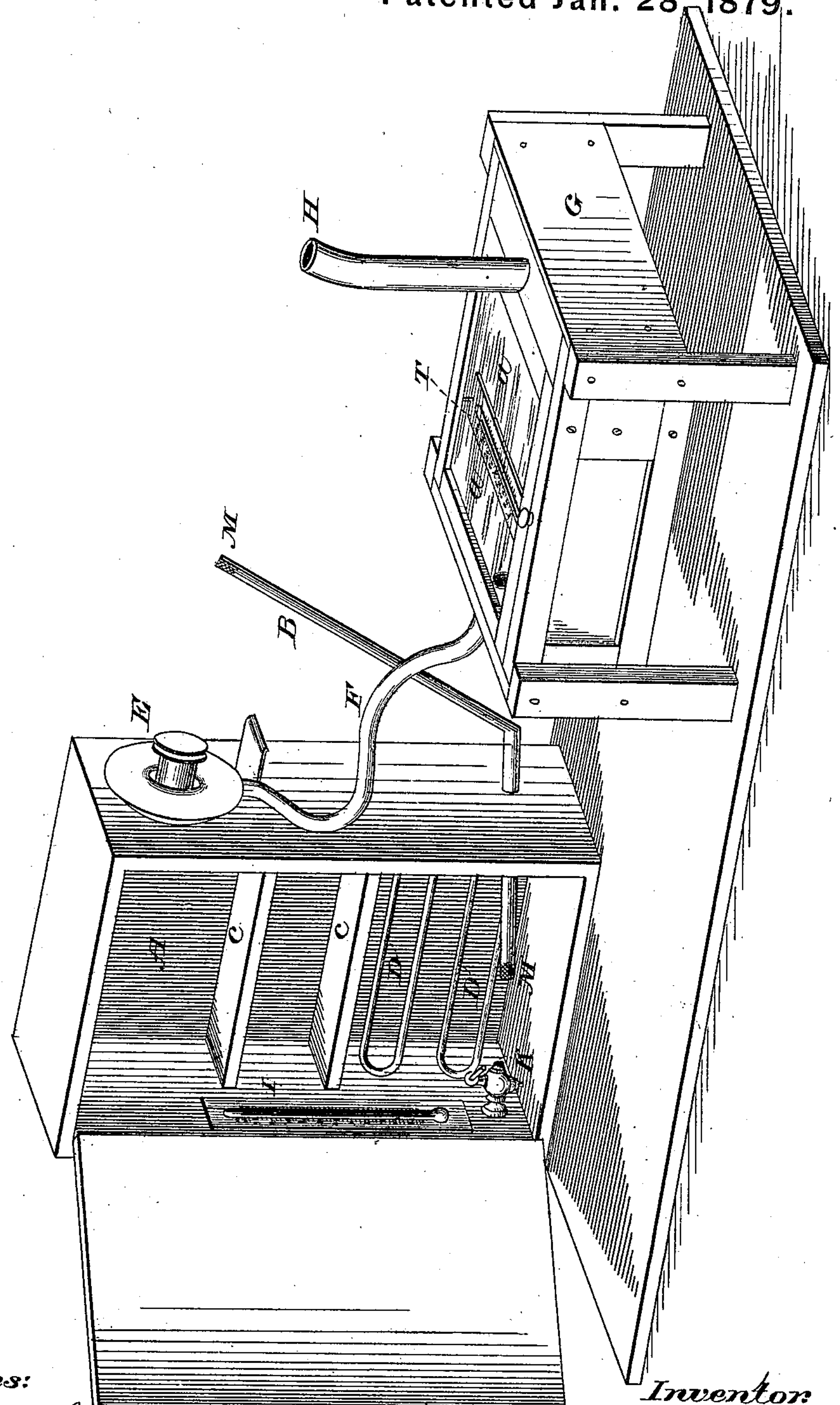
A. F. W. NEYNABER.
Drying-Closets for Pills.

No. 211,770. Patented Jan. 28, 1879.



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UNITED STATES PATENT OFFICE.

ADOLPHUS F. W. NEYNABER, OF NEW YORK, N. Y.

IMPROVEMENT IN DRYING-CLOSETS FOR PILLS.

Specification forming part of Letters Patent No. **211,770**, dated January 28, 1879; application filed April 19, 1878.

To all whom it may concern:

Be it known that I, ADOLPHUS F. W. NEYNABER, of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Drying-Closets for Drying Pills and other pharmaceutical and chemical preparations, which improvement is fully set forth in the following specification and accompanying drawing, which is a perspective view of such an apparatus.

The object of my invention is to furnish an apparatus by which a current of dry air of a certain equal temperature, regulated according to thermometers, can be brought in contact with pills not coated, or coated with gelatine, sugar, licorice, jujube, or any other soluble or not soluble coating, as well as other pharmaceutical or chemical preparations requiring dried and warmed air of a certain equal temperature.

In the drawing, A is a chamber, nearly air-tight, for drying the air drawn from the outside of the building by means of pipe B, so as to get the air as pure as possible. In chamber A are shelves C C, for supporting sieves, trays, boxes, &c., containing pills or preparations nearly dry.

The air admitted through pipe B passes over a coil of steam-pipes, D, or any other heating apparatus, and is then drawn out by blower E, and forced through pipe F into chamber G.

Into chamber G are put sieves, trays, boxes, &c., containing the pills or preparations to be dried. Chamber G has doors on top or in front, with window-glasses *a a*, to enable the operator to look at the preparations without opening the doors.

The air used for drying, charged with moisture absorbed from the preparations contained in chambers A and G, is passed out through pipe H into the open air. Pipe H can be connected with the flue of a chimney.

Thermometers I and T are put into chambers A and G, so that the heating apparatus can be regulated according to them.

It will be seen from the foregoing that when a current of dry air of the proper temperature is passed over such preparations contained in an inclosed narrow chamber, the preparations will dry much quicker than in open air or in a larger room, where the current of air thrown into the room will mix with the moisture evaporated from water or other preparations.

In addition to the fast drying of all preparations, another great advantage of such an apparatus is, that in a room where coating of pills with gelatine or some other preparation is performed, the coated pills can be put into such a chamber in a convenient manner just as the work of coating progresses, without exposing the operator to the strong draft of a blower, by which such work becomes unhealthy and very injurious to all hands employed in such a room.

This apparatus can also be used for bringing pills which are too hard to be put on needles for gelatine-coating in contact with moist air to make them soft. In such a case valve or stop-cock K is opened sufficiently to admit steam into chamber A, which will be rapidly absorbed by the air and brought in contact with pills or preparations contained in chamber A or G. In place of live steam, a basin containing hot water or water heated by a lamp can be put into chamber A.

The flow of air can be regulated by a shifter to bring the belt from a loose to a tight pulley, and can also be diminished, increased, or stopped by gate L, to which the operator has access while he is putting pills or preparations in or taking them out of chambers G or A.

Pipe B has a sieve, M, at the end of the pipe where the air enters, and also a sieve, N, where the air enters chamber A.

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

The combination of chamber A, steam-coil D, blower E, pipe B, stop-cock K, thermometer I, shelves C, connected by means of pipe F, with drying-chamber G, having gate L, thermometer T, and pipe H, all substantially as shown and described.

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