

No. 664,373.

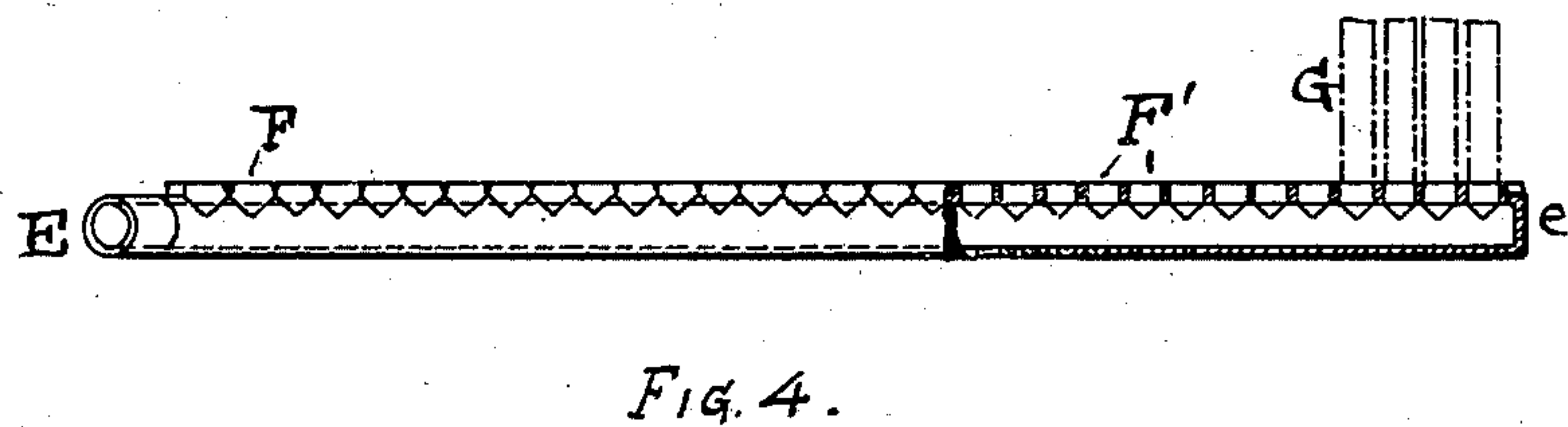
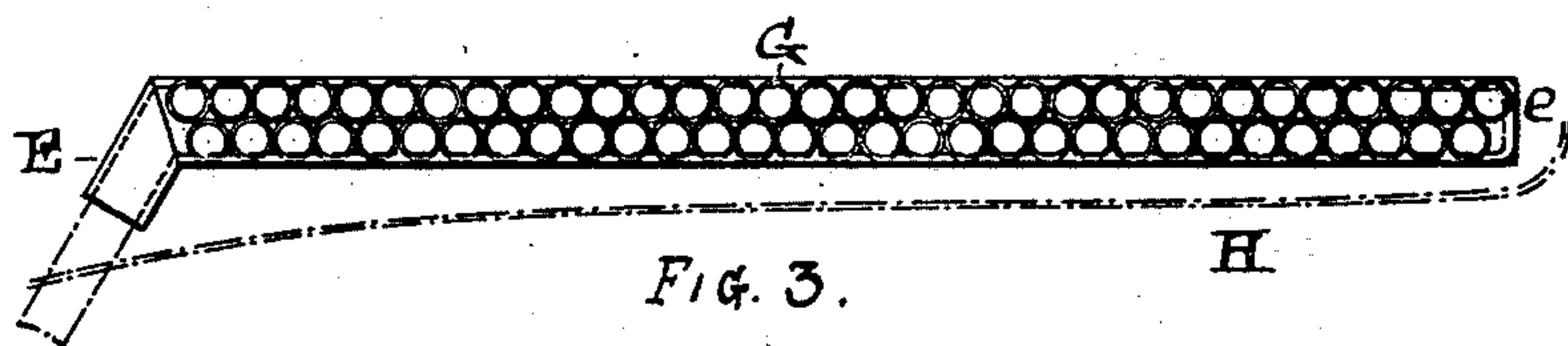
