

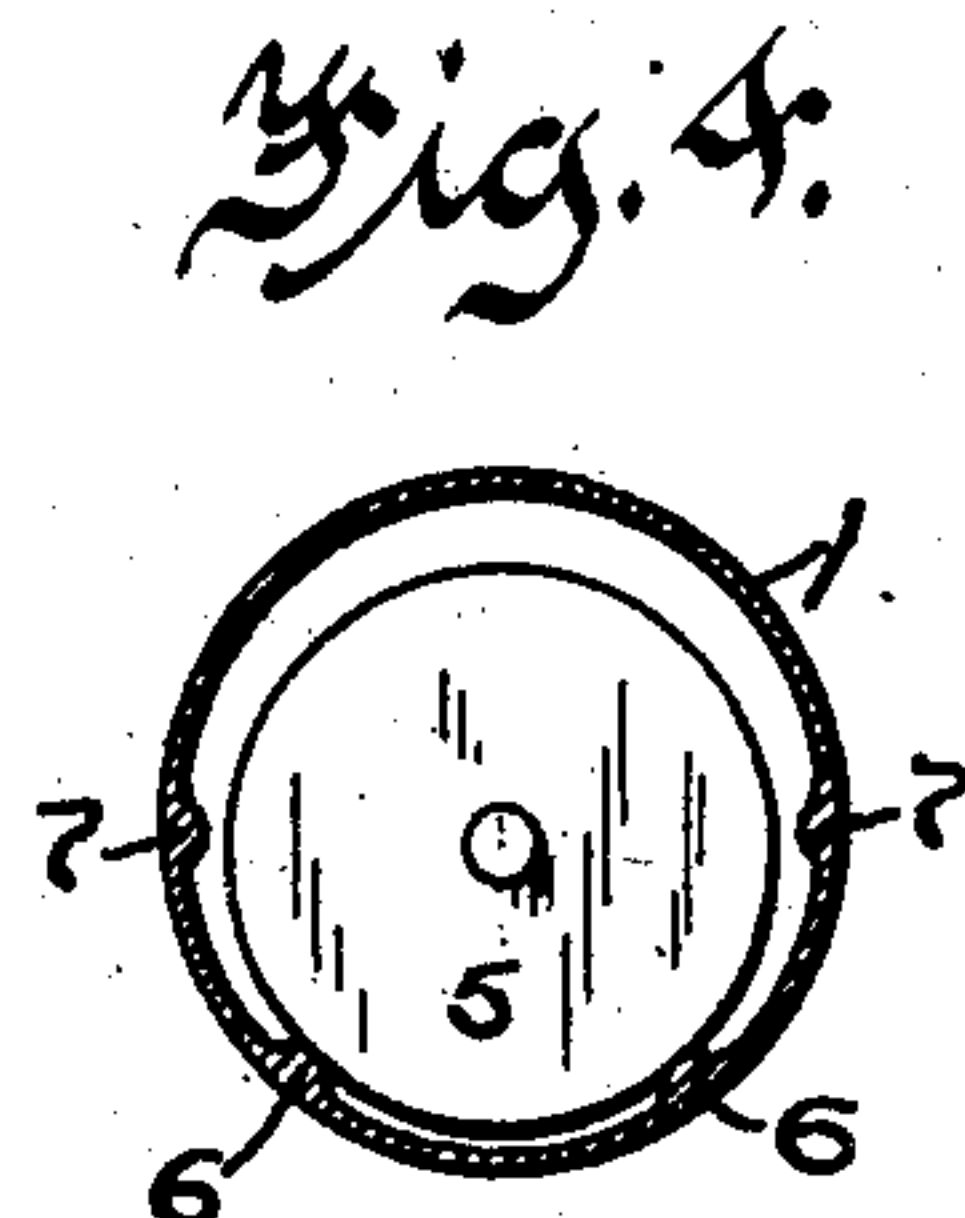
