W. H. Salisbury.

Wool Oiling Machine.

No. 58,556. Patented Oct. 2, 1866.

Fig. 2.

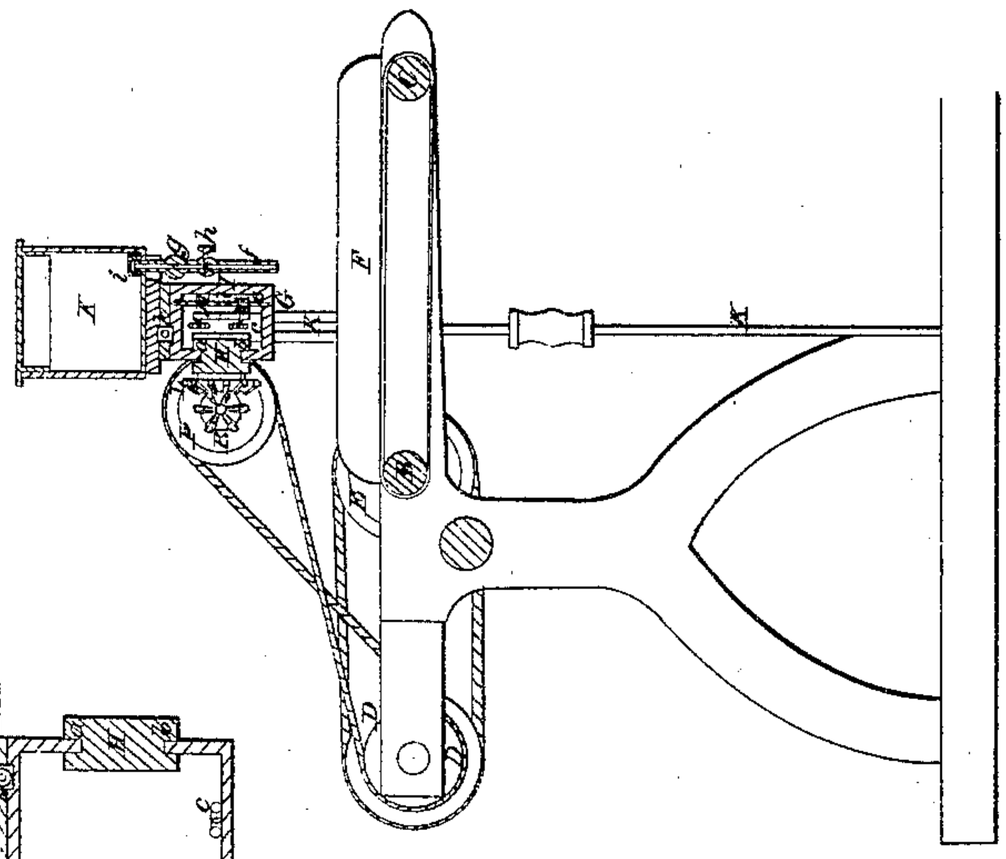


Fig. 3.

