

No. 609,267.

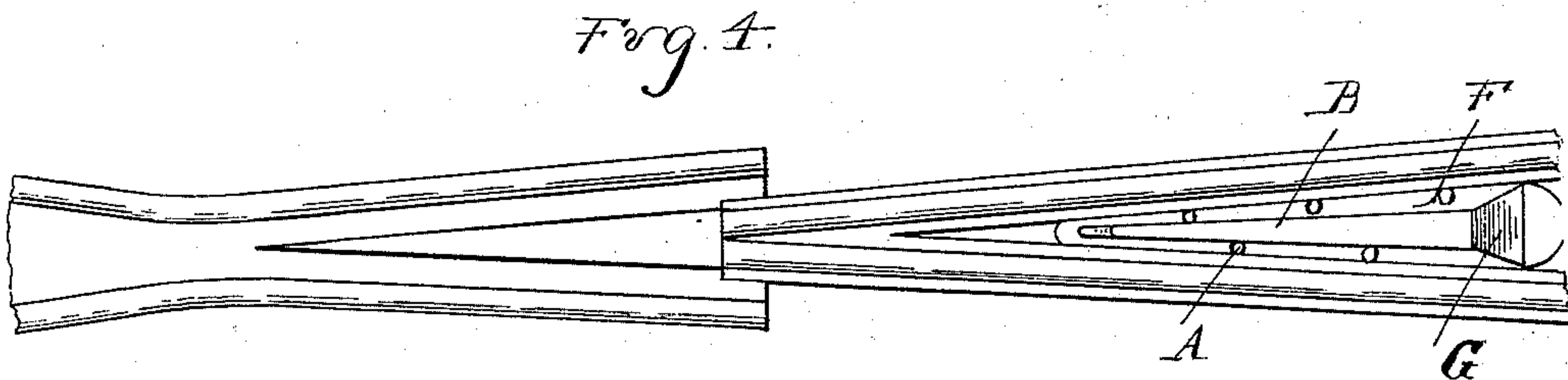
