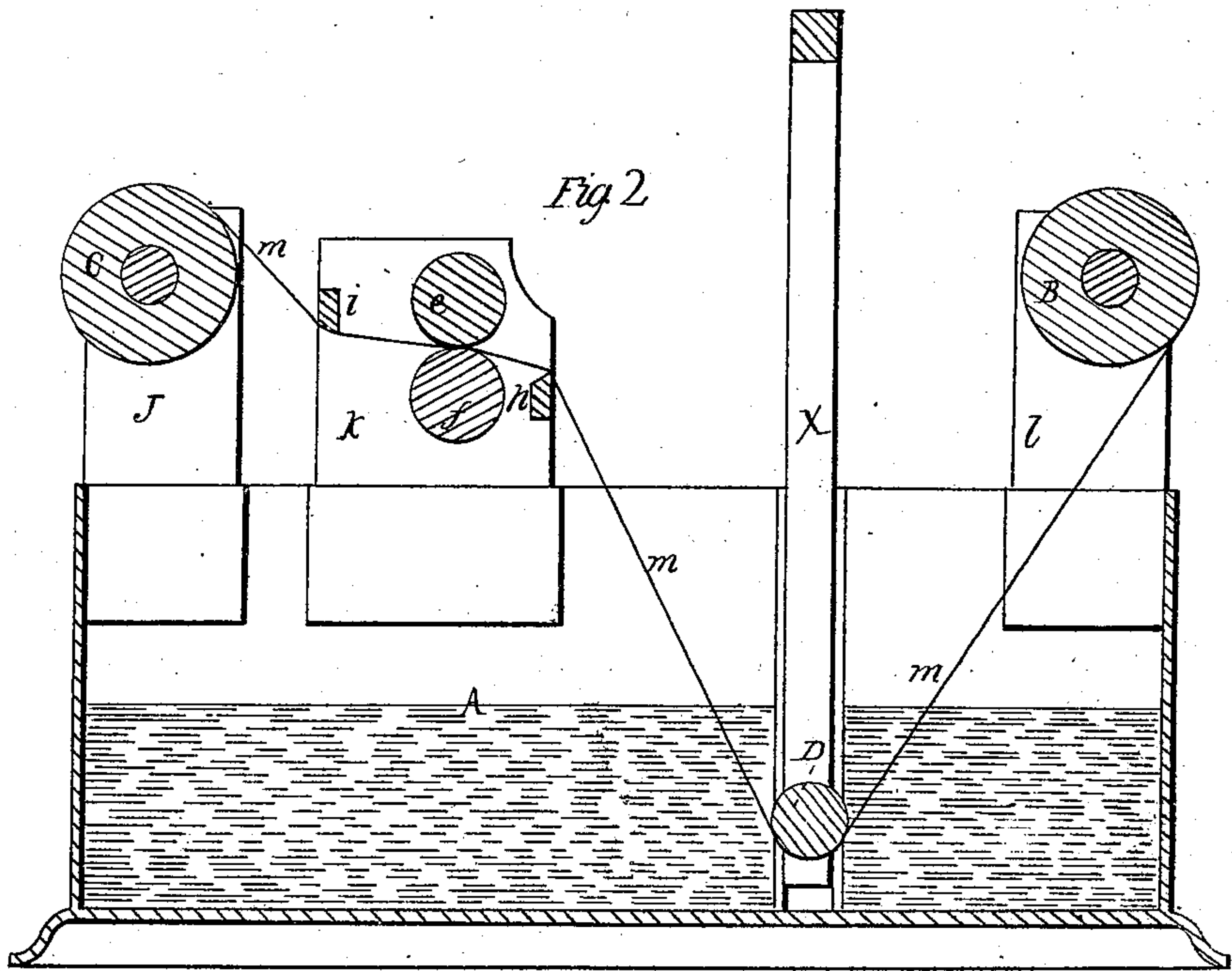