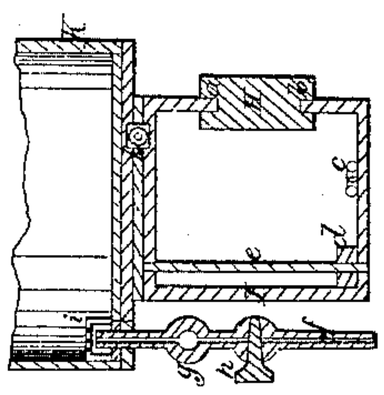
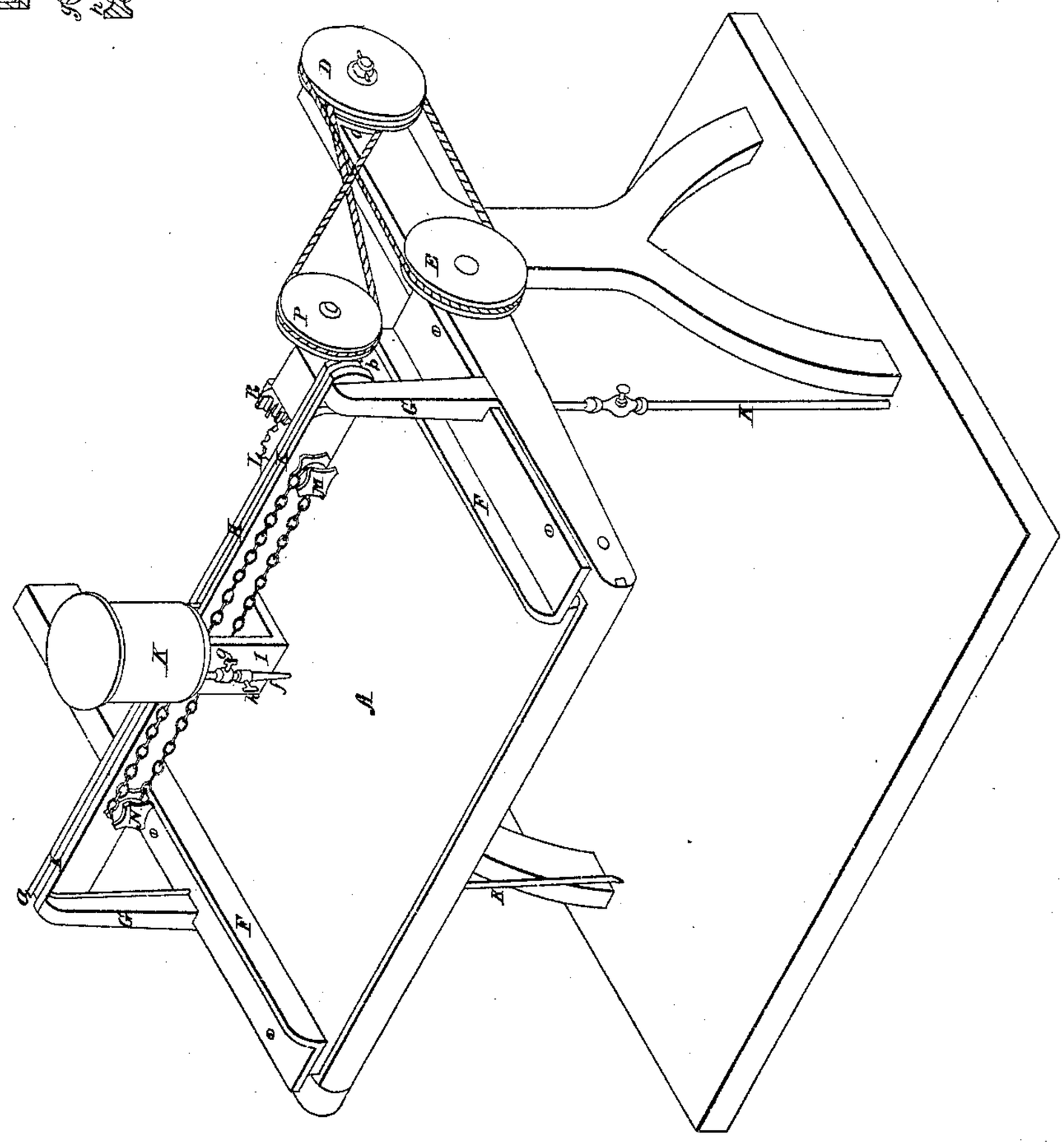


Fig. 1.



UNITED STATES PATENT OFFICE.

WM. H. SALISBURY, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO HIMSELF AND JESSE A. LOCKE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN WOOL-OILING MACHINERY FOR CARDING-ENGINES, &c.

Specification forming part of Letters Patent No. **58,556,** dated October 2, 1866.

To all whom it may concern:

Be it known that I, WILLIAM H. SALISBURY, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Apparatus for Oiling Wool; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved oiling apparatus as applied to the apron of a carding-machine. Fig. 2 is a transverse vertical section through the same, and Fig. 3 is a central vertical section through the bottom of the oil-reservoir and parts connected with it, enlarged.

Preparatory to the carding of wool it is necessary that oil be evenly distributed through its fibers, in order to facilitate the drawing-out or carding operation.

To do away with the labor and inconvenience of sprinkling the oil by hand over the surface of the wool, machinery of different kinds has been employed, but its application has heretofore been attended with more or less difficulties.

