

(No Model.)

3 Sheets—Sheet 1.

J. L. CAUSEY.

SALT SPRINKLER FOR DOUGH CUTTING MACHINES.

No. 466,844.

Patented Jan. 12, 1892.

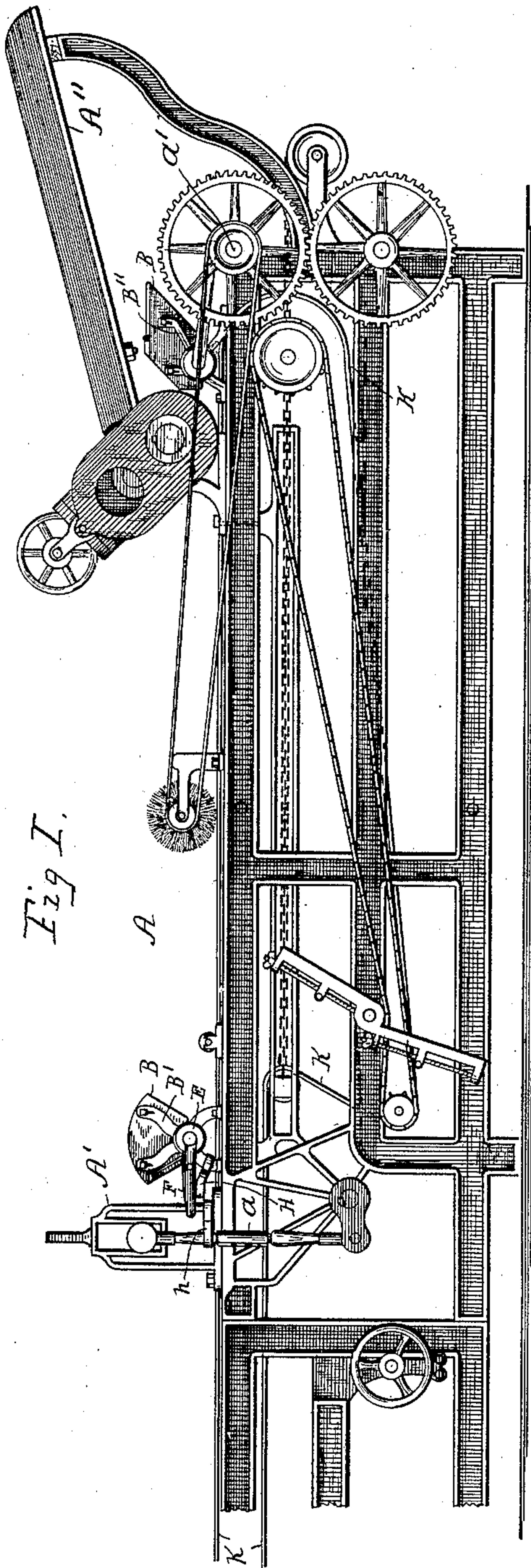


Fig. 1.

Witnesses

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Inventor:

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By Lathy & Balderson

His Attorneys.

(No Model.)