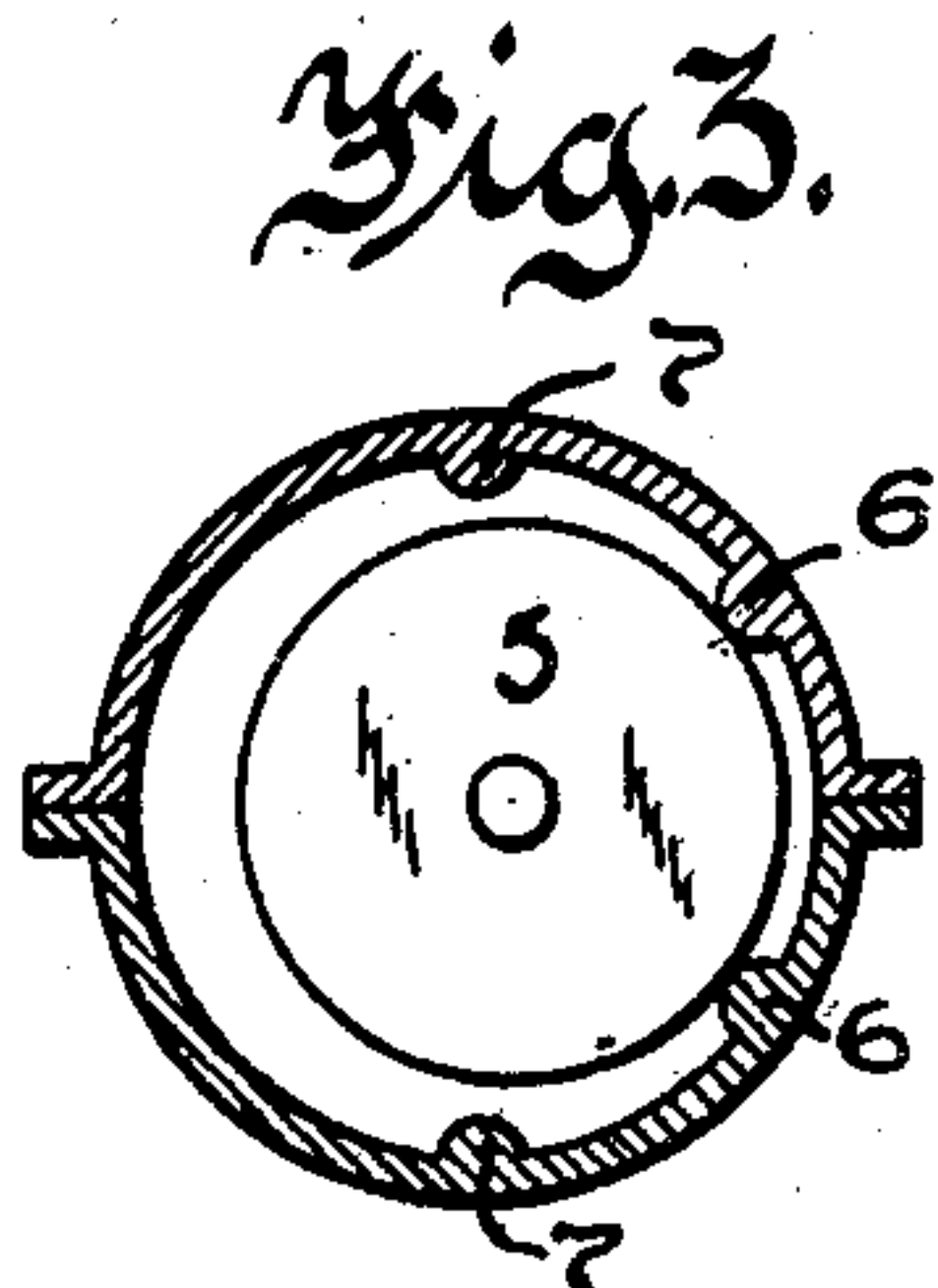
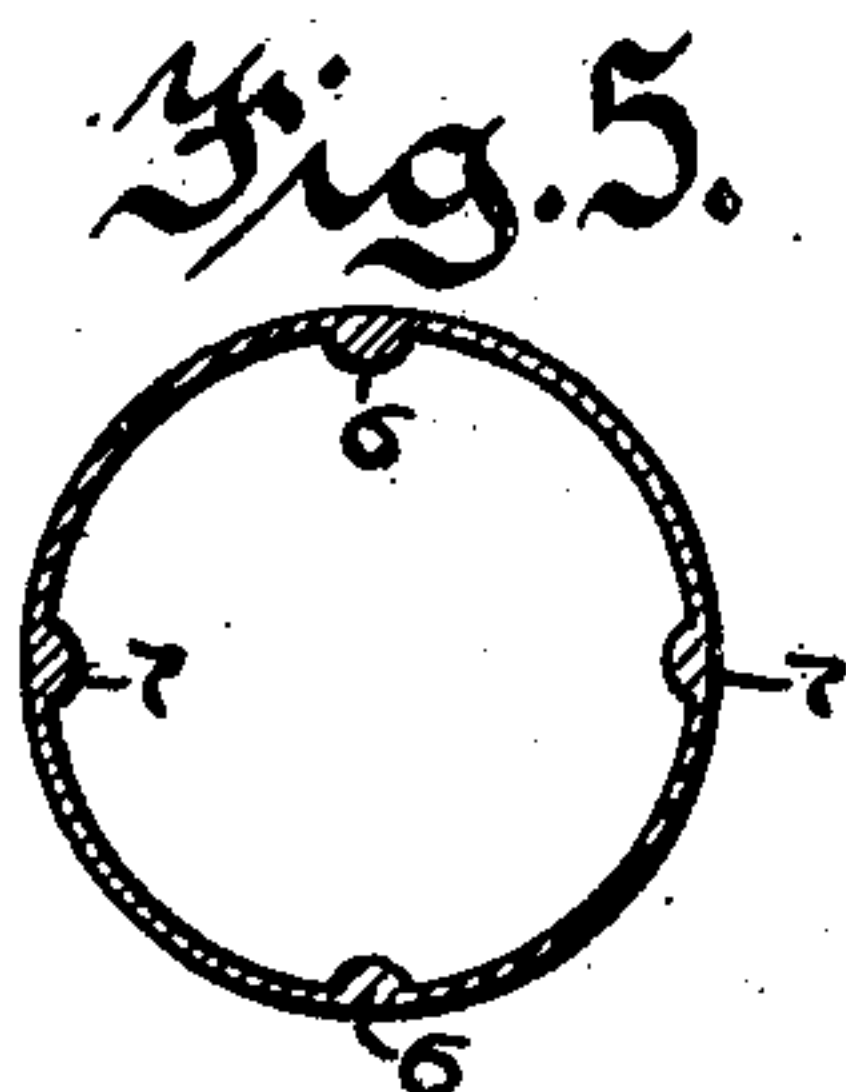