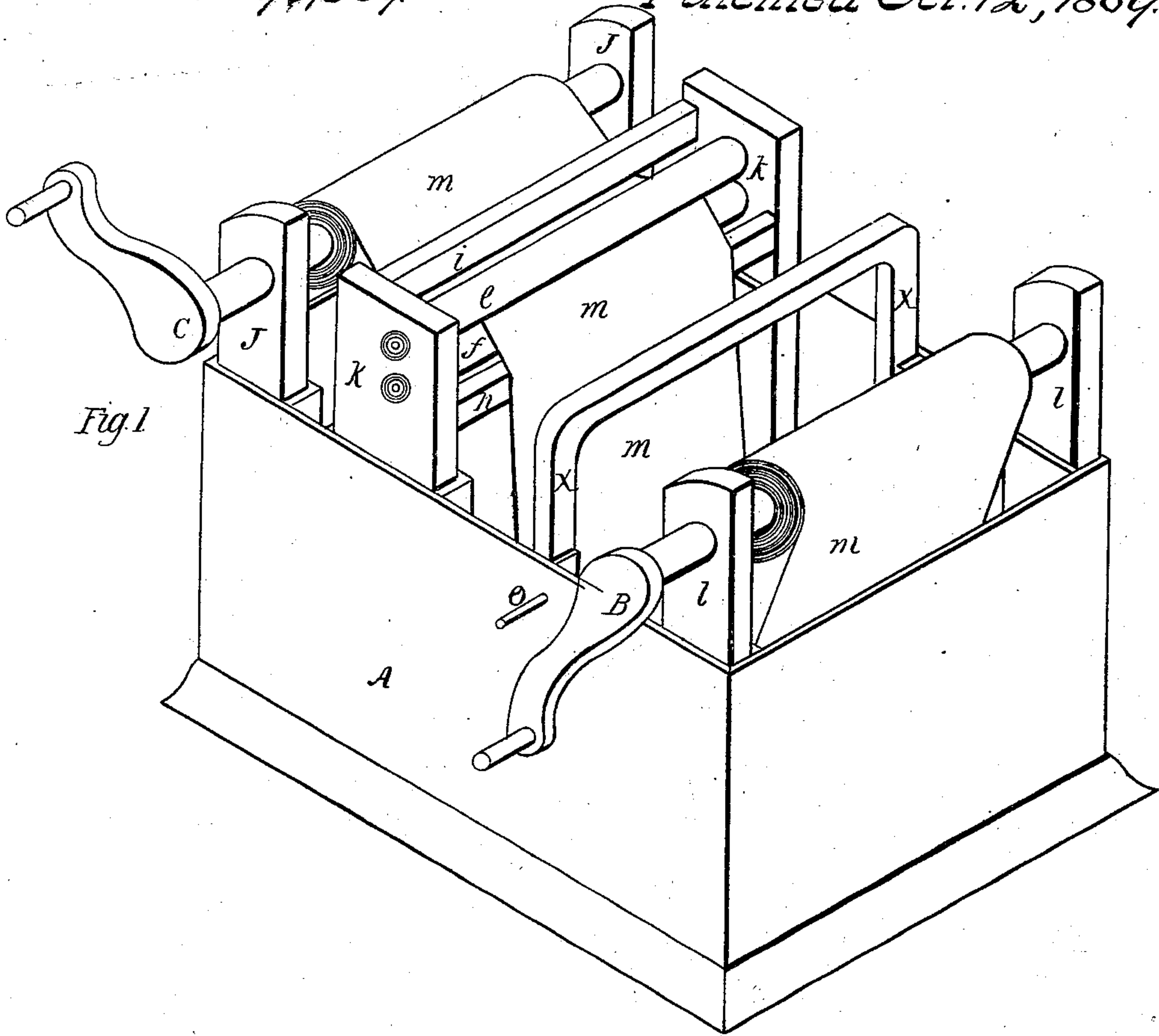


