

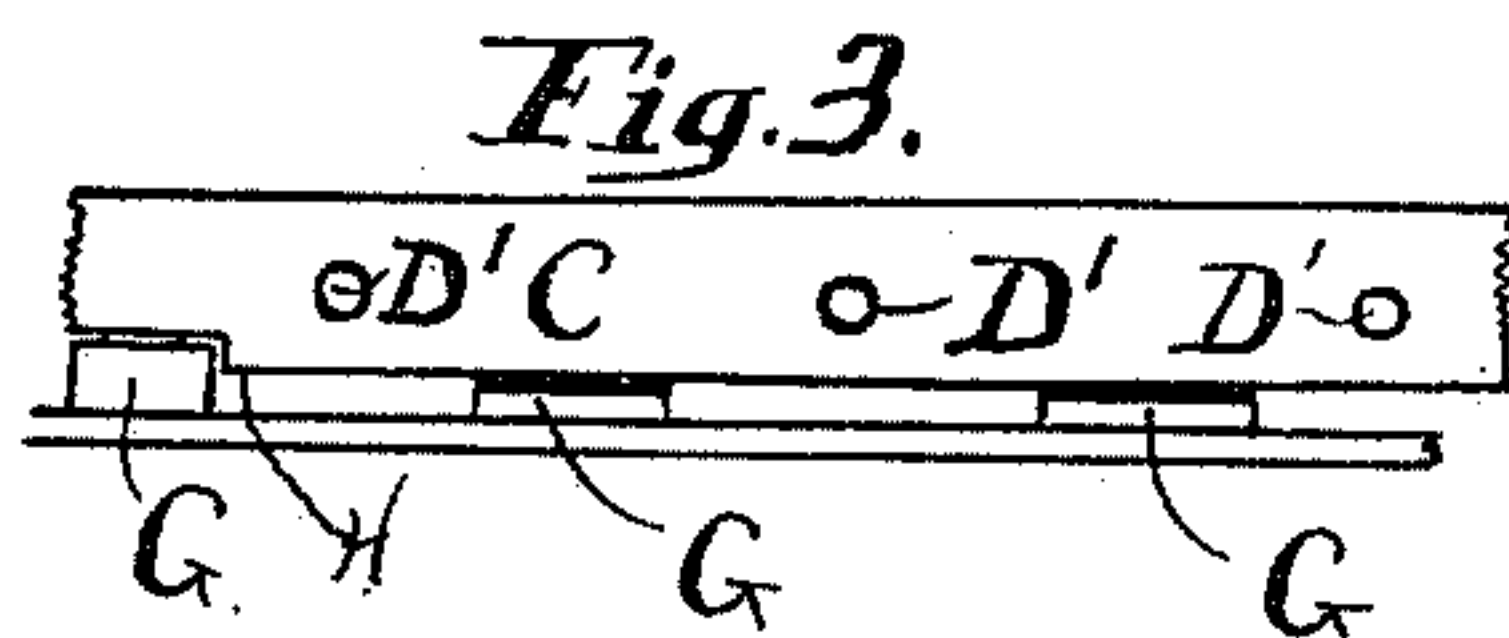
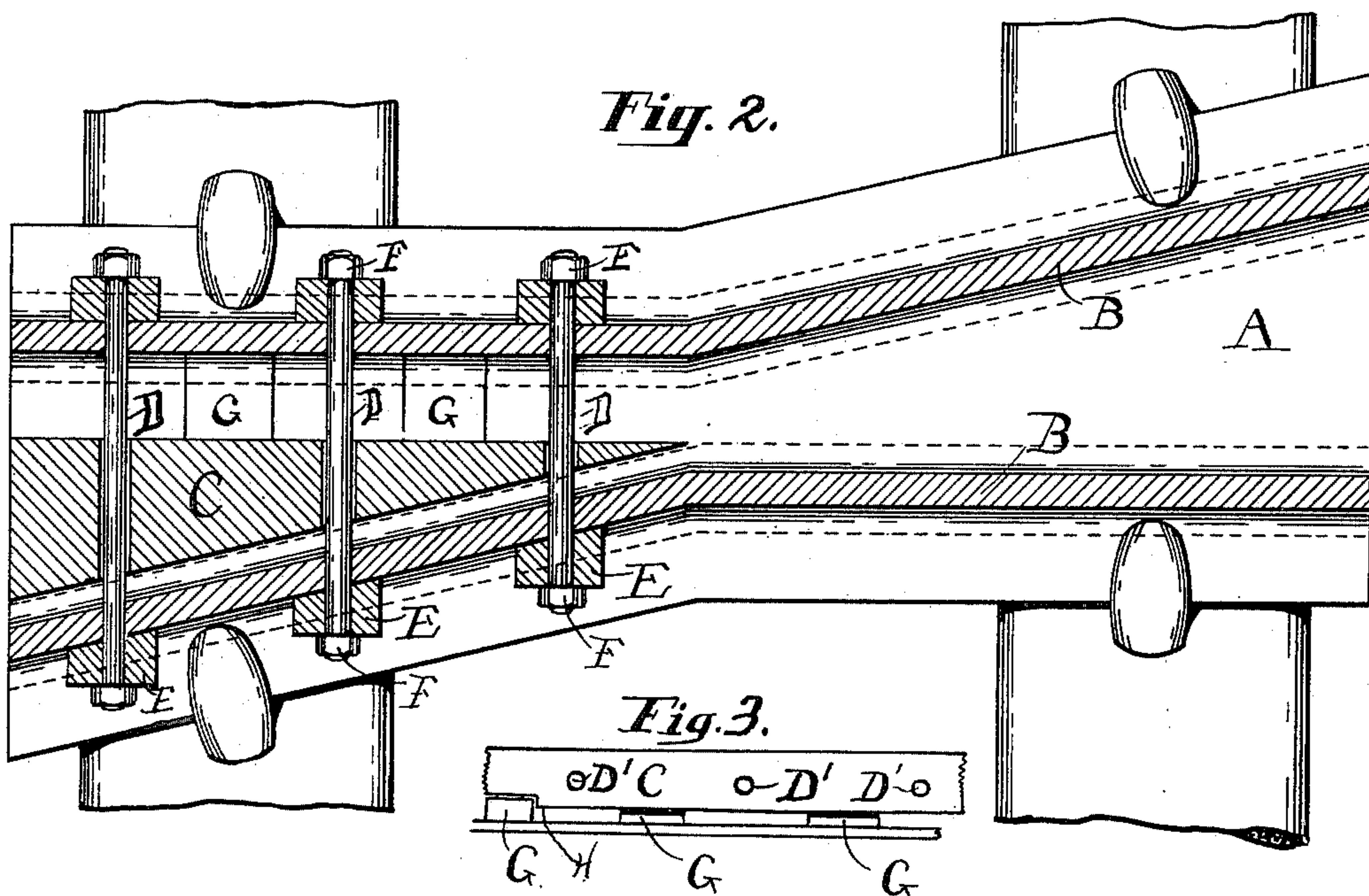