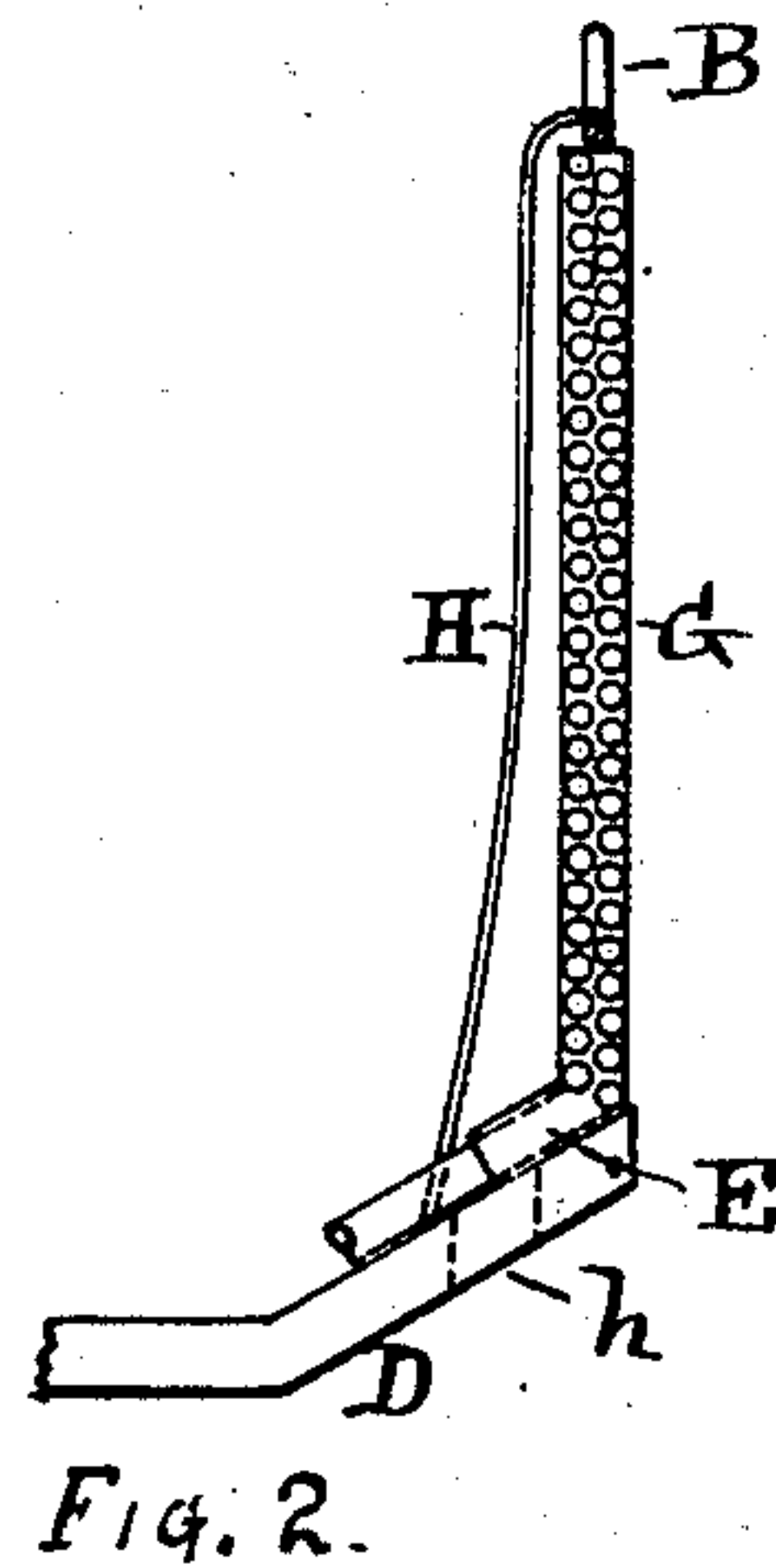
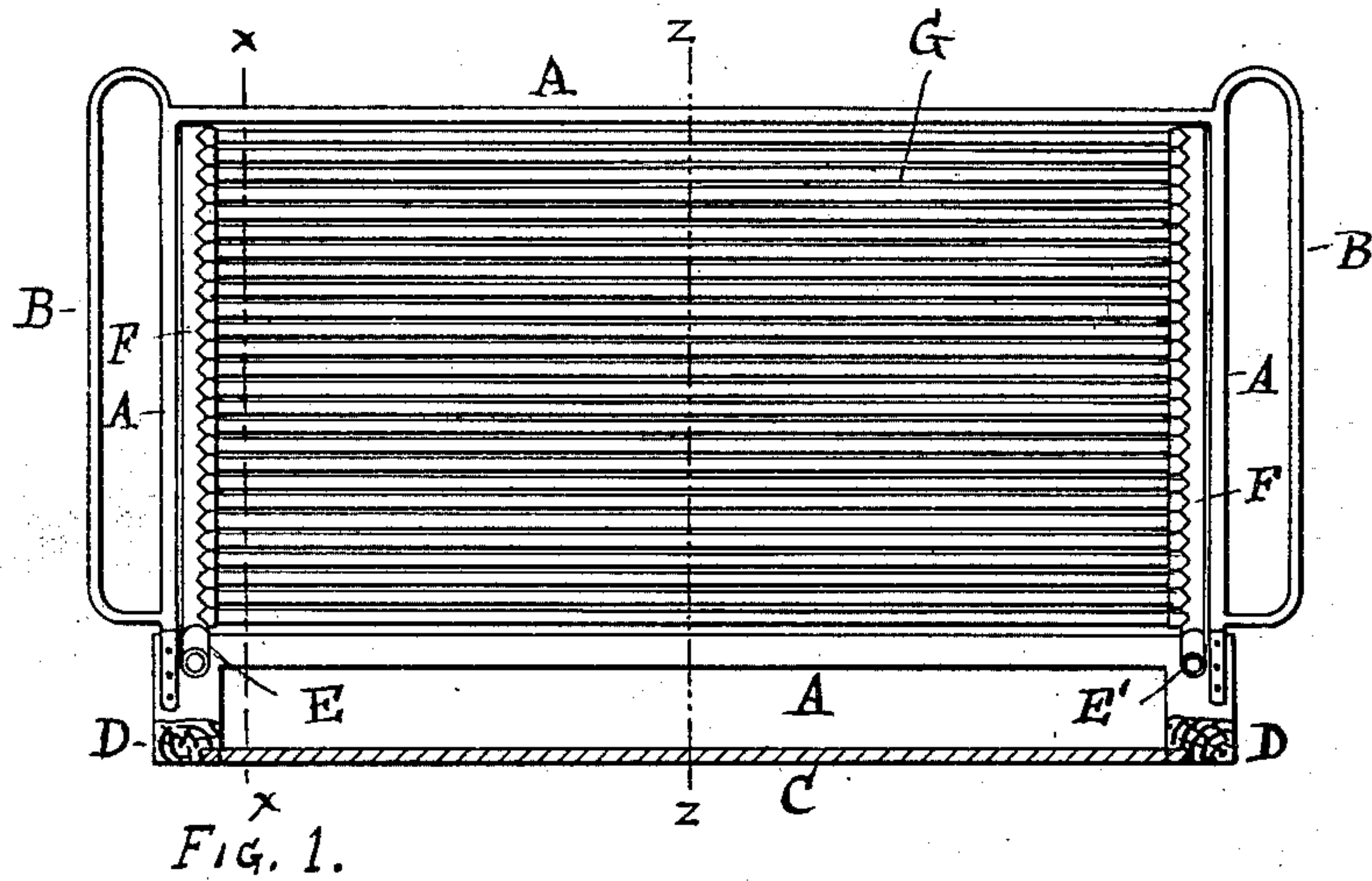
Patented Dec. 25, 1900.