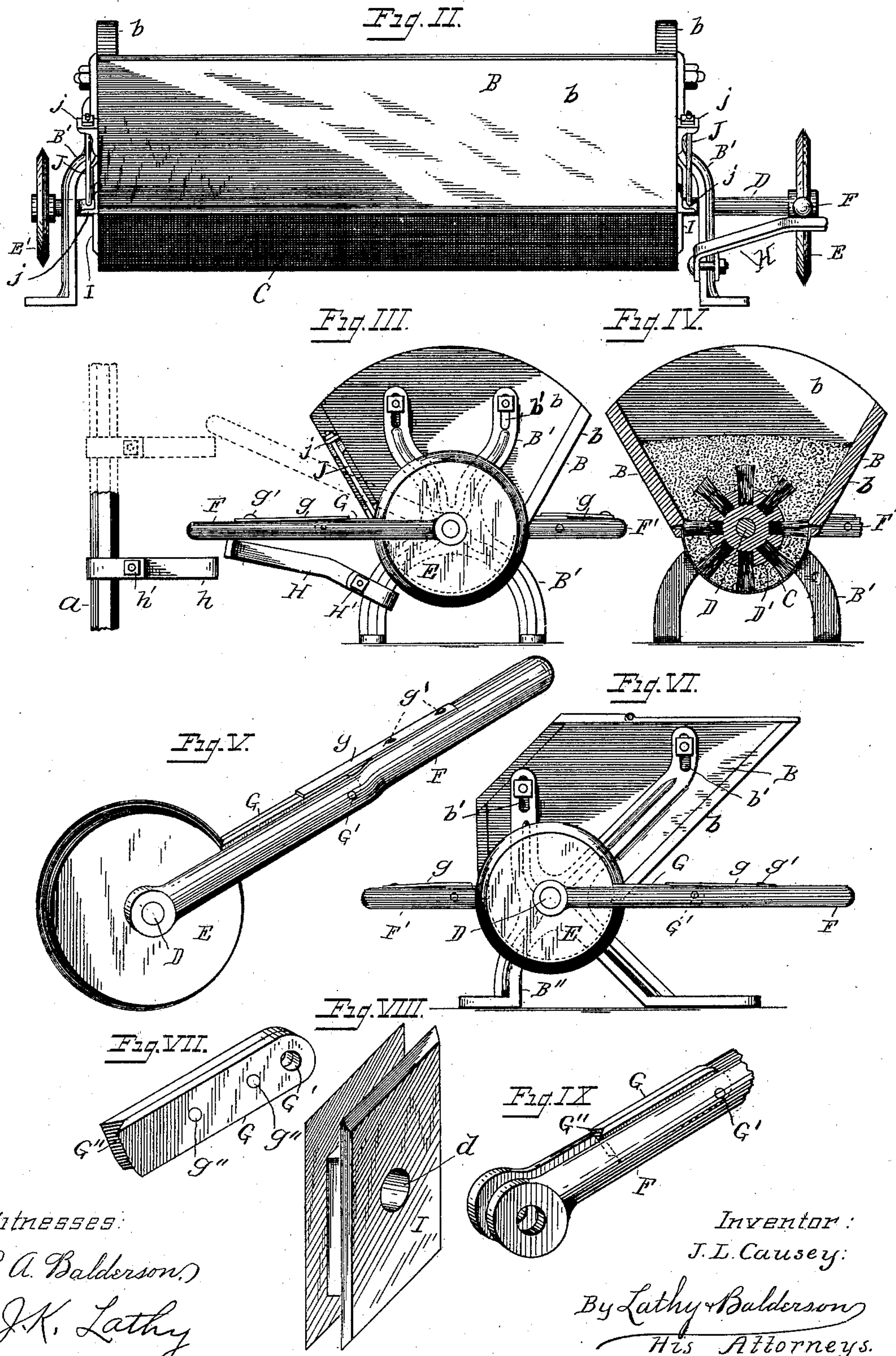
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Fig. X.

