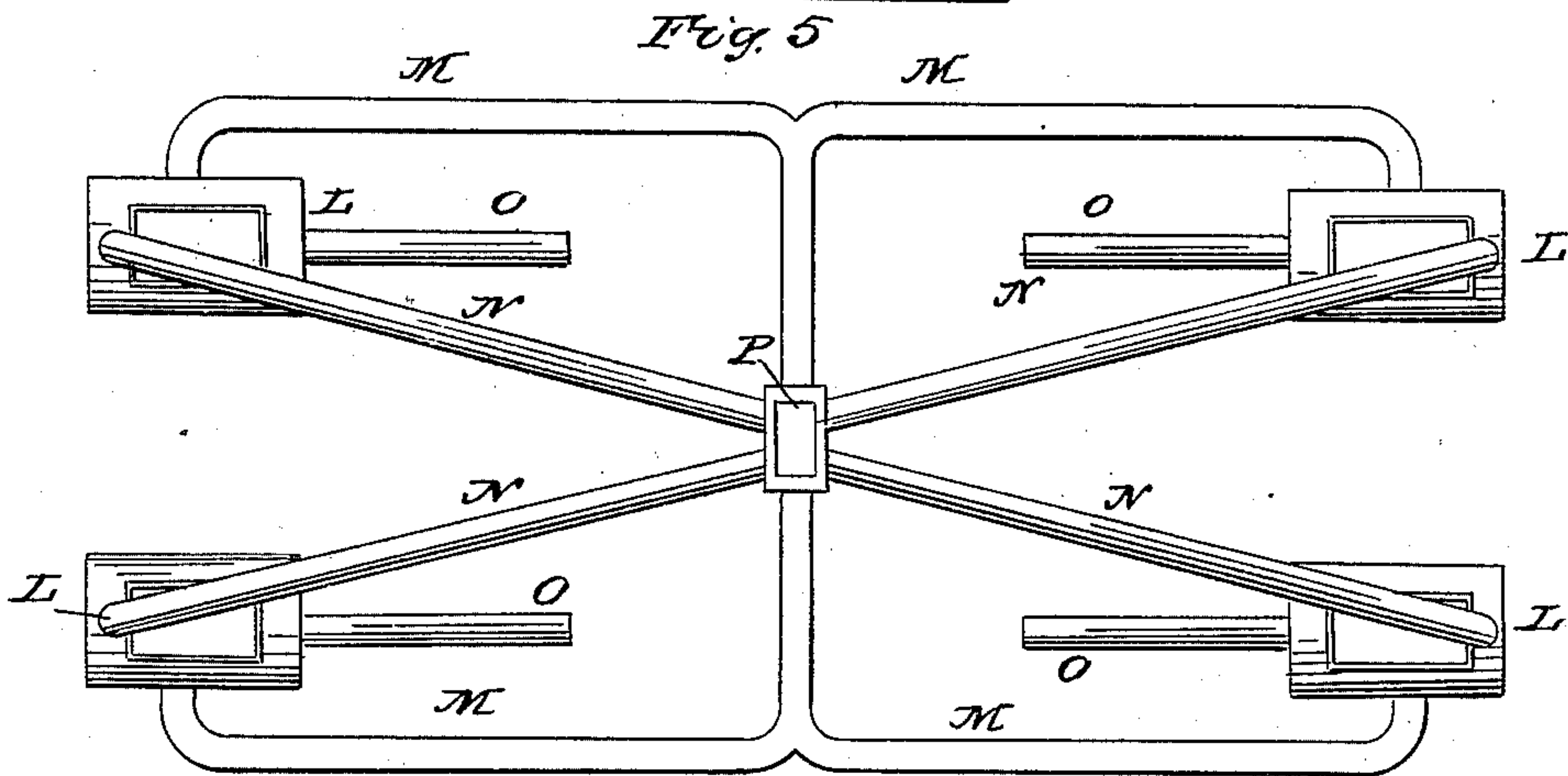