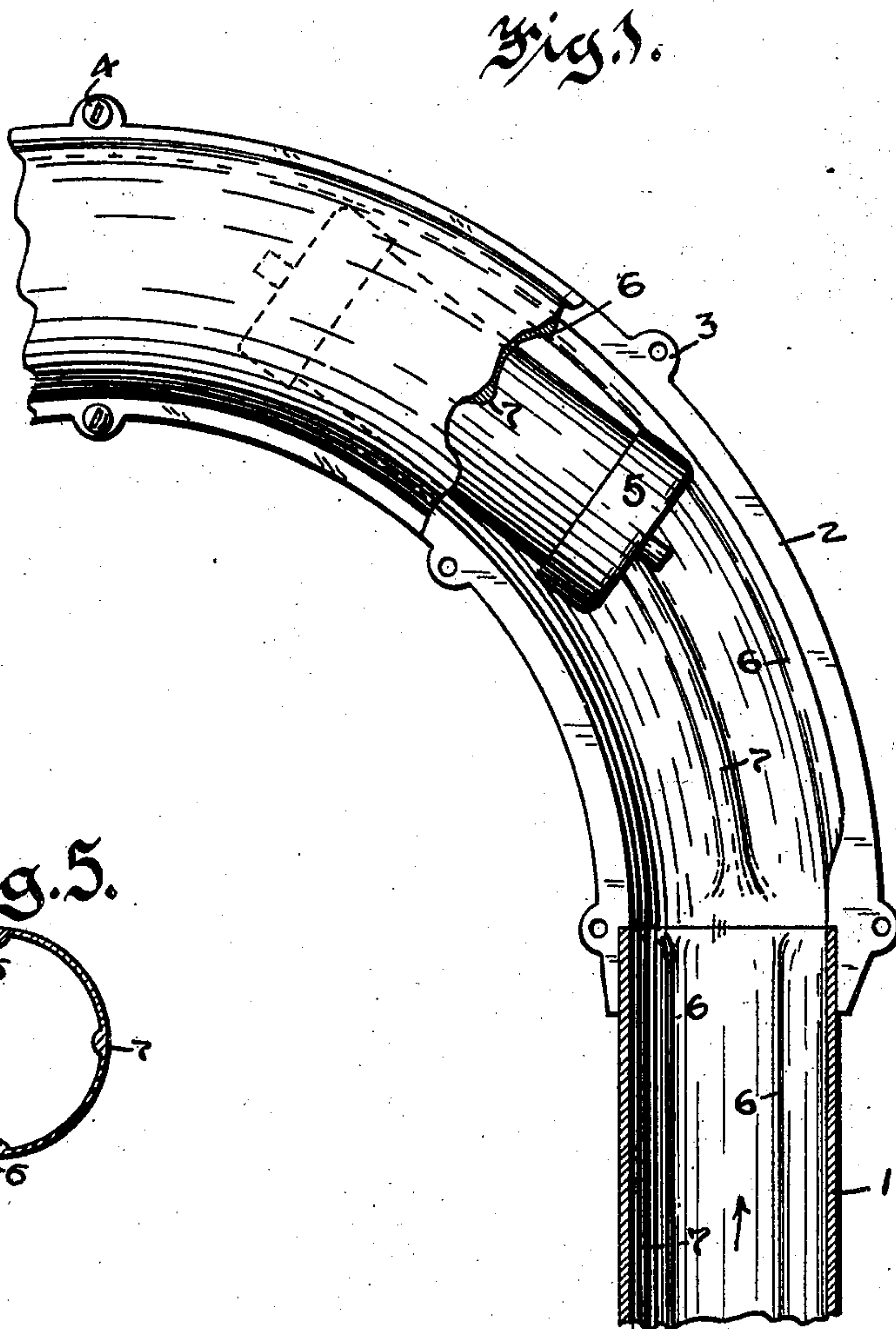