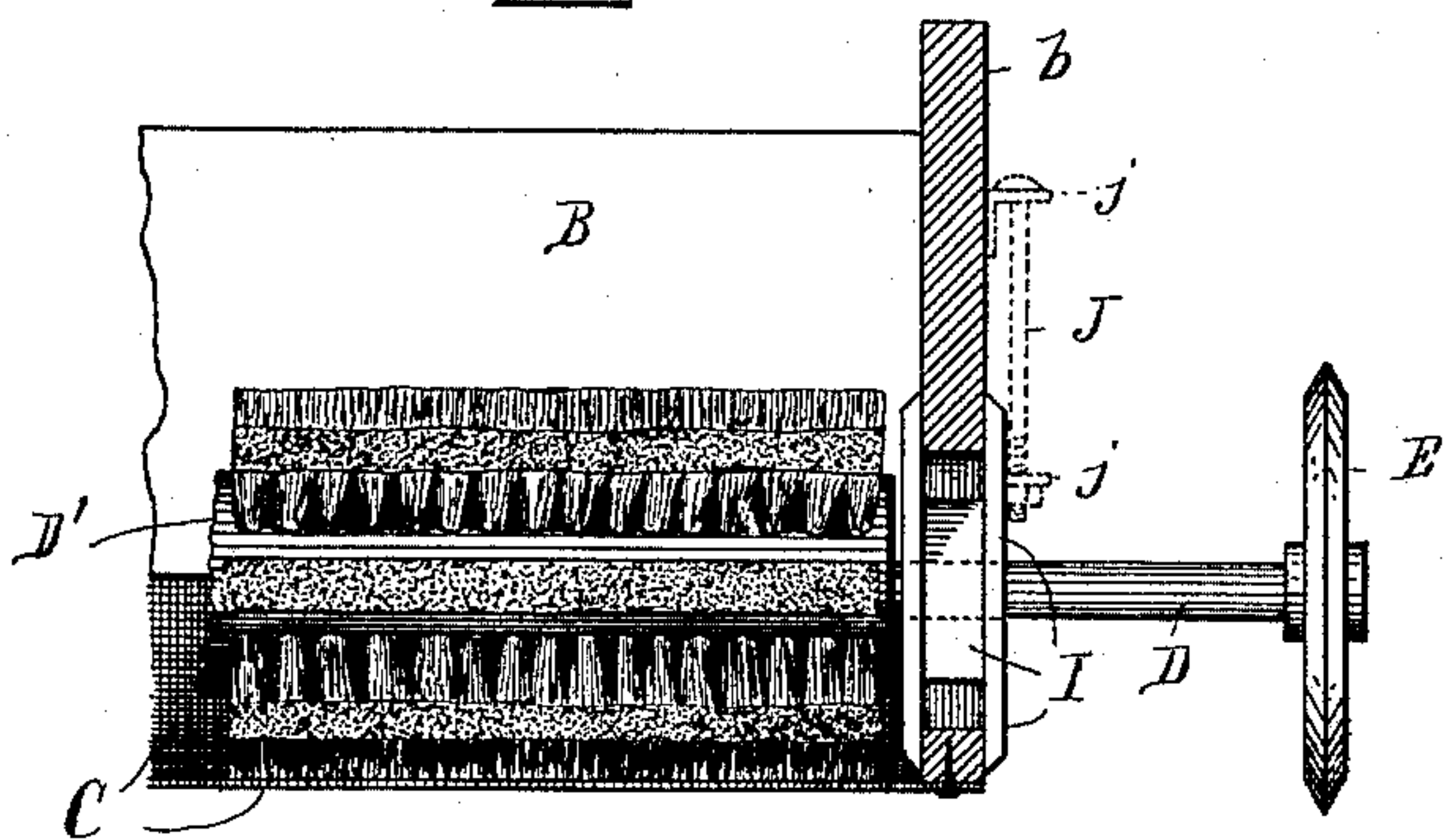
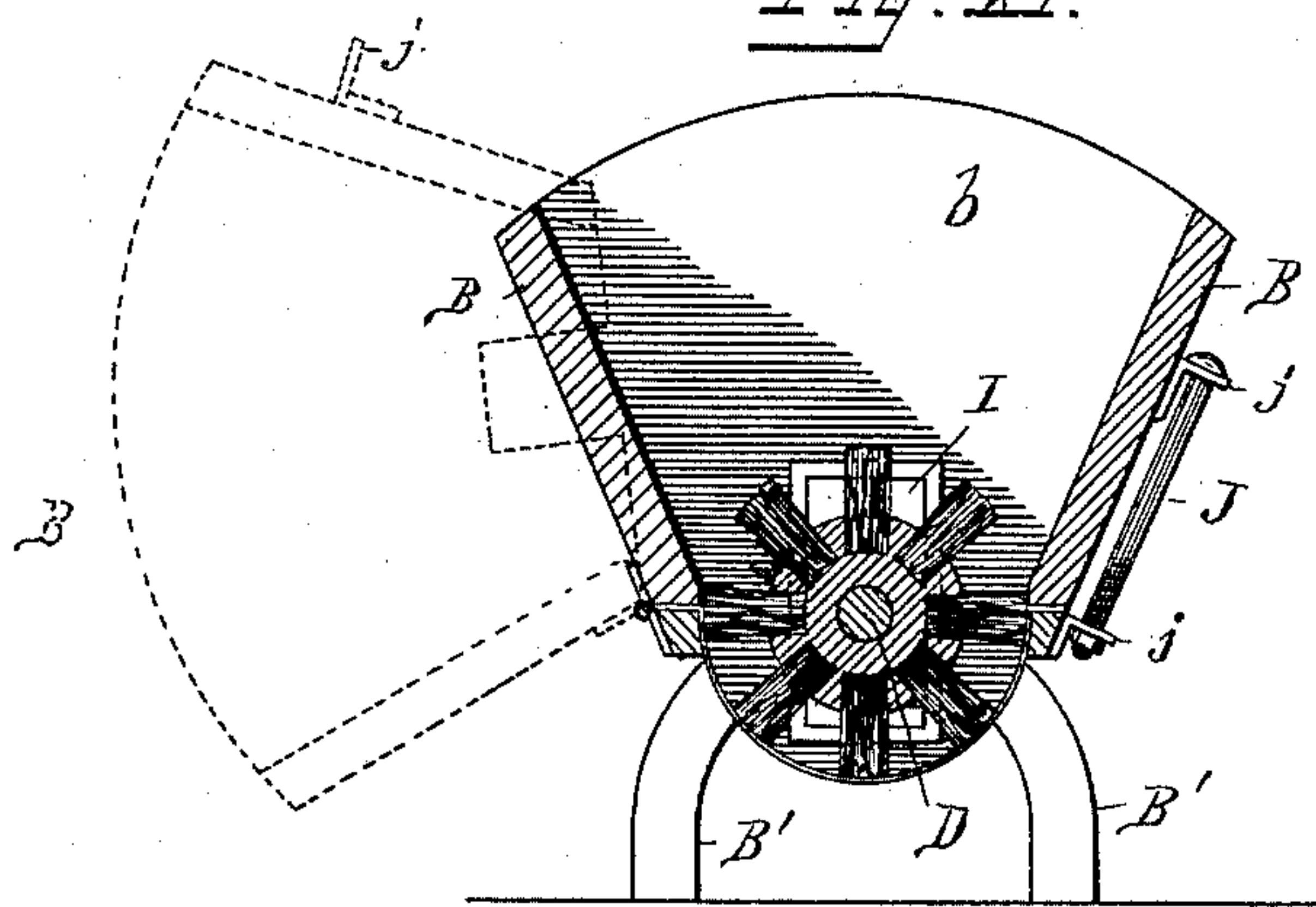


