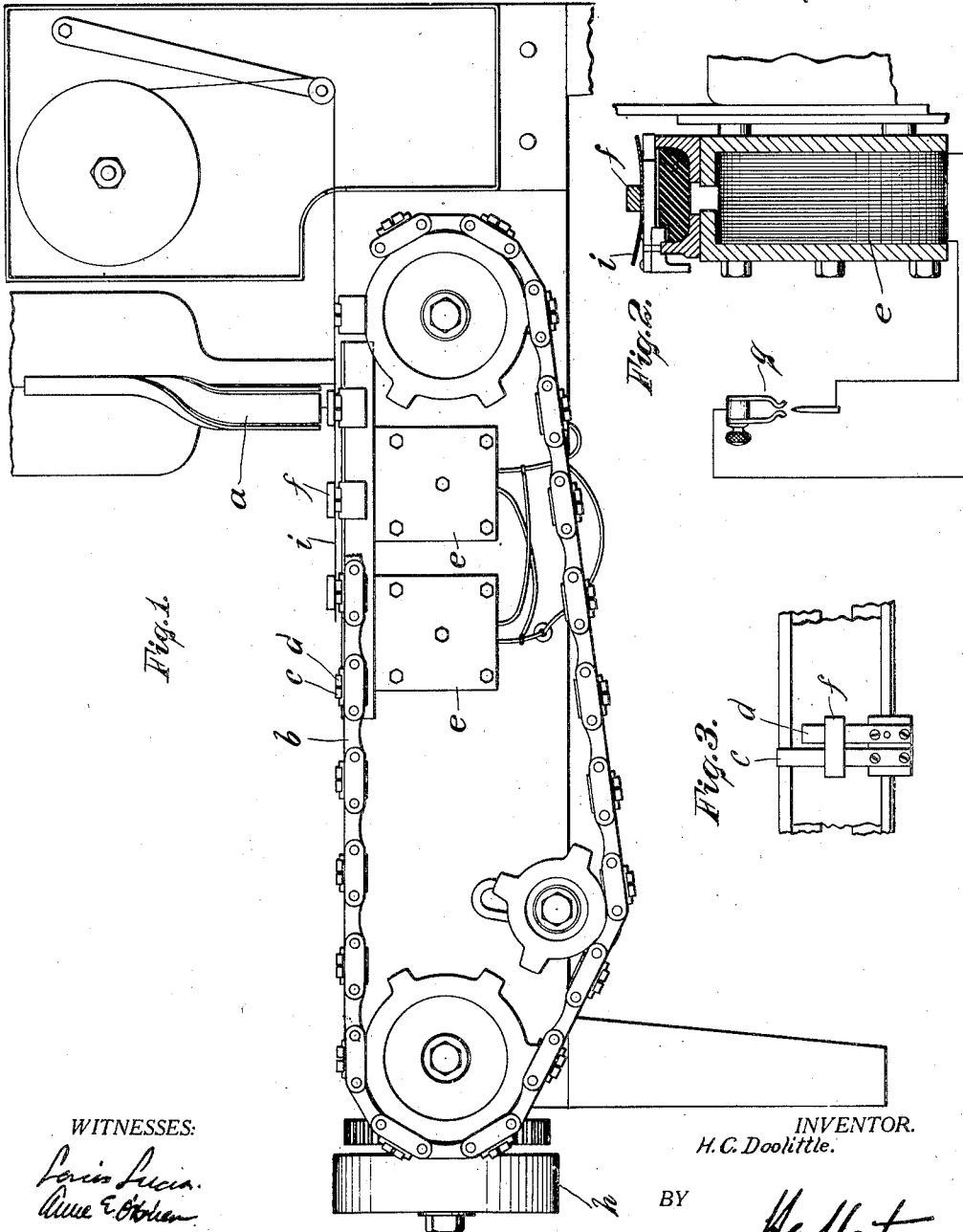


H. C. DOOLITTLE.
WRAPPING MACHINE.
APPLICATION FILED DEC. 3, 1915.

1,276,193.

Patented Aug. 20, 1918.



WITNESSES:

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WRAPPING-MACHINE.

1,276,193.

Specification of Letters Patent. Patented Aug. 20, 1918.

Application filed December 3, 1915. Serial No. 64,826.

To all whom it may concern:

Be it known that I, HOWARD C. DOOLITTLE, a citizen of the United States, and a resident of New Britain, in the county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Wrapping-Machines, of which the following is a specification.