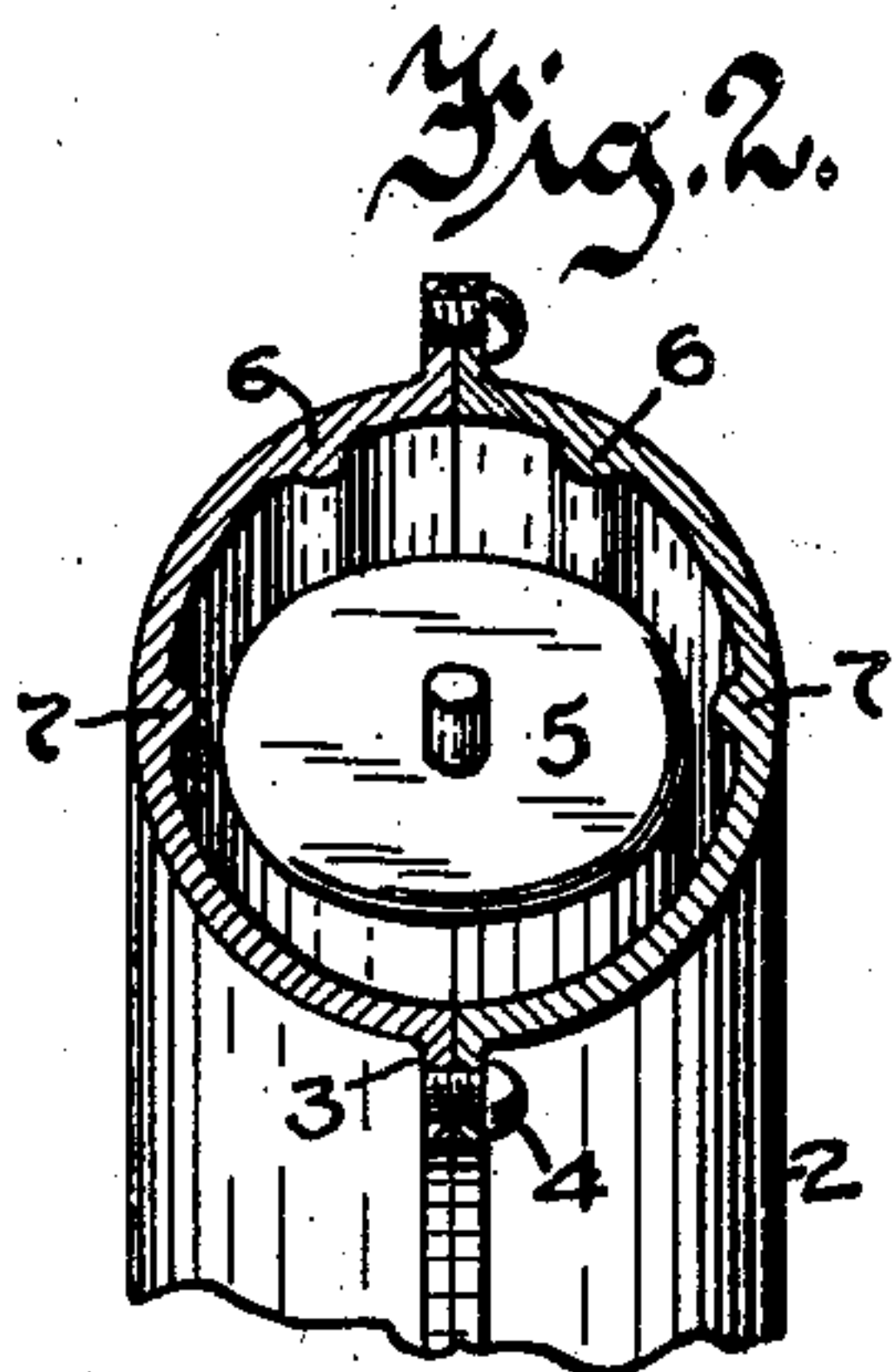
No. 690,675.

