabric, or the binding-strip attached thereto, is pressed down upon the bar 10, the brads projecting through. The binding on the next section of gauze is then lapped over the first, and the two thicknesses secured by a slat, 12, pressed down upon the brads, which may be, if necessary, more firmly held

by one or two screws, 13. The silk or wire is attached in the same manner upon all sides of the bolt. The silk fabric may be easily removed from any one side of the bolt for repair 5 or renewal. It is also rendered more uniformly taut and elastic.

Having described my invention, I claim—

1. In a centrifugal bolting-machine, the combination of an inclosing-case, a revolving shaft, 10 B, a beater, a bolting-reel, hubs F, and a head composed of a stationary section, 4, secured to the case, and an annular close-fitting disk connected to the hub, and an independent feed-spout passing through the part 4, and driving 15 mechanism.

2. The combination of the driving-shaft C and the beater with the hubs F of the bolting-

reel, the annular disk 5, connected to the hub by arms 7, and the stationary disk 4, fitting closely on the hub, and the feed-spout passing 20 through it.

3. A bolting-reel consisting of heads, longitudinal bars, sections of gauze-covering overlapping on the longitudinal bars, fastening-brads embedded in such bars, and an outer 25 binding-strip.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FERDINAND STETTER.

Witnesses:

PETER KIENE, Jr.,
FRANK H. WEIHE.