

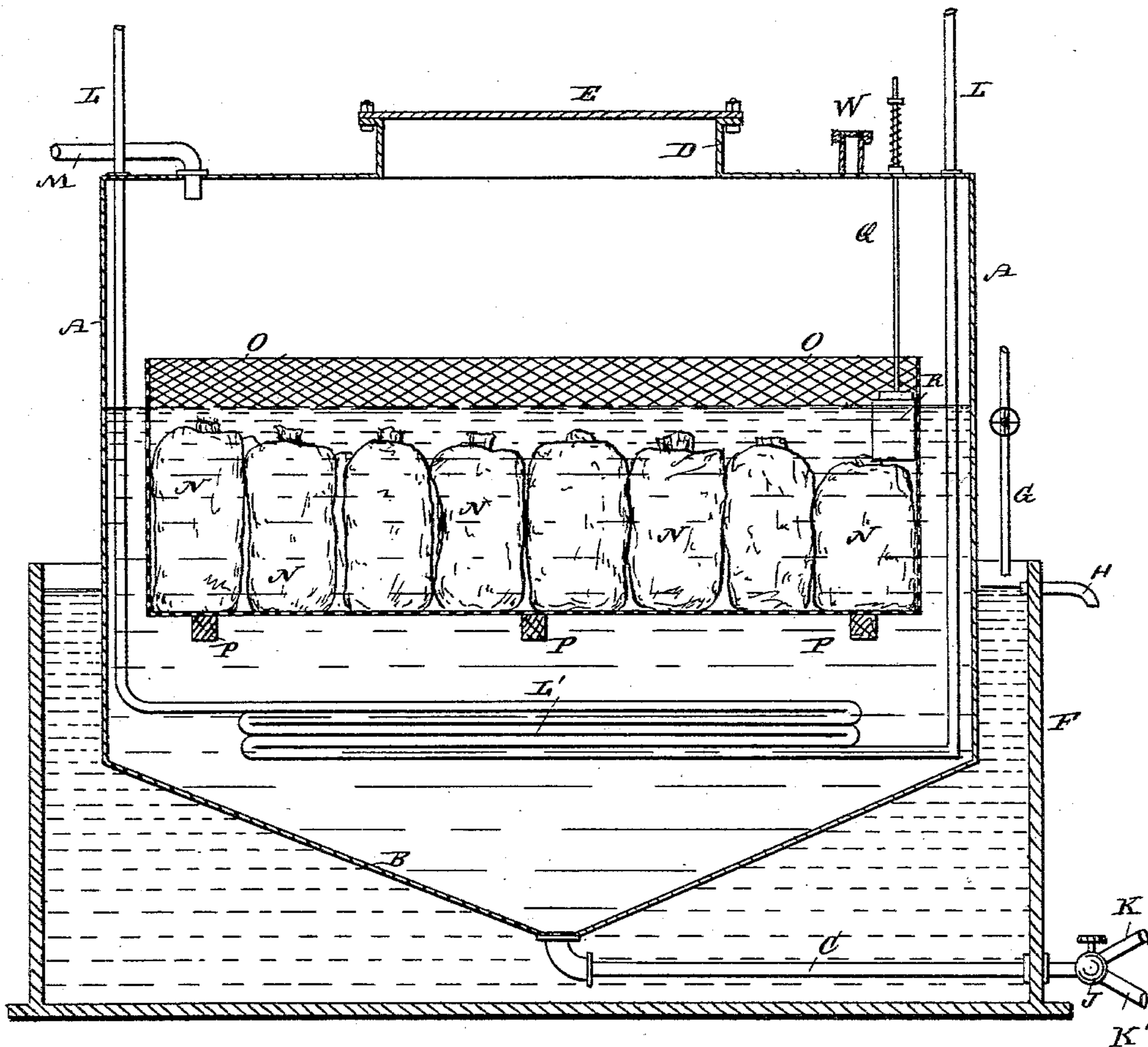
(No Model.)

F. F. NEWELL.

APPARATUS FOR TREATING LEATHER STOCK WITH NAPHTHA  
TO EXTRACT OILS.

No. 300,497.

Patented June 17, 1884.



WITNESSES:

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INVENTOR:

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# UNITED STATES PATENT OFFICE.

FRANK F. NEWELL, OF CHELSEA, MASSACHUSETTS.

APPARATUS FOR TREATING LEATHER-STOCK WITH NAPHTHA TO EXTRACT OILS.

SPECIFICATION forming part of Letters Patent No. 300,497, dated June 17, 1884.

Application filed March 25, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK F. NEWELL, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Apparatus for Treating Leather-Stock with Naphtha to Extract Oils, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved apparatus for drying naphtha-extracted leather-stock treated in such a manner that the vapor expelled from the leather by the drying process can be regained.

The invention consists in the combination, with a tank for treating leather with naphtha, of a water-tank, surrounding the lower part of the naphtha-tank, and of a steam pipe and coil for heating the interior of the naphtha-tank.

Reference is to be had to the accompanying drawing, forming part of this specification, in which a longitudinal sectional elevation of my improved tank for drying naphtha-extracted leather-stock is shown.

A tank, A, having a beveled or funnel-shaped bottom, B, is provided with an outlet-pipe, C, which extends outward from the lowest point of the said bottom. The tank A is provided with a neck, D, on which a cover, E, is bolted to form absolutely-tight joints. The lower part of the tank A is surrounded by a water-tank, F, having a water-inlet pipe, G, and an overflow-pipe, H. The pipe C projects through the side of the tank F, and is provided with a three-way cock, J, and branches into two pipes, K K'. A steam-pipe, L, extends down to near the bottom of the tank A, then forms a coil, L', and then extends upward out of the tank at the opposite side. An inlet-pipe, M, for the naphtha, is connected with the top of the tank. The bags N, containing the leather-stock, are placed in a cage or apertured box, O, resting on cross-pieces P of the tank A. A float, R, in the tank A, is provided with a rod, Q, projecting from the top of the tank A.

The operation is as follows: The bags N are placed in the cage O, the tank A is closed, and naphtha is admitted into the tank A and ex-

tracts the fatty parts of the leather. After the said parts have been extracted the naphtha is pumped out of the tank through the pipe C and the pipe K', and then steam is admitted into the pipes L and the coil L'. The steam heats the air in the tank A, causing the naphtha remaining in the stock and bags to be evaporated. As the naphtha vapor is heavier than air, it sinks to the bottom of the tank A, comes in contact with the bottom B, which is cooled by the water in the tank F, whereby the vapor is condensed. The condensed naphtha, collecting in the bottom of the tank, flows off through the pipe C and the pipe K, and thus none of the naphtha is lost by drying the stock after the fatty parts have been extracted from the same by the naphtha.

The tank A is provided in its top with a neck, W, provided with a screw-cap, through which neck the tank can be filled after the cover has been screwed down.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a tank for treating leather with naphtha, of a water-receptacle surrounding the lower part of the said tank, substantially as herein shown and described.

2. The combination, with a tank for treating leather with naphtha, of a water-receptacle surrounding the lower part of the tank, and of a steam pipe and coil in the naphtha-tank, substantially as herein shown and described.

3. The combination, with the tank A, for treating leather with naphtha, of the water-tank F, surrounding the lower part of the tank A, the water-inlet pipe G, the water-overflow pipe H, the pipe C, extending from the bottom of the tank A through the side of the water-tank, and of a steam coil and pipe in the naphtha-tank, substantially as herein shown and described.

FRANK F. NEWELL.

Witnesses:

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