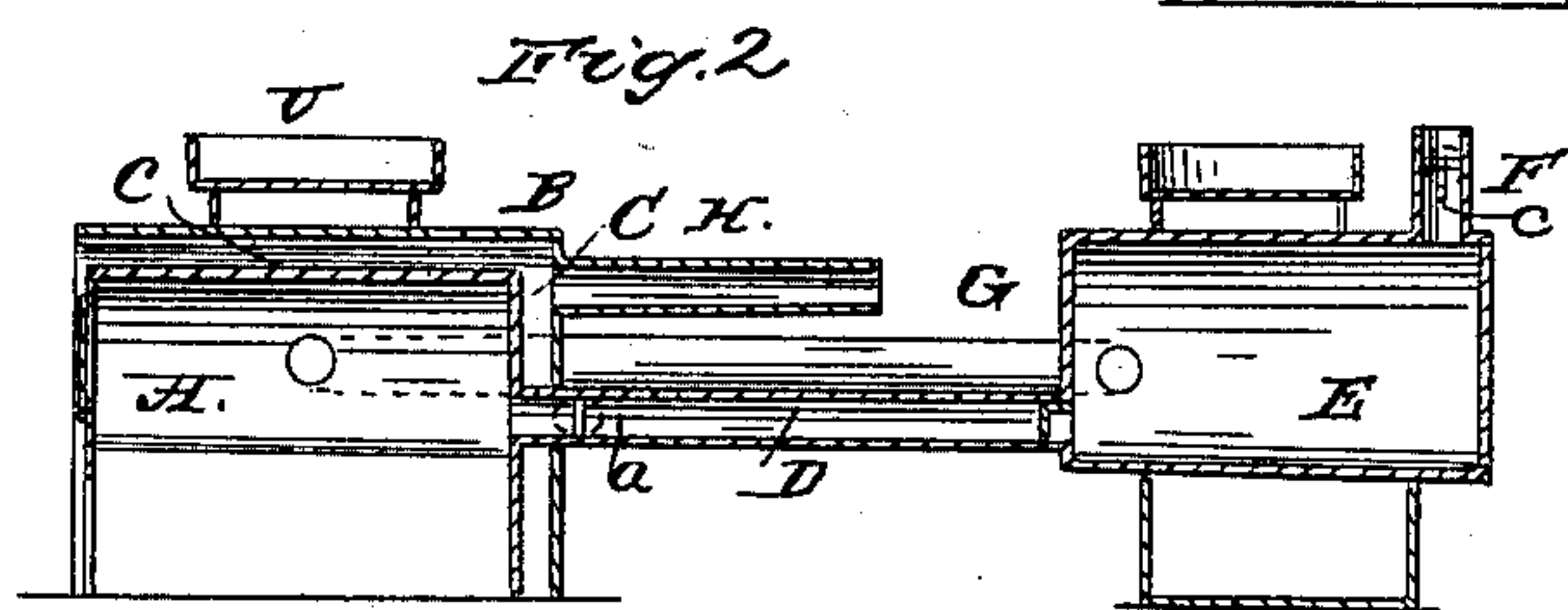