L. F. N. BALDWIN.

COMBINED CONDENSER AND DASHBOARD FOR AUTOMOBILES.

(Application filed May 3, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

LEON F. N. BALDWIN, OF PROVIDENCE, RHODE ISLAND.

COMBINED CONDENSER AND DASHBOARD FOR AUTOMOBILES.

SPECIFICATION forming part of Letters Patent No. 664,373, dated December 25, 1900.

Application filed May 3, 1900. Serial No. 15,344. (No model.)

To all whom it may concern:

Be it known that I, LEON F. N. BALDWIN, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in a Combined Steam-Condenser and Dashboard for Automobile Vehicles, of which the following is a specification, reference being had therein to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a front elevation of my improved combined steam-condenser and dashboard for automobile vehicles. Fig. 2 is a view of the same, partly in side elevation and partly in section, on line *xx* of Fig. 1. Fig. 3 is a view of the same as seen on line *zz* of Fig. 1. Fig. 4 is a view, one-half in elevation and one-half in central longitudinal section, of the pipe for exhaust-steam and the perforated boss thereon for the insertion of the cross-pipes.

My invention is a device for the condensation of exhaust-steam from the cylinder of a steam-engine and is adapted for use in automobile vehicles and constitutes a dashboard therefor.

Said invention consists of the novel construction and combination of the several elements hereinafter described, and specifically set forth in the claims.

In the drawings, A A represent the frame of a dashboard, and B B the hand-rails on the sides thereof.