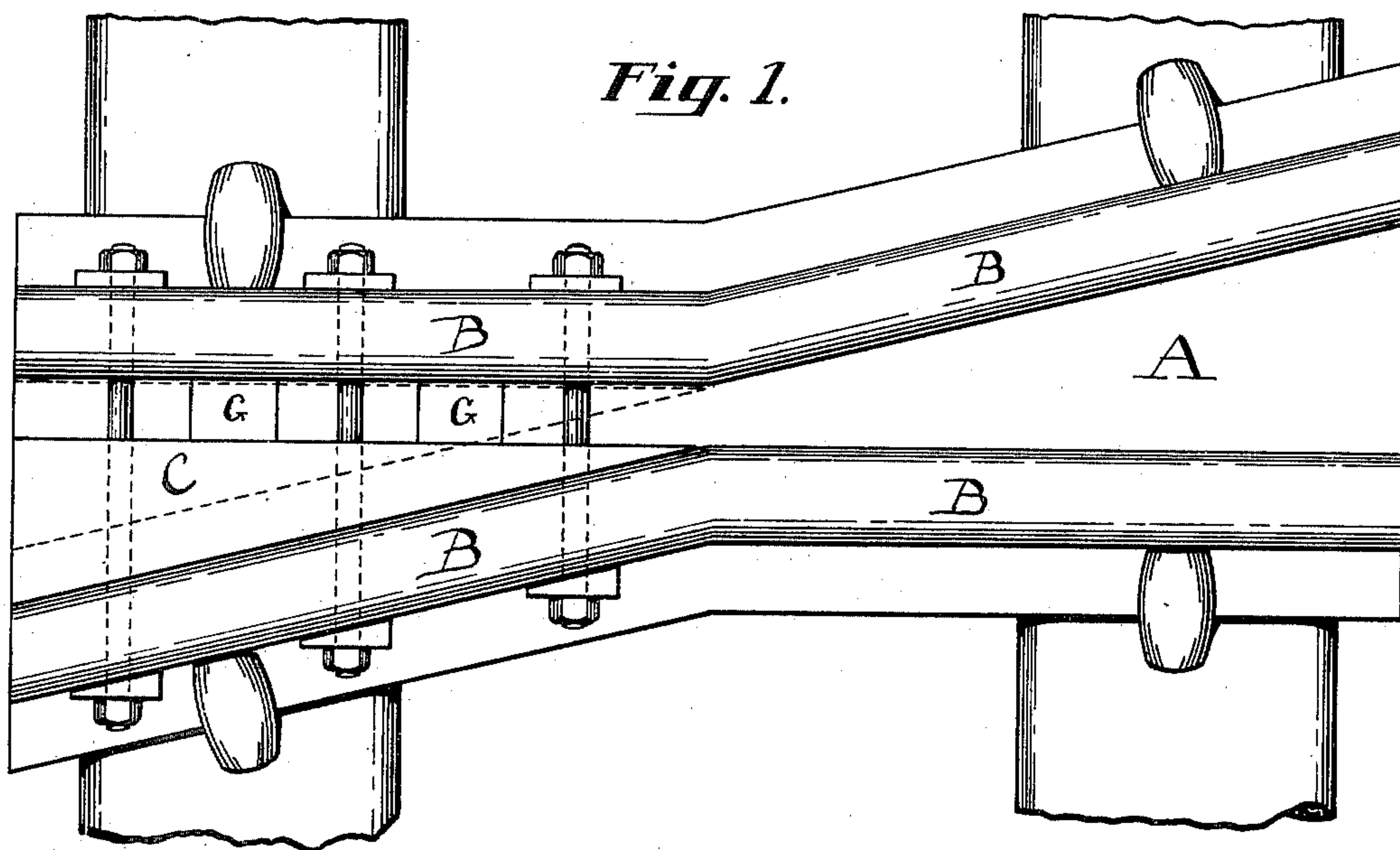
No. 619,280.