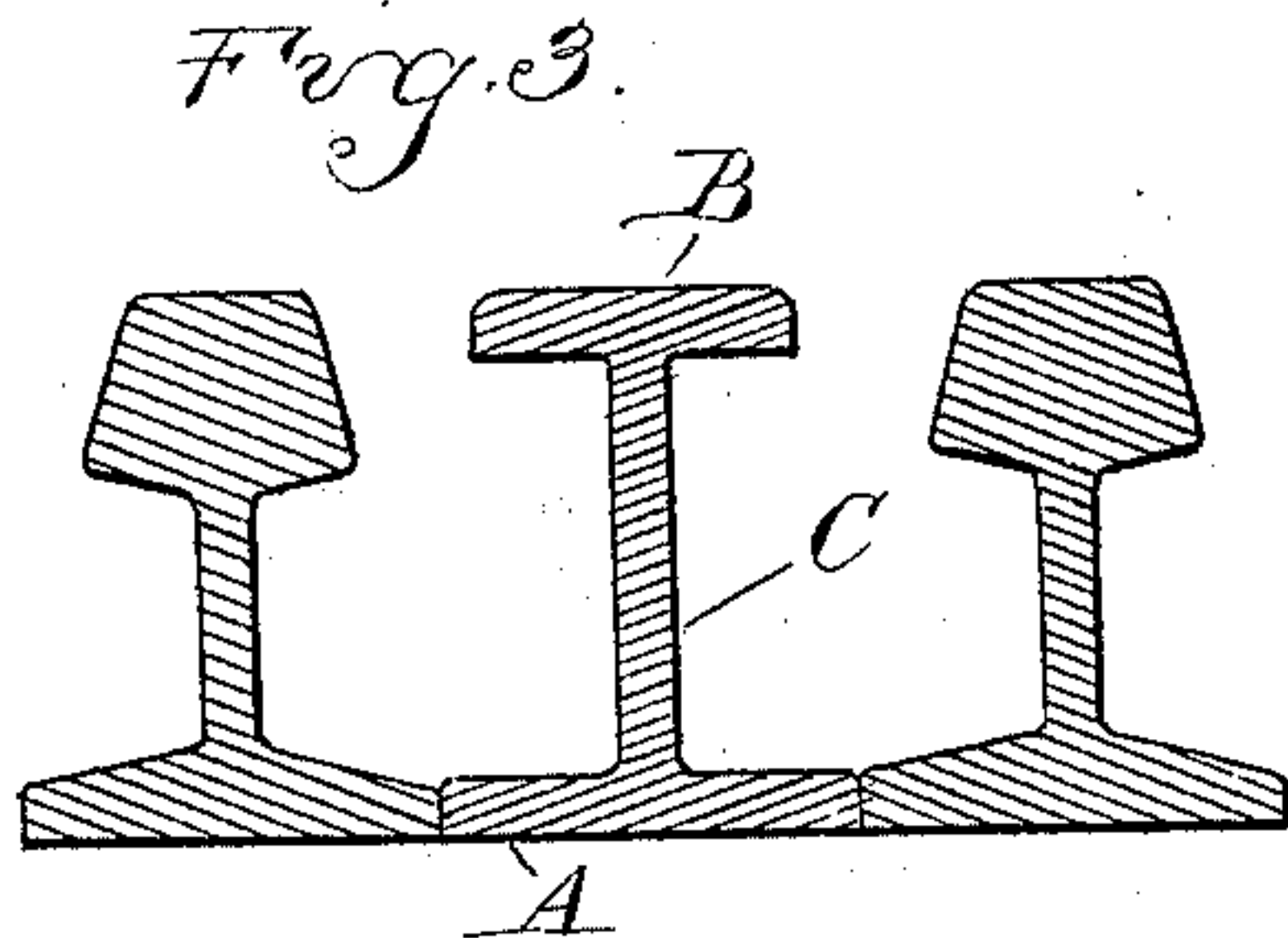
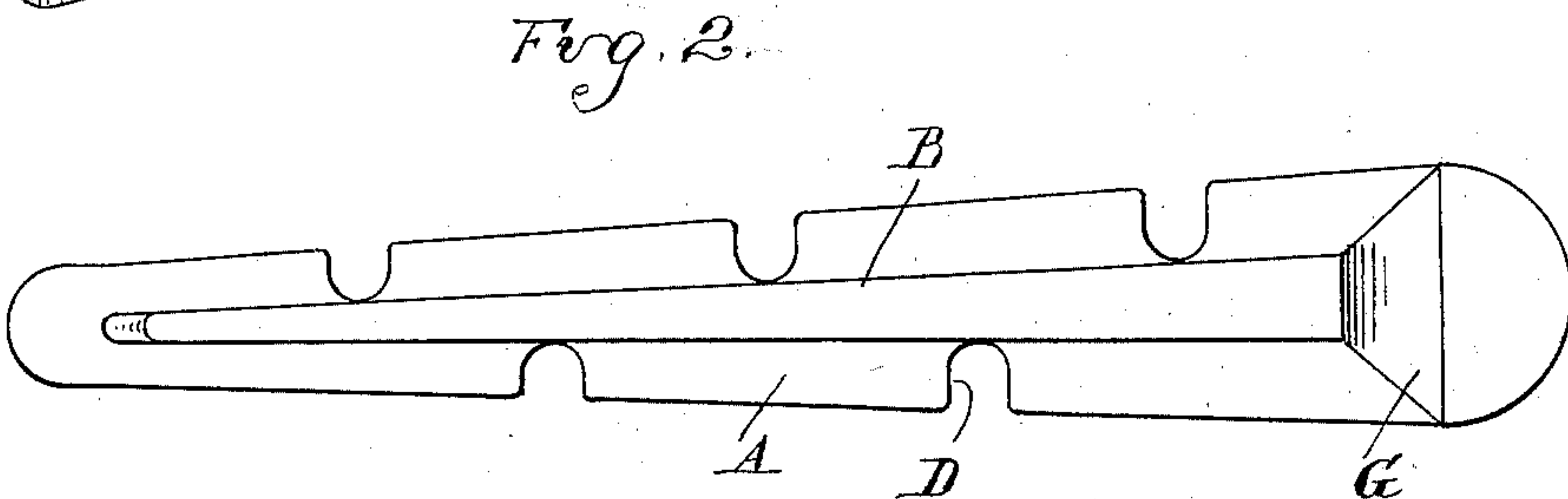