C is the floor, and D the sill, of the vehicle, upon which the frame A is mounted and fastened, as shown in Fig. 1 or in any suitable manner.

Upon the sides of the frame A of the dashboard are properly mounted two vertical steam-pipes E E', whose upper ends are closed, as seen at *e* in Fig. 4. The pipes E E' are cast with an integral longitudinal boss F thereon. Through the boss F are two rows of circular or tubular openings F'.

Cross-pipes G extend from the tubular openings F', respectively, of the boss F of the pipe E to the correspondingly-located openings F' of the boss of the pipe E', and all said cross-pipes G at their ends open into said pipes E E'. These cross-pipes G are placed close to each other in the arrangement illustrated in Fig. 3.

A deflecting-plate H, properly shaped and

curved, is supported at the top and bottom, as shown in Fig. 2, and is separated a short space from the pipes G on the inner side of the dashboard, and *h*, as indicated by dotted lines in Fig. 2, denotes an open space in the floor C of the vehicle between the dashboard and deflector H. At the lower ends of the vertical pipes E E' are connecting-pipes extending from them to the cylinder or tank, as the case may be.

The exhaust-steam from the cylinder of the steam-engine passes into the vertical steam-pipe E throughout the entire length thereof. As the cross-pipes G all open from said steam-pipe E, the steam passes from said pipe E through all of said cross-pipes G at the same time into the steam-pipe E' and out of the steam-pipe E' to the water-tank. (Not shown.) In this manner the steam from the pipe E is greatly diffused in the cross-pipes G and is there condensed, because of the great extent of the exterior surfaces of said pipes G, which surfaces are always exposed to the external air. These cross-pipes G, lying close together and one row behind the other, constitute the body portion of the dashboard, and as the vehicle moves forward, especially if moving rapidly, a large volume of cold air comes in contact with said pipes. The air-currents, however, pass between the pipes G and, coming in contact with the inner surface of the deflector H, are diverted downward and pass out through the opening *h* in the floor of the vehicle, as shown in Fig. 2. The purpose of this deflector H is to protect the occupant of the vehicle from these air-currents, as also to protect him from coming into contact with said steam-pipes when heated by the passing of steam through them. The water resulting from the condensation of steam in the pipes G flows down through the pipe E' to the water-tank.

It is obvious that instead of using this apparatus for the condensation of steam it may be used as a hot-water cooler; but such use would be within the scope of my invention.

I claim as a novel and useful invention and desire to secure by Letters Patent—

1. In an automobile vehicle, the combination of a dashboard-frame, a vertical pipe mounted on said frame and having a closed upper end and adapted to receive exhaust-

steam from a receptacle containing the same, a vertical pipe, having a closed upper end, and adapted to discharge from its lower end, and mounted on said frame parallel with the first-named pipe, and a series of parallel cross-pipes extending from one of said vertical pipes to the other and opening into both said pipes, said parallel cross-pipes constituting the body portion of the dashboard within said frame, substantially as shown.

2. In an automobile vehicle, the combination of a dashboard-frame, a vertical pipe mounted on said frame and adapted to receive exhaust-steam from a receptacle containing the same, said pipe being closed at its upper end and having a longitudinal boss, through which are tubular openings arranged in rows, a second vertical pipe having a closed upper end and a like perforated longitudinal boss and mounted upon said frame parallel with the first-named pipe, and a series of parallel cross-pipes extending from the tubular openings of the longitudinal boss of one of said vertical pipes to the correspondingly-located tubular openings of the boss of the other of said vertical pipes, said parallel cross-pipes constituting the body portion of the dashboard within said frame, substantially as described.

3. In an automobile vehicle having a floor

and sills, the combination of a dashboard-frame mounted thereon, a vertical pipe mounted on said frame and adapted to receive exhaust-steam from a receptacle containing the same, said pipe having a closed upper end and a longitudinal boss through which are tubular openings arranged in rows, a second vertical pipe having a closed upper end and a like perforated longitudinal boss and mounted on said frame parallel with the first-named pipe, a series of parallel cross-pipes extending from the tubular openings of the longitudinal boss of one of said vertical pipes to the correspondingly-located tubular openings of the boss of the other of said vertical pipes, said parallel cross-pipes constituting the body portion of the dashboard within said frame, and a deflector-plate properly mounted and supported a slight distance from said pipes and adapted and arranged to direct the air-currents passing between said cross-pipes downward through an opening in the floor, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

LEON F. N. BALDWIN.

Witnesses:

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