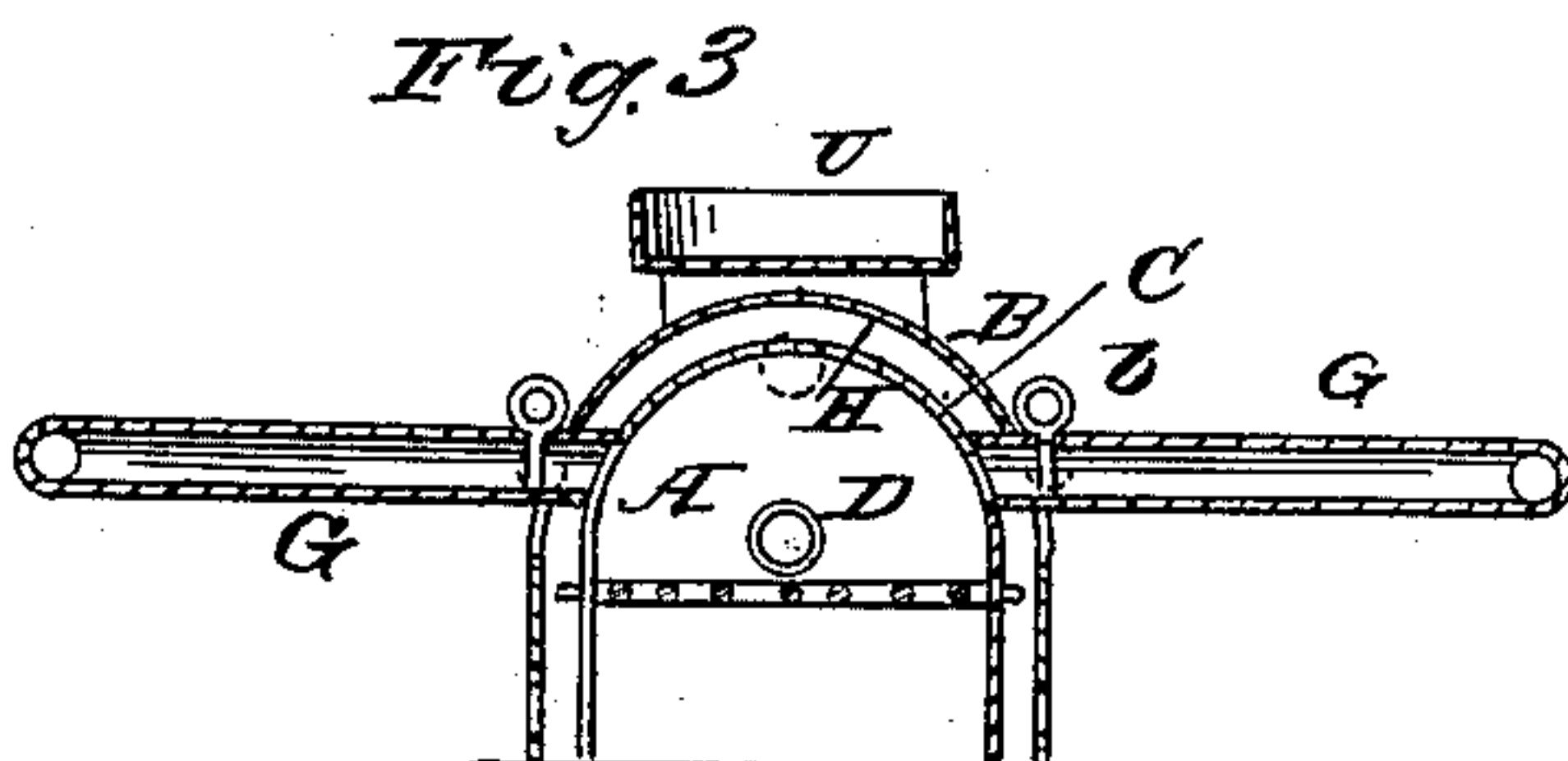