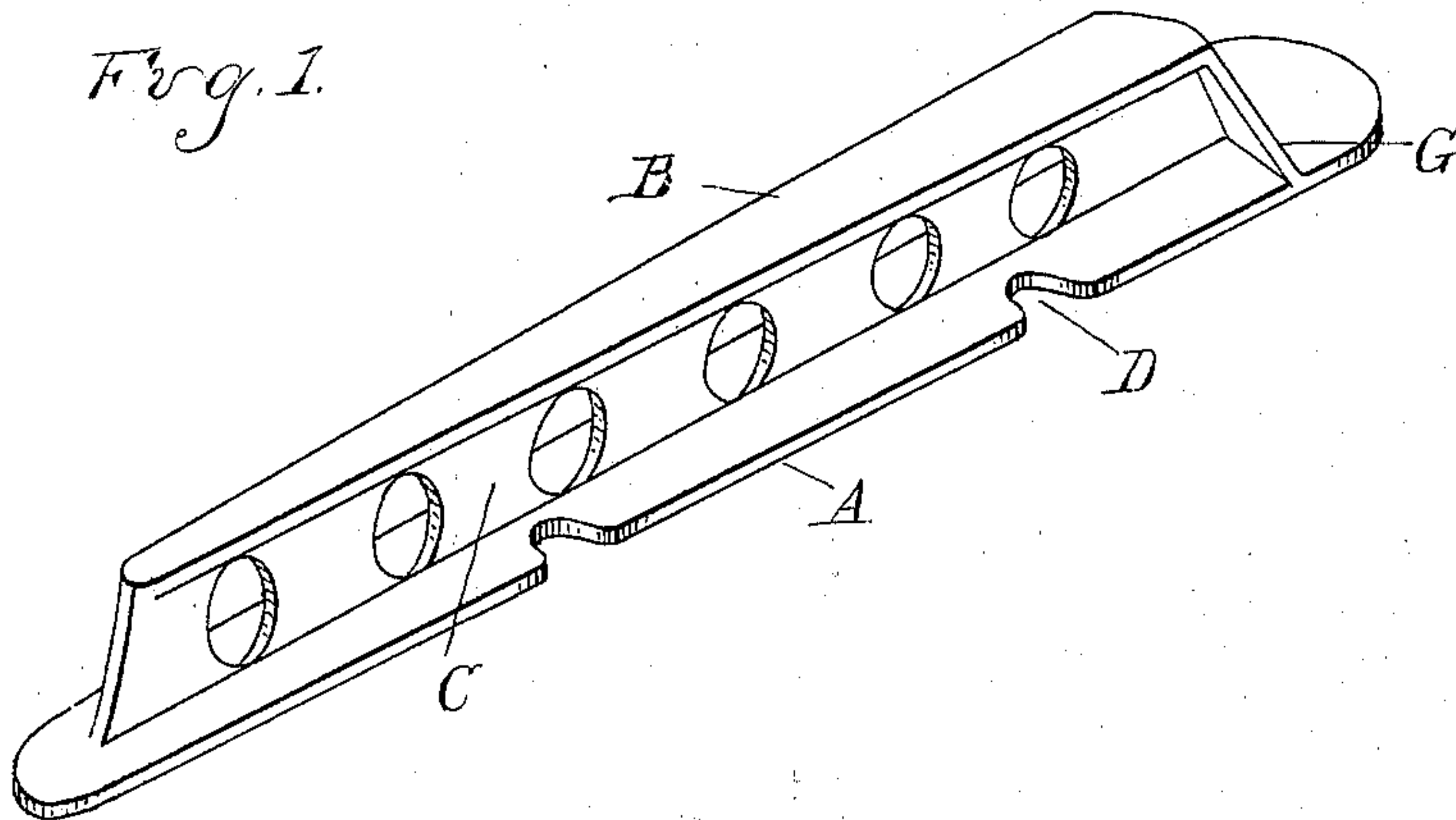
Patented Aug. 16, 1898.