This invention consists in providing a novel means for moving the material in which the articles are to be wrapped, and broadly considered, the invention consists in gripping the wrapping material between the articles and a moving part located underneath it, so that the movement of the moving part, carrying with it the article, will cause the movement of the wrapper. In the embodiment of the invention illustrated, a strip of paper which is unrolled from a reel is the wrapping material, the article to be wrapped is of metal and preferably of a magnetizable metal, and the moving part comprises pairs of bars, one of which is in contact with one pole of an electro-magnet, and the other in contact with the other pole of an electro-magnet, suitable means, as an endless chain, being provided for moving these bars.

For the commencement of the operation of the mechanism, the end of the wrapping material is drawn out and laid on the bars under the spout of a hopper. The articles are fed down the spout, one or more at a time, and dropped onto the wrapping material immediately over the bars. Automatically operating mechanism then throws an electric current into the magnet, magnetizing the bars which attract to them the articles lying on the wrapper, with enough force so that as the bars are moved forward by the endless chain, driven from a suitable source of power, the attraction between the bars and the article is sufficient to pinch the wrapper and cause it to move along with the article. Of course there are a succession of the pairs of bars and the machine as here illustrated operates intermittently so that at each movement of the endless chain a pair of bars is stopped under the hopper spout, and at that time the electric circuit to the magnet is broken. Then another article is fed down onto the wrapper, the circuit is reestablished, and the conveyer moves forward.

While this invention is concerned prima-

rily with this novel means of moving the wrapping material, it will of course be understood that in order to make such a machine complete it should be equipped with folding mechanism, cutting-off mechanism, then with mechanism which will complete the bundle, and possibly with ejecting mechanism to remove the bundle from the machine. A variety of mechanisms for performing these various operations may be supplied and in conjunction with which the present invention may be associated, and while I have developed preferred forms of such devices they will not be herein illustrated or described.

It will be apparent that this invention considered in its broadest aspect can be utilized for the handling of other than metallic goods, and the movement of the wrapping material accomplished by other than magnetic means.

In the drawings—

Figure 1 is a diagrammatic view of a machine embodying my invention.

Fig. 2 is a detail sectional view of the magnet and bars.

Fig. 3 is a plan view of the same.

Referring to the drawings, *a* denotes the hopper spout, *b*, the conveyer, *c*, *d*, the pairs of bars carried by the conveyer, *e*, *e*, the magnets, the bar *c* being in contact with one pole, and the bar *d* with the other pole thereof. *i* is the wrapping material, and *f* represents an article which is to be wrapped. *g* indicates an automatic circuit breaker, timed in its operation to open the circuit while the article is being fed from the hopper spout, and to close the circuit just before the chain moves to step the machine ahead. *h* represents a form of intermittent motion which constitutes the drive for the conveyer.

For the purposes of the disclosure of this invention I have not illustrated a complete machine, but only that part of the machine with which this invention is concerned, but its greatest utility will probably be found in connection with folding and bundling mechanism.

I claim as my invention:

1. In a wrapping machine, an endless traveling conveyer the upper run of which is horizontal, said conveyer having a plane surface on which the goods to be wrapped are laid, the wrapping material being positioned on the conveyer underneath the goods,

and means acting upon the goods to force them against said conveyer and so grip the wrapper to cause it to move with the conveyer and goods.

- 5 2. In a wrapping machine, an endless traveling conveyer the upper run of which is horizontal, said conveyer having a plane surface on which the goods to be wrapped are laid, the wrapping material being positioned on the conveyer underneath the goods, means acting upon the goods to force them
10 against said conveyer and so grip the wrapper to cause it to move with the conveyer and goods, and means for periodically interrupting the action of said gripping means.
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3. In a machine for wrapping magnetizable goods, a movable magnetic means acting upon the goods through the interposed wrapper to cause the latter to move with
20 said magnetic means.

4. In a machine for wrapping magnetizable goods, a movable magnetic means acting upon the goods through the interposed

wrapper to cause the latter to move with said magnetic means, and means for periodically interrupting the magnetic effect. 25

5. In a machine of the character described for wrapping magnetizable goods, a magnet, a conveyer, magnet-bars carried by said conveyer, one of said bars being in contact with
30 one pole of said magnet and the other with the other pole, said bars acting upon the goods through the interposed wrapper to cause the movement of the latter with said conveyer.
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6. In a machine of the character described for wrapping magnetizable goods, an electro-magnet, a conveyer, magnet-bars carried by said conveyer, one of said bars being in
40 contact with one pole of said magnet and the other with the other pole, said bars acting upon the goods through the interposed wrapper to cause the movement of the latter with said conveyer, and means for periodically deenergizing said magnet.

HOWARD C. DOOLITTLE.