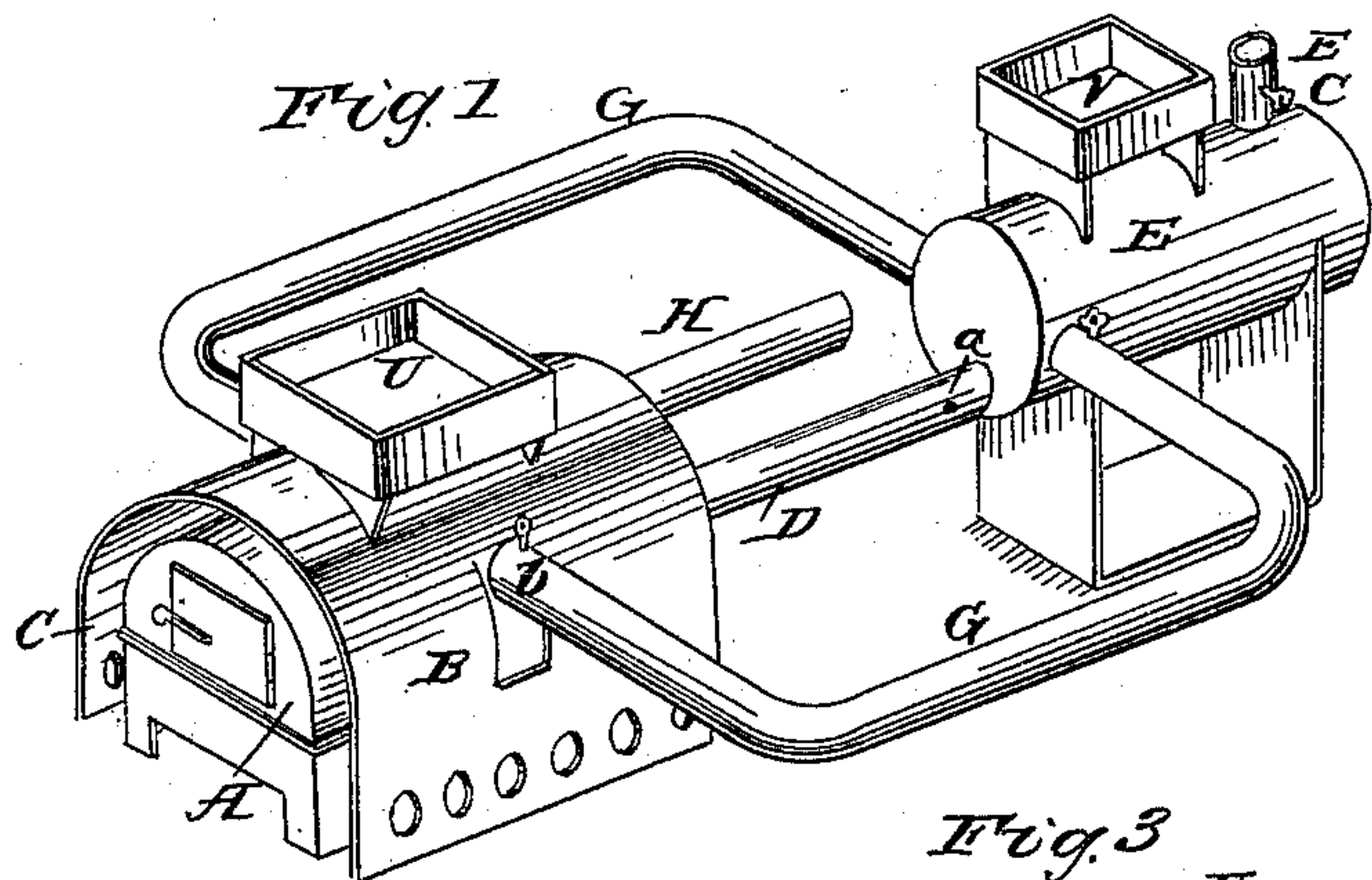