Patented Feb. 14, 1899.

G. F. COME.
RAILROAD SWITCH.

(Application filed Mar. 19, 1898.)

(No Model.)



WITNESSES:

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INVENTOR

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UNITED STATES PATENT OFFICE.

GEORGE FRANCIS COME, OF CHATHAM CENTRE, NEW YORK.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 619,280, dated February 14, 1899.

Application filed March 19, 1898. Serial No. 674,446. (No model.)

To all whom it may concern:

Be it known that I, GEORGE FRANCIS COME, a citizen of the United States, residing at Chatham Centre, in the county of Columbia and State of New York, have invented certain new and useful Improvements in Railroad-Switches, of which the following is a full, clear, and exact specification.

My invention relates to railway-switches; and its object is to construct a simple and economical switch of great strength which will at all times be in condition for operation and will be highly efficient in action.

The invention will be more particularly described hereinafter with reference to the accompanying drawings, in which—

Figure 1 represents a plan view of a frog embodying my invention. Fig. 2 represents a cross-section of the same through the web of the rails, and Fig. 3 a detail sectional view.

Similar letters of reference indicate similar parts in the different figures.

Referring to the drawings, A represents a frog having the wing-rails B B, which may be of any degree of curvature.

C represents the movable switch-point, which in this instance is formed of a solid piece of material and has its sides shaped to conform with the inner sides of the opposite portions of the rails B B. The switch-point C is provided with openings D' D', through which are passed the cross-bars D D. These bars may be attached to the rails in any suitable place and manner; but the construction which I have found to give greatest strength is to locate the openings D' in the web of the rail and provide cheek pieces or plates E E, through which the bars pass. The ends of the bars should then be threaded and carry nuts F, which may be screwed upon the bars, and thus brace the rails of the frog.

The operation of the device above described is substantially the same as that of other switches now in use—that is, the switch-point is connected by the usual thrust-rod to an operating-lever which is moved by hand. However, any suitable well-known means for moving the switch-point may be utilized and the device may be connected with any automatic switch-throwing apparatus. The switch-point being loosely mounted upon the bars will move bodily from side to side to adjoin

either rail, according as the switch is to be moved. In order, however, that the entire weight of the load carried by the switch-point while cars are passing over the same will not be thrown upon the cross-bars and thus bend them out of shape and interfere with the free operation of the switch-point, I provide suitable supports G G for the switch-point, the supports in this instance comprising plates extending from rail to rail in the frog. If preferred, the base-plate of the frog may answer this purpose; but this is objectionable because of the large frictional surface thus presented. Likewise for the purpose of further steadying the movement of the switch-point the under side of its rear end may be cut away to form a shoulder H, which moves upon the cross-plate G.

It is obvious that the wing-rails may be of any desired degree of curvature.

By reason of the solidity and compactness of the switch-point thus described the necessity for the usual guard-rails which exists in switches in use at the present time will be dispensed with, and notwithstanding the solidity of the switch the frictional surfaces have been reduced to a minimum. Furthermore, it will be apparent that if injured it can be readily replaced without the necessity of substituting new rails, as would be the case were the points integral with each of the joint-rails. The switch-point cannot be displaced by any accidental cause—such as a blow and jolting and jarring of the wheels rolling over the switch—and consequent damage to rolling-stock and discomfort to passengers will be done away with.

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

1. In a railway-switch, the combination with the wing-rails, of a plurality of substantially parallel cross-bars connecting the same, and a switch-point having transverse openings corresponding with and surrounding the said bars respectively, said switch-point being adapted to move bodily from side to side on said bars, substantially as described.

2. In a railway-switch, the combination with the wing-rails, of a plurality of substantially parallel cross-bars connecting the same, and a substantially triangular switch-point

having transverse openings through which
said bars are adapted to pass, said switch-
point being loosely mounted on said cross-
bars and adapted to move bodily from side to
5 side thereon, substantially as described.

3. In a railway-switch, the combination
with the wing-rails, of a plurality of substan-
tially parallel cross-bars connecting the same,
a substantially triangular switch-point hav-
10 ing openings corresponding with said bars
and adapted to loosely surround the same,

said switch - point being adapted to move
bodily from side to side on said bars and one
or more supporting - plates beneath said
switch-point, substantially as described. 15

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

GEORGE FRANCIS COME.

Witnesses:

CLARENCE VAN ALSTYNE,
JOHN J. WILBOR.