Fig. XI.



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UNITED STATES PATENT OFFICE.

JOSEPH L. CAUSEY, OF KANSAS CITY, MISSOURI.

SALT-SPRINKLER FOR DOUGH-CUTTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 466,844, dated January 12, 1892.

Application filed March 26, 1891. Serial No. 386,575. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. CAUSEY, a citizen of the United States, residing at Kansas City, in the county of Jackson, State of Missouri, have invented certain new and useful Improvements in Salt-Sprinklers for Dough-Cutting Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in sprinkling devices; and it consists in the novel construction and arrangement hereinafter fully set forth and described.

The objects of my invention are, first, to provide a device which may be placed on the dough-cutting machine in such a position and manner that salt may be sprinkled on said dough as it passes through the machine; second, to provide an adjustable salt-sprinkler which is operated mechanically, so that the quantity of salt may be regulated at will; third, to accomplish these ends with simplicity and economy, which I do by constructing and operating the devices illustrated in the accompanying drawings, in which—

Figure I is a side elevation of a dough-cutting machine, partly broken away, showing the position of my improved salt-sprinkler. Fig. II is a side elevation of said sprinkler, showing forth the improvements. Fig. III is an end view of same, showing more clearly the ratchet-wheel and levers for operating same. Fig. IV is a cross-sectional view showing the construction of the hopper and sieve, together with the revolving brush which operates therein. Fig. V is a detail in perspective of the ratchet-wheel and the lever for operating the same, together with its attachments. Fig. VI is a view of the sprinkler having a different-shaped hopper. Fig. VII is a detail in perspective of the dog which operates the ratchet-wheel, showing more clearly the manner of its construction. Fig. VIII is a detail in perspective of the slide with which the ends of the hopper are provided; and Fig. IX is a partly-broken-away perspective view of the lever, showing the dog G in position. Fig. X is a partly-broken-away sectional view of the hopper, brush, and sieve, showing the

construction and operation of the flanged slide I. Fig. XI is a cross-sectional view of the hopper, brush, and sieve, showing the manner in which the upper and lower parts of the hopper are secured together.

Referring to the drawings by letter, A represents a "convertible" dough-cutting machine provided with a cutter, which rests in the frame A', said cutter being operated by the vertical pitman-bars *a*.

A' is a chute which conveys the dough to a series of rollers, which in turn deposits it on the apron K in a thin layer, ready to be cut into cakes or crackers.

B represents a hopper having side and end walls *b* and a bottom formed of a semi-cylindrical sieve C, in which operates the revolving brush D', which is rigidly secured on the axle or shaft D. Said hopper, sieve, &c., are supported by metallic standards or legs B', as is seen in Figs. II, III, and VI. The upper extensions of the standards B' are provided with elongated perforations *b'*, through which operate suitable bolts secured by corresponding nuts, which permit of the hopper being adjusted to the brush as said brush wears away.

