No. 874,570. PATENTED DEC. 24, 1907.

A. S. CAIRNCROSS.

SALTING APPARATUS.

APPLICATION FILED MAR. 30, 1907.

2 SHEETS—SHEET 1.

Fig. 1

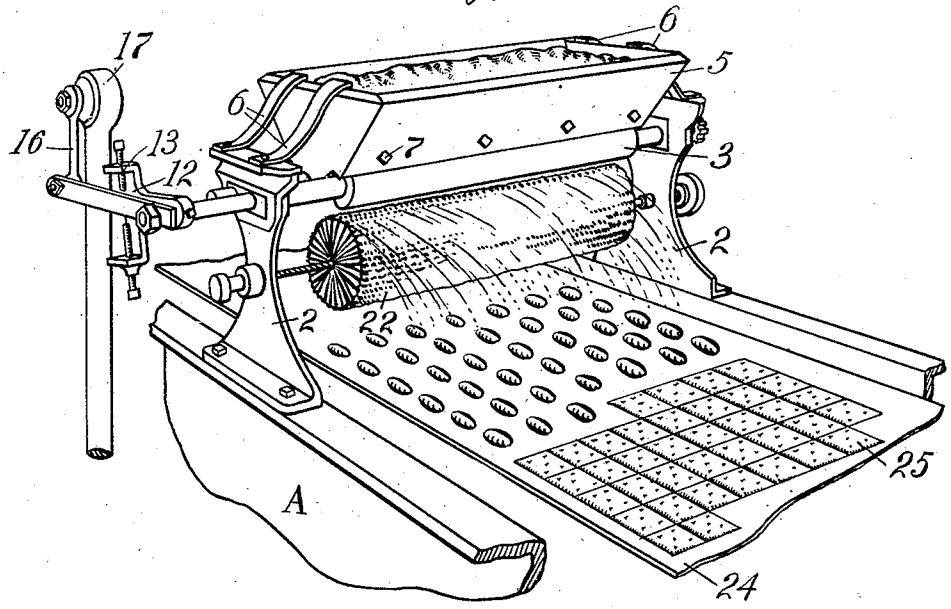
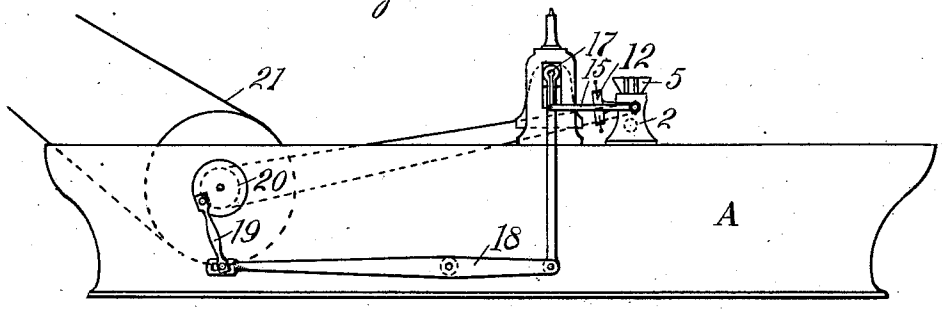


Fig. 2



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2 SHEETS—SHEET 2.

Fig. 3

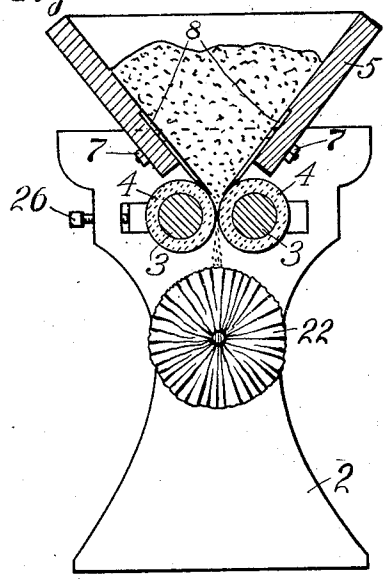


Fig. 4

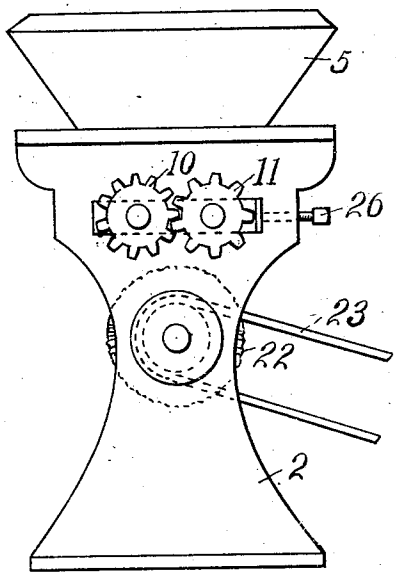


Fig. 5

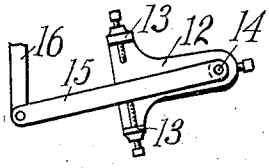


Fig. 6

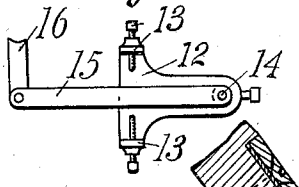


Fig. 7

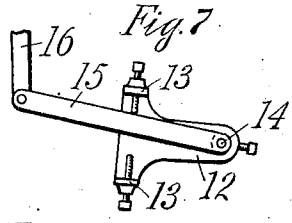
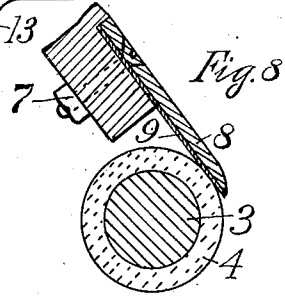


Fig. 8



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UNITED STATES PATENT OFFICE.

