(No Model.)

F. HERBOTH.

WOOL OILING APPARATUS.

No. 287,025. Patented Oct. 23, 1883.

Fig. I.

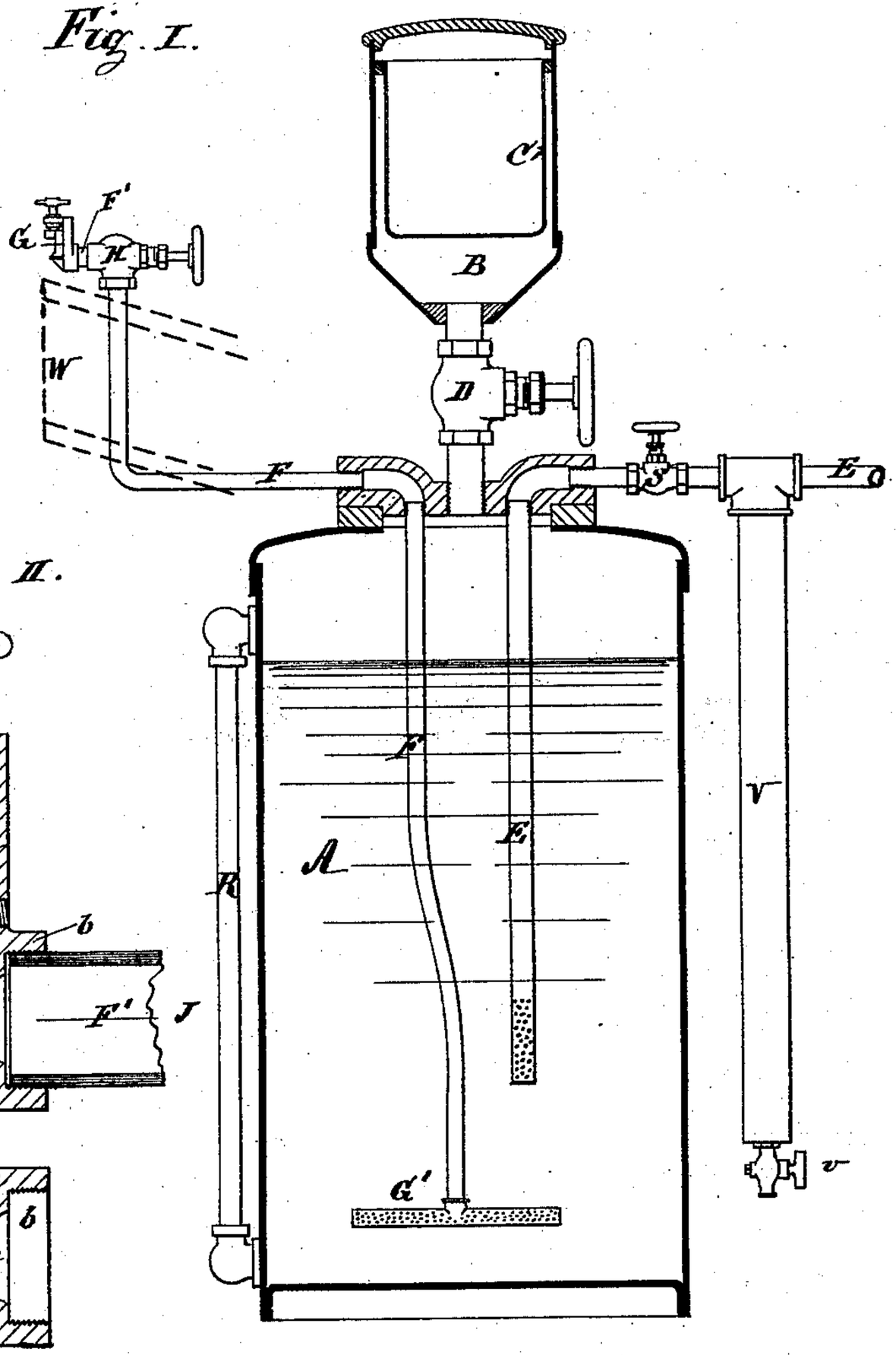


Fig. III.

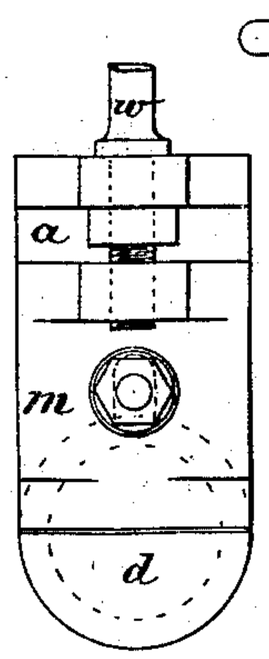
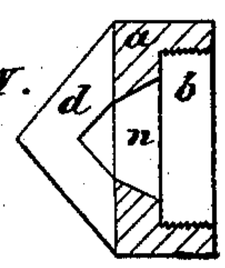


Fig. II.

Fig. IV.



