J. WATT.

Improvement in Tobacco-Driers.

No. 128,988. Patented July 16, 1872.

Fig 1

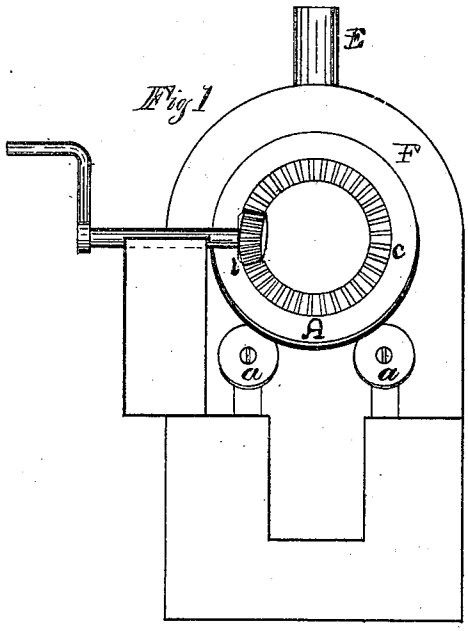


Fig 2

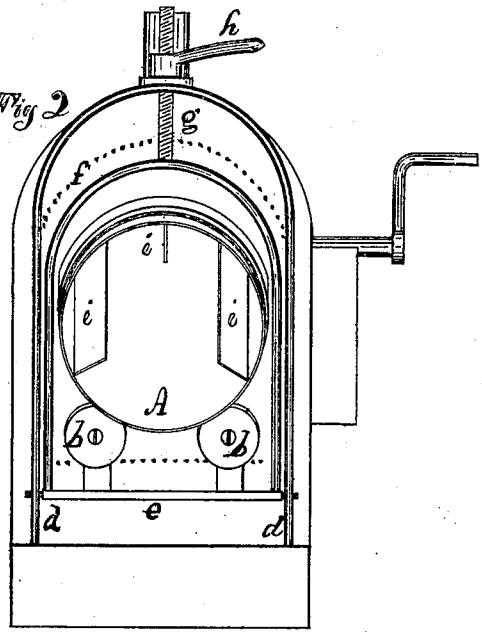
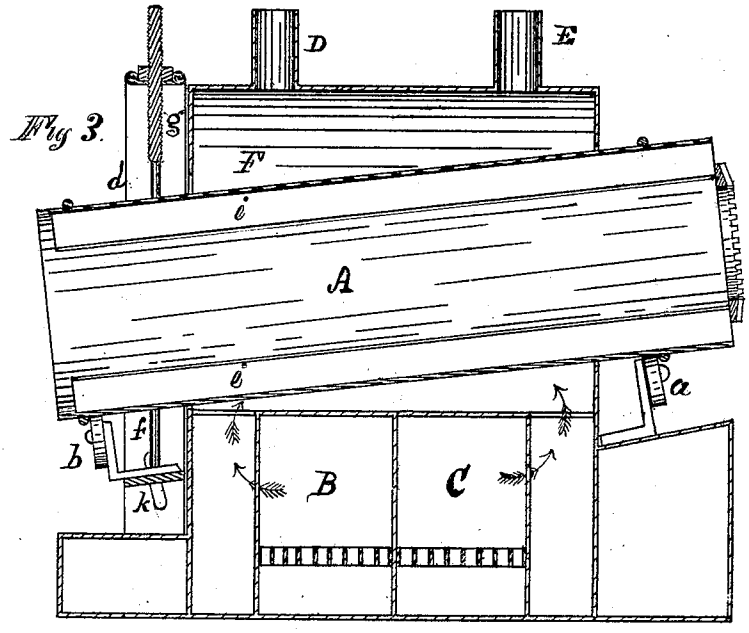


Fig 3.



Witnesses

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JOHN WATT, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN TOBACCO-DRIERS.

Specification forming part of Letters Patent No. 128,988, dated July 16, 1872.

I, JOHN WATT, of Chicago, Illinois, have invented certain new and useful Improvements in Tobacco-Driers; and the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is an elevation of one end of the drier; Fig. 2, an elevation of the opposite end; Fig. 3, a vertical longitudinal section.

Cut tobacco has heretofore been dried in rooms raised to the proper temperature, the process requiring much time and space, and hence being slow and expensive.

In the drawing, A represents a cylinder of sheet-iron or other suitable material, resting upon friction-rollers *a a b b*, which cylinder can be rotated by means of suitable gearing *c l*. Beneath this cylinder are two furnaces, B C, so arranged and constructed that the heat and smoke pass from C to the right, and from B to the left, into and through a chamber or jacket, F, which surrounds the cylinder A, which passes through the ends of the jacket. By the use of two furnaces, or a double furnace, I am able to maintain a more uniform temperature within the case and around the cylinder, as I can alternate from one to the other in adding fresh fuel. I place the cylinder in an inclined position, and am able to adjust it at any desired angle, as follows: Outside of the jacket, and near the lower end of the cylinder, are two standards, *d d*, coming together at the top, and having slots *k* near the lower end. *e* is a cross-bar the ends of which pass into the slots *k*, and upon this bar *e* the friction rollers *b b* are supported. A forked rod, *f f*, is fastened to this cross-bar *e*, the two parts *f f* coming together above the cylinder A, pass (a single rod) through *d d* at the top. This single rod *g* has a screw-thread, and by means of a nut above, this cross-bar *e* can be raised or lowered, thus raising or lowering the end of the cylinder A, as may be necessary to regulate the passage of the tobacco through it. The opening in this outer end of the jacket must be larger, vertically, than the cylinder to permit its movement, and this enlarged opening I cover with a sheet of metal having an opening, in which the cylinder fits, and, moving with the cylinder, suitable guides hold it against the head or end of the jacket. The dotted lines in Fig. 2 indicate the position of this sheet of metal. On the inside of the cylinder and extending the length thereof are three flanges, *i*, about six inches in width.

In use the tobacco to be dried is conducted into the cylinder A, at its upper end, through a spout or in any other suitable manner, the cylinder being revolved by any suitable power; the cylinder being inclined, the tobacco will pass through it slowly and will, in its passage, become sufficiently dry. The flanges *i* perform an important office, keeping the tobacco in separate parcels and preventing it from passing through the cylinder in a mass. The speed of the cylinder and its inclination can be adjusted as circumstances may require, and those skilled in the business will need no instructions on these points.

I do not confine myself to the number of flanges shown, but deem three the best for general use. The inclination of the cylinder can be adjusted by means of a screw placed under the bar *e*, or by means of a lever suitably arranged. Steam might be used for heating.

What I claim as new is as follows:

1. In a tobacco-drying machine the adjustable friction-rollers *b* in combination with the fixed rollers *a* and cylinder A, for adjusting the pitch of the cylinder and regulating the discharge of its contents, substantially as specified.

2. The inclined cylinder A, when provided with the flanges *i*, and capable of vertical adjustment to regulate the discharge of its contents, in combination with the furnaces B and C, and a jacket, F, substantially as and for the purposes set forth.

JOHN WATT.

Witnesses:
E. A. WEST,
O. W. BOND.