An oiling apparatus in common use, consisting of a pressure-roller supplied with oil from a reservoir, by means of a brush which passes over a dipping-plate, as it rises from the oil-reservoir, is objectionable, for the following reasons, viz: The pressure-roller with the oil upon it, being uncovered and exposed, soon becomes so coated with "card-flyings" as to cause the wool which is being fed under it to adhere to its surface and be carried up until the traveling brush comes against it and throws it down in a matted mass, which makes the feed difficult and irregular. The brush is also clogged with the card-flyings, and becomes so hard as to be unable to retain the oil long enough to lay it over the whole surface of the roller, the oil running off the end next the reservoir onto the floor. The woolen waste or flyings also accumulate in the reservoir, and have to be removed frequently, which occasions a loss of time and waste of oil, and is, moreover, dangerous on account of their highly-combustible properties.

The above-mentioned apparatus occupies considerable room, requires much attention to regulate, and occasions a good deal of dirt, and, owing to the traveling brush clogging and becoming hard, it wears away rapidly, and requires to be frequently replaced.

The object of my invention is to remove the above-mentioned difficulties; and it consists in an oil-reservoir which travels in guides extending across the apron of a carding-machine, and distributes a uniform supply of oil to the wool thereon by means of a tube provided with cocks for regulating the supply of oil, which is prevented from thickening in low temperatures by passing steam through a pipe situated beneath it.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings the wool is placed upon the apron A, which is fed along by the rolls B C, having their bearings in the frame-work of the carding-engine, power being transmitted from the pulley D to the pulley E on the end of the roll B. The apron A is provided on each side with guides F, which keep the wool in place while being fed through the machine.

Standards G arise from the frame-work and support the bar H, which extends longitudinally across the apron and at a short distance above it.

In the upper and lower surfaces of this bar H are cut longitudinal grooves *a b*, within which slides the traveling carriage I, bearing the oil-reservoir K. A short shaft having its bearings in the bar H carries at one end a bevel-wheel, L, and at its opposite end a sprocket-wheel, M, over which and another similar wheel, N, runs the chain *c*. Said chain is secured to the carriage I by means of a link, *d*, sliding on an upright rod, *e*, placed in an opening in the carriage.

The oil-reservoir K has a tube, *f*, through which the oil drops onto the wool beneath it, and the tube is provided with two cocks, *g h*, which regulate the supply of oil.

The upper cock, *g*, is adjusted by the overseer in charge of the carding-room, while the

lower cock, *h*, is opened and closed by the attendant on starting and stopping the machine.

The tube *f* projects up a short distance above the bottom of the reservoir, so as to prevent the sediment in the oil from passing down the tube; and to more effectually obviate this tendency a strainer, *i*, is hinged to the bottom of the reservoir, and covers over the top of the tube *f*, leaving a short space between them.

A steam-pipe, *k*, passes longitudinally over the apron A, and lies directly under the path of the oil-reservoir K, and is for the purpose of keeping the oil warm and fluid in cool weather.

Power being applied to the carding-machine, motion is communicated from the wheel O to the wheel P on a shaft which carries at its opposite end a bevel-wheel, R, which engages with the wheel L, and through the connections already explained the carriage bearing the reservoir is caused to travel back and forth across the apron, distributing oil to the wool thereon in a manner free from the objections to which machines heretofore constructed have been liable.

In order to distribute the oil uniformly over the surface of the wool, it is necessary that the speed of the carriage bearing the reservoir be more rapid than that of the apron carrying the wool, which may be accomplished by suitable gearing in a well-known manner.

It is evident that the reservoir K may be traversed in any suitable path for oiling the wool previous to its being carded, the tube *f* being of such a length and form as to deliver the oil at the required point.

A pendulous oil-tank has heretofore been essayed. This I, of course, lay no claim to, confining myself to the traversing of the oil-reservoir, substantially in the manner and by the means which I have described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The steam-pipe *k*, in combination with the oil-reservoir K, substantially in the manner and for the purpose set forth.

2. In combination with the oil-reservoir K, the tube *f*, with its regulating-cocks *g h*, and strainer *i*, for the purpose specified.

WILLIAM H. SALISBURY.

Witnesses:
HERBERT F. BENT,
AMASA S. WESTCOTT.