J. Howard.
Coating Paper.

N^o 95,689.

Patented Oct. 12, 1869.



Witnesses:

James J. Johnston
Geo. N. Thomas

Inventor

J. Howard

UNITED STATES PATENT OFFICE.

JAMES HOWARD, OF WEST MANCHESTER, PENNSYLVANIA.

IMPROVED MACHINE FOR TARRING PAPER FOR ROOFING.

Specification forming part of Letters Patent No. 95,689, dated October 12, 1869.

To all whom it may concern:

Be it known that I, JAMES HOWARD, of West Manchester, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Machines for Tarring Paper for Roofing; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the combination and arrangement of windlasses, adjustable press-roller, guide-rolls, and scrapers with a reservoir for holding and heating the tar, asphaltum, or other matter used for saturating and coating paper used for roofing, the whole being constructed, combined, arranged, and operating substantially in the manner hereinafter described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, which make part of my specification, Figure 1 is a perspective view of my improved machine for tarring paper for roofing. Fig. 2 is a longitudinal section of the same.

In the drawings, A represents the reservoir for holding the tar, asphaltum, or other matter suitable for saturating and coating the paper for roofing. This reservoir should be constructed of iron, and so arranged that it can be placed over a suitable furnace for the purpose of melting and heating the substance used for saturating and coating the paper.

The reservoir A is provided with two windlasses, B and C, guide-rolls *e* and *f*, and scrapers *h* and *i*, all of which are supported on uprights J, *k*, and *l*. About midway between the scraper *h* and the windlass B is placed a press-roller, D, which has its bearings in an adjustable frame, X, which moves in grooves made in the sides of reservoir A, and is held in the desired position by pins O.

As the construction and the arrangement of the several parts described and their relation to each other will readily be understood by the skillful mechanic without further description, I will at once proceed to describe their operation, which is as follows:

The paper to be saturated and coated is wound onto the windlass B. The coal-tar, asphaltum, or other suitable material used for

the purpose of saturating and coating the paper, is placed in the reservoir A, and melted and made sufficiently hot to cause the paper to dry by passing it once through the contents of the reservoir. After the coal-tar or other matter used is melted and heated to the desired degree, I then pass one end of the paper *m* on the windlass B, down into the melted and heated matter, drawing it under the roller D, passing it over the scraper *h*, and between the rolls *e* and *f*, and under the scraper *i*, and finally onto the windlass C, as shown in the drawings. I then turn the windlass C, which will unwind the paper *m* from off the windlass B and wind it onto the windlass C. The roll D will keep the paper down in the melted matter in the reservoir, and the scraper *h* will scrape off the surplus matter from the under side of the paper, and the scraper *i* will scrape off the surplus matter from the upper side, and rolls *e* and *f* will keep the paper in line with relation to the scrapers *i* and *h*.

The advantage of my improvement consists in saving time, labor, and expense in saturating and coating paper for roofing, by the use of the above-described machine, which enables the operator to saturate, coat, dry, and put the paper up in rolls of the desired size at a single operation.

Those skilled in the art of preparing paper for roofing will readily see other advantages which will result from the use of my improved machine, such as cleanliness in the process of saturating and coating the paper, for all dripping and dribbling on the floor of the saturating and coating room is entirely avoided, and the use of large drying-rooms and suspension-racks is dispensed with, and the manufacturer can, without waiting for the dripping and drying process, dispose of his stock.

Having thus described the nature, construction, and operation of my improvement, what I claim as of my invention is—

The arrangement of the reservoir A, windlasses B and C, adjustable rollers D, scrapers *i* and *h*, and rollers *e* and *f*, constructed, arranged, and operating substantially as herein described, and for the purpose set forth.

JAS. HOWARD.

Witnesses:

JAMES J. JOHNSTON,
ALEXANDER HAYS.