Witnesses
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UNITED STATES PATENT OFFICE.

FERDINAND HERBOTH, OF NEWARK, NEW JERSEY.

WOOL-OILING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 287,025, dated October 23, 1883.

Application filed October 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND HERBOTH, a citizen of the United States, residing at Newark, in the State of New Jersey, have invented a new and Improved Wool-Oiling Apparatus, of which the following is a specification.

The nature of my invention consists in the arrangement of a suitable tank in which the oil or other oily fluid used for oiling the wool is heated and brought to a boiling-point for the purpose of making the same as fluid as possible, said tank being provided with steam and discharge pipes and suitable strainer, and a distributing-nozzle at the upper end of the discharge-pipe, through which the oil, previously heated and made perfectly fluid by the action of the steam, is discharged in a very fine spray upon the wool as the same is thrown from the burr-picker or other wool-cleaning machine into the wool-room; and, further, in the construction of the discharging-nozzle, whereby the discharge of the oily liquid can be regulated with the greatest minuteness desired.

In the accompanying drawings, Figure I represents an elevation of my oiling apparatus, partly in section. Fig. II is a vertical section, and Fig. III a front view, of the discharging-nozzle in enlarged size. Fig. IV is a detached view of the lower portion of the discharging-nozzle.

Similar letters represent similar parts in all the figures.

A is a suitable tank, made of any desired size or shape, having above it a receiver, B, containing a suitable strainer, C, to filter the oil or oily liquid before admitting the same into the tank A. A suitable cock or valve, D, is placed in the connection-pipe between the receiver B and tank A. A steam-pipe, E, is arranged to pass into the tank A, extending some distance downward into the body of the oil or oily liquid, the lower end of which is perforated to allow the steam to escape, thereby heating and boiling the fluid in said tank, and then act upon the top of the fluid to force the same out through a discharge-pipe, F. This discharge-pipe F passes through the top of the tank to within a short distance of the bottom thereof, and is provided at its lower end with a perforated pipe, G′, or other suitable strainer, to strain or filter the fluid again before passing into said discharge-pipe F. The outer end of this discharge-pipe F is conducted near the top of the discharge-spout W (shown in dotted lines in the drawings) of the burr-picker or other wool-cleaning machine, from where the wool is thrown into the wool-room. The outer end of this discharge-pipe is provided with a distributing-nozzle, G, and stop-valve H. Through this distributing-nozzle G the oil or oily liquid is discharged in a very fine spray, meeting the wool as the same passes from the burr-picker or other similar machine into the wool-room, and thus distributes the oil or other liquid evenly over the wool. This nozzle G consists of a plate, *a*, having on one side the hub *b*, to receive the connecting-pipe F′, and on its front one-half of the discharge piece or mouth *d*. The upper surface of this discharge-mouth *d* is made square and corresponds with the center line of the cavity or hole *n*, through the plate *a*, and in connection with the pipe F′. Above the discharge piece or mouth *d* a plate, *m*, is fitted to the plate *a*, capable of moving upward or downward, and operated by means of a suitable screw, *w*, arranged in the head of the plate *a*. The lower end of this plate *m* forms the other half of the discharge-piece or mouth of the nozzle, and its surface is made to fit exactly against and upon the surface of the discharge piece or mouth *d*. By the action of the screw *w* the distance between the plate *m* and the surface of the mouth-piece *d* can be regulated with the greatest accuracy. The outer shape of this mouth-piece *d* is made circular or conical, and as any opening made between the upper surface of the mouth-piece *d* and the lower surface of the plate *m* will extend over one-half of the periphery of this mouth-piece, the oil or oily fluid will be discharged in a semicircle and in a very fine spray, depending upon the distance of the end surface of the plate *m* from the end surface of the mouth-piece *d*, and which can be regulated with the greatest minuteness by means of the screw *w*.

In the steam-pipe E a large pipe, V, is arranged near the stop-cock S, to act as a water-trap to collect any condensed steam, and which can be drawn off through the cock *v* at the bottom of said pipe V.

R is a gage-glass arranged at the side of the tank A, to indicate the quantity of oil or oily liquid in said tank.

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

1. A wool-oiling apparatus consisting of the tank A, with receiver B, provided with a suitable strainer, C, steam-pipe E, and discharge-pipe F, with perforated pipe G′ at its lower end, in combination with the distributing-nozzle G at the upper end of the discharge-pipe F, the whole being arranged to operate in the manner and for the purpose substantially as described.

2. A wool-oiling apparatus consisting of the tank A, with reservoir B, provided with a suitable strainer, C, steam-pipe E, and discharge-pipe F, with perforated pipe G′ at its lower end, in combination with the distributing-nozzle G at the end of the discharge-pipe F, said distributing-nozzle G consisting of a hub, *b*, having the lower half of circular discharge-mouth *d*, and the plate *a*, the sliding plate *m*, forming the upper half of said circular discharge-mouth, and means for adjusting said sliding plate *m*, substantially as described.

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Witnesses:

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