C is the sieve heretofore referred to, which may be secured to the hopper in any suitable workmanlike manner.

Rigidly secured on the shaft D is a revolving brush D', which operates inside the sieve C, as seen in Figs. IV, X, and XI, in such a manner that when said brush is operated the salt is sprinkled evenly over the dough.

Rigidly keyed or otherwise secured on shaft D is a beveled wheel E, operated by a lever F, which has a dog G pivotally secured between its jaws, as seen in the drawings. This dog G is assisted in its movements by a spring *g*, which is secured to lever F by means of bolts *g'*. Said spring *g* causes the dog G to grip the beveled wheel as soon as the lever is lifted, thereby preventing any lost motion.

E' is also a beveled wheel similar to the one just described. This beveled wheel and its attachments, which are exactly similar to lever F, its dog G, and spring *g*, are not shown in detail, except so much as may be seen in Figs. III and IV, are secured on the

opposite end of the shaft D from said wheel E, and are for the purpose of preventing the revolving brush from turning backward after it has been forced around by the movements of the arm *h*.

H is an arm secured to the standard B' by means of a bolt and nut H'. This arm is constructed of a metal bar of any desired length, and is provided with a loop which passes around the standard B' and is held in position by said bolt H'. The opposite end of said arm is bent outward, so as to form a rest for the lever F, as seen in Figs. II and III. *h* is a corresponding arm, which is adjustably secured to the pitman-bar *a* by a suitable bolt *h'*. This arm operates the lever F with each stroke of said pitman-bar, so that the salt (which is contained in the sprinkler, which rests behind the cutter A') is deposited in even quantities over the dough.

I represents a flanged slide having a perforation *d*, in which the shaft D operates. Both ends of the hopper are provided with these slides, which are built in openings in said walls in such a manner that by means of the slots and bolts *b'* the brush may be regulated to press against the walls of the sieve as said brush becomes worn. (See Figs. X and XI.) The ends *b* of the hopper B are mortised so as to receive the flanged sliding plate I, the mortises being cut a sufficient depth to allow said brush D' to have sufficient play up and down to be adjusted to the sieve as it becomes worn. The stay brackets and bolts *j* and J may be placed either at the ends of the hopper or at the side. On the opposite side of the hopper are suitable hinges, which, in conjunction with the bolts J, secure the upper and lower sections of the hopper together, the hopper being constructed in two pieces, so that it may be taken apart for cleaning, &c., and for removing the revolving brush when desired.

The flow of the salt is regulated by the stroke of the lever F and the stroke of the lever F is regulated by adjusting the adjustable bar *h*, Fig. III.

The flour-sprinkler is constructed the same as the salt-sprinkler, only being placed in a different position on the frame A. The hop-

per is shaped differently, and the lever F is operated by an eccentric. (Not shown.)

The operation of my invention is very simple and is as follows: The sprinklers being placed in position on the cutting-machine, as in Fig. I, are filled, the one near the cutter A' with salt and the one under chute A'' with flour. As the operating shafts, pulleys, or gears revolve, the sprinklers are operated, so that a steady flow of salt is emitted on the dough, while a corresponding flow of flour is emitted on the endless conveyer or apron K. The apron being thus continually covered with flour will not become gummed with the dough. The functions of the beveled wheels E and E' have been set forth, and it will be readily seen that the prime object of the wheel E' is to prevent the brush from returning with the downstroke of the lever F, for immediately at the beginning of the downstroke of said lever F wheel E', rigidly secured to the opposite end of the shaft D, is grasped by the dog in lever F', which holds it from turning until the commencement of the upstroke of said lever F.

This sprinkler may be used on any dough-cutting machine for sprinkling flour, salt, sugar, &c.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

A sprinkler consisting of the hopper B, having the upper and lower parts and having in the ends the perforated flanged slides I and in the lower part thereof the sieve C, axle D, revolving in the perforations of the slides I and carrying the brush D', beveled wheels E and E', secured on said axle, levers F and F', pivoted on said axle and provided with the dogs G and springs *g*, said lever F being operated in the manner described, and standards B', having the elongated perforations *b'*, all substantially as shown and described.

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

JOSEPH L. CAUSEY.

Witnesses:

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C. W. WALKER.