J. DONOVAN.

FOOT GUARD FOR RAILWAY SWITCHES.

(Application filed Mar. 7, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JAMES DONOVAN, OF THREE RIVERS, MICHIGAN, ASSIGNOR TO THE
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FOOT-GUARD FOR RAILWAY-SWITCHES.

SPECIFICATION forming part of Letters Patent No. 609,267, dated August 16, 1898.

Application filed March 7, 1898. Serial No. 672,851. (No model.)

To all whom it may concern:

Be it known that I, JAMES DONOVAN, a citizen of the United States, residing at Three Rivers, in the county of St. Joseph and State of Michigan, have invented certain new and useful Improvements in Foot-Guards for Railway-Switches, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the construction of a foot-guard for railway-switches and comprises a foot-guard in the form of a blocking which will reduce the size of any aperture there may be between the rails, so that the foot of a man cannot possibly be caught therein, and at the same time dispenses with the necessity of using depressible or spring plates for that part where the flange of the wheel runs.

To this end the invention consists in the construction, arrangement, and combination of the parts, all as more fully hereinafter described.

In the drawings, Figure 1 is a perspective view of my improved device. Fig. 2 is a top plan view thereof. Fig. 3 is a cross-sectional view of Fig. 4. Fig. 4 is a plan view of a section of switch, showing my improved device as in use.

In the present state of the art it is customary for railroads to block up the opening between the switches by means of wood blocks which fill the entire space or by the use of plates of sheet metal or other material either supported by springs or having spring-flanges adapted to be depressed by the wheel-flanges in the passage of the train. It has also been proposed to use plates or blocking sufficiently low so that there was no projecting parts for the wheel-flange to strike.

The objection to devices in which spring-supports or spring-flanges were used is the fact that the impact of the wheels is either apt to break them or wear them out, and consequently they require constant care.

The objection to those devices which are sufficiently below the top to clear the wheel-flange is that there yet remains a sufficient depth to catch the foot of a passer-by, and as accidents usually happen when trains are

in close proximity such devices are considered by the railroads as utterly impracticable, because they often result in accidents.

The use of the wood blocking is objectionable because of the short life of the wood, because it rots out not only the blocking itself, but the tie on which it is superimposed, and because, in fact, in repairing it takes considerable time and trouble to remove the block, which necessarily must be done in order to reach the parts covered thereby.

My invention is intended to overcome objections existing in the present devices and is the result of much practical experience and experiment to produce a device which will give a flush surface with the top of the rails, will give free passage for the flange of the wheel without moving any flexible parts, and which when it is in place does not interfere with the inspection or driving of the spikes at the rail-joint, and at the same time is cheap, simple, and easily applied.

In the construction of my invention I preferably make it of one piece of cast-iron; and it consists of the base-plate A, the guard-plate B, and the supporting-web C. The base-plate is of such length and size as to give proper bearing upon the ties and produce a secure and steady support for the guard-plate. The web C may be of any shape, it being only essential that it shall be of such strength as to properly support the guard-plate B. The base-plate is provided, preferably, with notches D, by means of which it may be spiked or otherwise secured to the ties in the track.

The guard-plate B is of such a width and such a length that when supported in position in the track—as, for instance, at a switch-point—there will be left on the sides free openings F, giving ample room for the passage of the flange of the wheel without touching the guard-plate and at the same time leaving an opening of such small width as to prevent the possibility of the foot of any passer-by being caught therein.

I may and preferably do provide at the end of the guard-plate an end guard-plate G, extending from the guard-plate B down to the base-plate and which enlarges toward the

bottom, so as to effectually stop up the end of the rail-opening, as will plainly be seen by examination of Fig. 2.

The openings F permit implements to be
5 inserted to clean out snow or ice that may collect in the rail-points and to examine, drive, or draw securing devices for the rails or the guard, and at the same time the tapering guard-plate B forms a perfectly-rigid
10 support between the rail-points, and substantially on a level with the top thereof, for the foot of any passer-by.

What I claim as my invention is—

1. As an article of manufacture, a foot-
15 guard for railway-switches, &c., comprising a base-plate, a guard-plate sufficiently narrower than the opening between the switch-points to leave a space F on the sides, and a

rigid supporting-web between the base-plate and guard-plate of a height to bring the top 20 of the guard-plate substantially in line with the top rail-faces.

2. As an article of manufacture, a rail-guard comprising a tapering notched base-plate A, a central, vertical web C thereon, 25 the narrow tapering guard-plate B supported on said web, the tapered end guard-plate G extending across the end of the web, the parts being arranged as and for the purpose described. 30

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

JAMES DONOVAN.

Witnesses:

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