ANDREW S. CAIRNCROSS, OF ST. PAUL, MINNESOTA.

SALTING APPARATUS.

No. 874,570. Specification of Letters Patent. Patented Dec. 24, 1907.

Application filed March 30, 1907. Serial No. 365,584.

To all whom it may concern:

Be it known that I, ANDREW S. CAIRNCROSS, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Salting Apparatus, of which the following is a specification.

My invention relates to improvements in salting apparatus for crackers and similar articles its object being to provide an apparatus which will evenly and thoroughly distribute the salt.

To this end my invention consists in the features of construction and combination hereinafter particularly described and claimed.

In the accompanying drawings forming part of this specification, Figure 1 is a perspective view of my apparatus partly broken away; Fig. 2 is a side elevation of the apparatus; Fig. 3 is a vertical cross section through the hopper and feed roller portion of the machine; Fig. 4 is an end elevation of the hopper and feed roller portion of the machine. Figs. 5, 6 and 7 are details of the mechanism for regulating the feed rollers; and Fig. 8 is a section through one of the feed rollers and adjacent portion of the hopper.

In the drawings A represents the frame work of the apparatus. Journaled in the upwardly extending sides 2 of the frame work are a pair of rollers 3 covered by suitable resilient material 4.

5 represents a hopper which rests upon the rollers, as shown in Fig. 1, and is held in position by springs 6 secured to the frame work and engaging with the end walls of the hopper. Secured to the inner faces of the side walls of the hopper by bolts 7 are downwardly extending plates 8 each carrying upon its underside a sheet of resilient material 9 adapted to bear against the adjacent roller, as shown in Fig. 8. The plates are thus held in contact with the rollers 3 by means of the springs 6, preventing any leakage of the salt underneath the plates. The rollers 3 carry at adjacent ends intermeshing gears 10 and 11, and one of the rollers 3 carries at its opposite end an arm 12, said arm carrying at its upper and lower sides adjustable stops 13. Having pivotal support 14 upon the arm 11 and standing intermediate of the stops 13 is a link 15 connected at its outer end by a lever arm 16 with a vertically reciprocating bearing 17. The bearing 17 in Fig. 2 is shown connected with one end of a fulcrumed arm 18 the opposite end of the fulcrumed arm being connected by a crank arm 19 with a crank 20 driven from a suitably operated belt 21. Journaled in the side 2 of the frame below the rollers 3 is a revoluble brush 22 operatively connected by a belt 23 with suitable driving mechanism, not shown.

24 represents the traveling apron of the machine upon which the crackers 25 to be sprinkled with salt are carried in the usual manner.

In operation, alternate rotary movement being imparted to the rollers, will cause the salt in the hopper to be carried between said rollers to the revolving brush which will throw and distribute it over the crackers upon the traveling apron. The alternate rotary movement of the rollers 3 will be regulated by adjusting the stops 13 which adjusts the throw of the arm 11. By increasing or decreasing the movement of the rollers 3 the rate of feeding of the salt between the rollers will be regulated. The distance between the rollers may also be varied by the set nuts 26 arranged in connection with the bearings of the rollers 3.

I claim:

1. In an apparatus of the class described, the combination of a pair of parallel feed rollers, means for imparting alternate rotary movement to said rollers, a hopper supported above and intermediate of said rollers, and a revoluble brush centrally supported below said rollers, for the purpose set forth.

2. In an apparatus of the class described, the combination of a pair of parallel feed rollers, means for imparting alternate rotary movement to said rollers, a hopper supported upon said rollers, spring means holding said hopper in contact with said rollers, and a revoluble brush journaled below said rollers, for the purpose set forth.

3. In an apparatus of the class described, the combination with a traveling apron, of a pair of parallel feed rollers journaled above the same, means for imparting alternate rotary movement to said rollers, a hopper resting upon said rollers, spring means holding said hopper in position, and a revoluble brush journaled between said rollers and apron.

4. In an apparatus of the class described, the combination with a traveling apron, of a pair of parallel feed rollers journaled above

said apron, a resilient covering for said rollers, a hopper supported above said rollers, downwardly extending side walls carried by said hopper and contacting with said rollers, adjustable means for imparting alternate rotary movement to said rollers, and a revoluble brush supported between said rollers and apron.

5. In an apparatus of the class described, the combination with a traveling apron, of a pair of parallel feed rollers journaled above the same, a resilient covering for said rollers, adjustable means for imparting alternate rotary movement to said rollers, a hopper arranged above said rollers and having downwardly extending side walls resting upon said rollers, a resilient covering for said side walls bearing against said rollers, and a revoluble brush journaled between said rollers and apron.

6. In an apparatus of the class described, the combination with a traveling apron, of a pair of parallel feed rollers journaled above the same, a hopper resting upon said rollers, spring means for holding said hopper in position and a distributing brush arranged between said rollers and apron.

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

ANDREW S. CAIRNCROSS.

Witnesses:
H. S. JOHNSON,
HATTIE SMITH.