BIBB, NEEDHAM & DORSEY.

Curing Tobacco.

No. 32,610.

Patented June 25, 1861.



Witnesses
Godwin & Atlee
Customs Duties

Inventors
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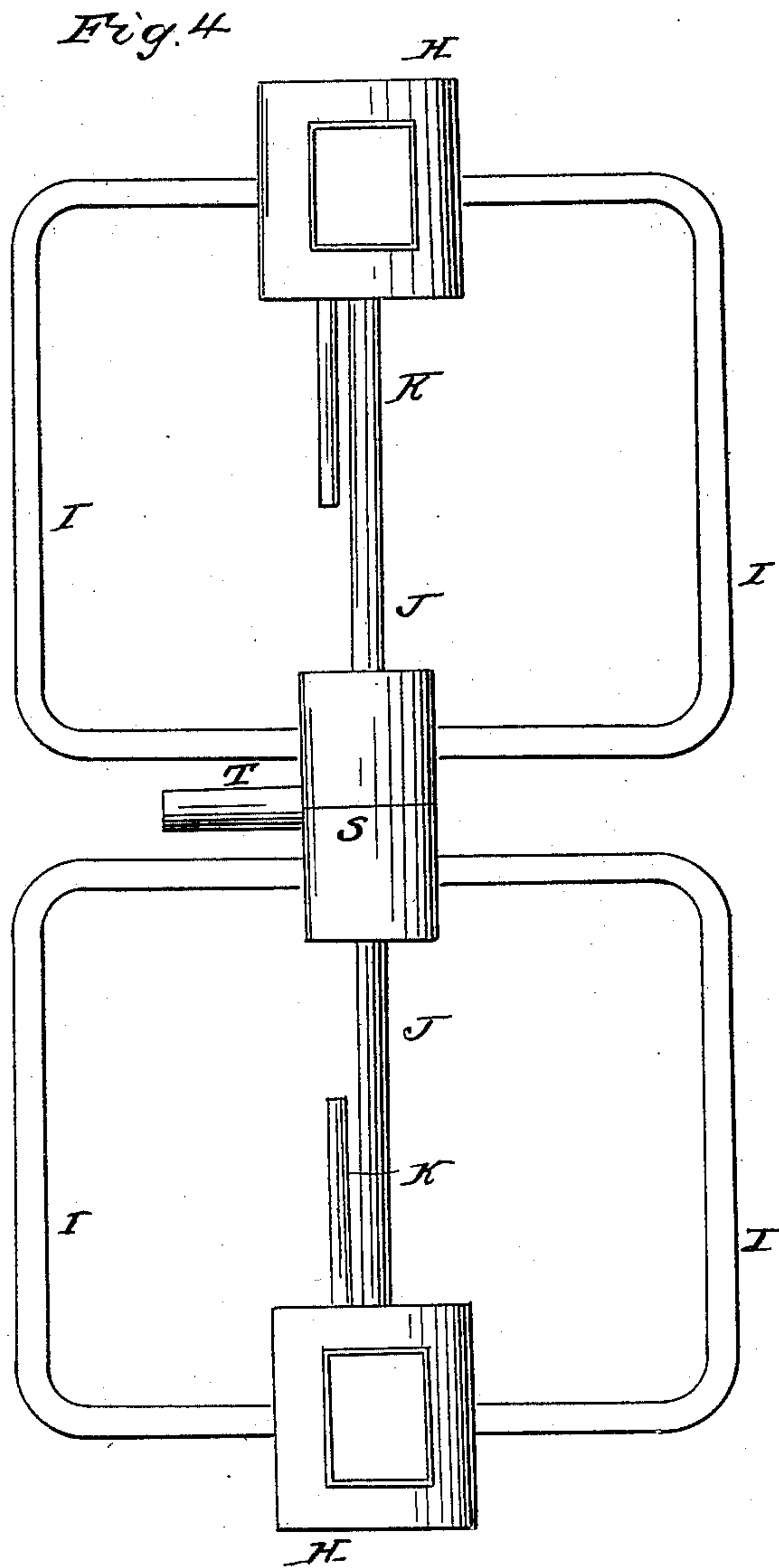
BIBB, NEEDHAM & DORSEY.

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Curing Tobacco.

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UNITED STATES PATENT OFFICE.

BENTLY C. BIBB AND GEORGE F. NEEDHAM, OF BALTIMORE, AND GEORGE W. DORSEY, OF PORT REPUBLIC, MARYLAND.

IMPROVED APPARATUS FOR CURING TOBACCO.

Specification forming part of Letters Patent No. 32,610, dated June 25, 1861.

To all whom it may concern:

Be it known that we, BENTLY C. BIBB and GEORGE F. NEEDHAM, of the city and county of Baltimore, and State of Maryland, and GEORGE W. DORSEY, of Port Republic, in the county of Calvert and State of Maryland, have invented a new and useful Arrangement of Apparatus for Curing Tobacco; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my improved arrangement. Fig. 2 is a longitudinal section, and Fig. 3 a transverse section of the same. Figs. 4 and 5 are plan views showing modifications of my invention.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of our invention consists in the combination and arrangement of a furnace, a hot-air jacket, (with or without evaporating-pan on its top,) heating-pipes, direct-draft pipe, and hot-air-distributing pipe, for the purpose of curing tobacco in a barn or other building.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

A represents a furnace surrounded by a jacket, B, in the manner represented, so that a hot-air chamber, C, is formed between the jacket and the furnace.

D is a direct-draft pipe leading to a drum, E, which has a pipe, F, leading into an appropriate draft flue or chimney, or to the outside air.

G G are angular heating-pipes connecting the interior of the furnace with the drum E, and H is a hot-air-distributing pipe leading from the hot-air chamber C formed by the jacket to the center of the apparatus. The heating and distributing and direct-draft pipes are furnished with appropriate dampers, *a b c*.

The whole apparatus described is to be arranged within a barn or other building in which tobacco is dried or cured. It is adapted for properly heating a barn which incloses a space of twenty-four by forty-eight feet.

In case it is desired to apply the apparatus

to a barn which incloses a space of twenty-eight by fifty feet, two furnaces, H' H', with hot-air jackets may be used, and the heating-pipes I I, the direct-draft pipes J J, the distributing-pipes K K, and drum S with pipe T leading to the chimney, all being arranged as represented in Fig. 4; and in case it is desired to apply it to a barn inclosing a space of forty by sixty feet, four furnaces, L L L L, with hot-air jackets may be used, and the heating-pipes M M M M, direct-draft pipes N N N N, distributing-pipes O O O O, and chimney-flue P, or drum with pipe leading to the same, be arranged as represented in Fig. 5.

In both the modifications just described suitable dampers are, of course, to be provided in the respective pipes.

U U represent removable evaporating-pans placed on top of the furnace and drum. These pans at a certain stage of the process are brought into requisition.

From the foregoing description, and inspection of Fig. 1 of the drawings, it will be seen that the furnace occupies one end, the drum the other, the heating-pipes the sides, and the distributing-pipes the center, of the drying-room, and therefore a perfect heating of the room at all points is effected.

Our apparatus operates as follows: The stalks of tobacco being strung up in the room, the fire in the furnace is started, so as to heat the room to a temperature of about 80°. This temperature is maintained a sufficient length of time to bring the tobacco to a proper condition for curing. The temperature is then raised to about 130°, and the same maintained until the tobacco has been perfectly cured. Now, in order to handle the tobacco for packing without crumbling it, it is necessary to moisten it to a certain extent. To accomplish this the pans are supplied with water and the heat of the furnace raised high enough to cause an evaporation of the water, or the generation of steam, which circulates among the tobacco, moistens it in the most delicate yet most effectual and expeditious manner. After this the tobacco is handled and packed ready for the market.

The several stages of the process have been alluded to in a manner that would give the idea that they were performed in immediate

succession; but generally this is not the case. Several days or weeks are sometimes allowed to elapse between the preparing and curing and packing operations.

It is believed that our mode of preparing, curing, and dampening tobacco by artificial heat and by steam or vapor will prove of vast benefit to the tobacco-grower and the public, as time will be saved and loss by being crowded from the crop prevented, and the quality of the tobacco greatly improved.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination and arrangement of a fur-

nace, A, a hot-air jacket, B, with or without evaporating-pan on its top, heating-pipes G G, direct-draft pipe D, and hot-air-distributing pipe H, for the purpose of drying tobacco in a barn or other building, substantially as set forth.

BENTLY C. BIBB.
GEO. F. NEEDHAM.
GEO. W. DORSEY.

Witnesses:

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AND. C. GREGG,
W. P. DORSEY.