Patented Jan. 7, 1902.

F. R. TAISEY.
DESPATCH TUBE.

(Application filed May 9, 1901.)

(No Model.)



WITNESSES:

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INVENTOR.

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UNITED STATES PATENT OFFICE.

FRED R. TAISEY, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE TAISEY PNEUMATIC SERVICE COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION OF INDIANA.

DESPATCH-TUBE.

SPECIFICATION forming part of Letters Patent No. 690,675, dated January 7, 1902.

Application filed May 9, 1901. Serial No. 59,520. (No model.)

To all whom it may concern:

Be it known that I, FRED R. TAISEY, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful
5 Despatch-Tube; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

10 This invention relates to the construction of despatch-tubes to diminish the friction of independent carrier-boxes against the wall of the tube, and especially in the curves of the tube. This object is attained by providing
15 two or more internal longitudinally-extending antifriction-ribs in the portion of the tube with which an independent carrier-box will come in contact during its passage. In a horizontal straight tube such ribs are in the
20 lower portion thereof, as the box rides upon them by gravity. At a bend the ribs are on the outside of the curve, as the centrifugal force of the box throws it against the outside wall of the curved tube.

25 The nature of this invention will be understood from the accompanying drawings and the following description and claims.

In the drawings, Figure 1 is a plan of a straight and a curved portion of pneumatic
30 tubing with parts broken away and parts in section. Fig. 2 is a section in perspective on the line A A of Fig. 1. Fig. 3 is a section on the line B B of Fig. 1. Fig. 4 is a section on the line C C of Fig. 1. Fig. 5 is a cross-section of a
35 straight tube when vertical.

In detail, 1 represents a straight portion of a pneumatic tube, and 2 a curved portion. The curved portion is formed of two longitudinal halves having ears 3 secured together
40 by the screws 4.

5 is a free carrier-box with cushioned ends, as distinguished from a box running in or on guides.

In the straight portion of the tube I provide
45 two longitudinally-extending antifriction-ribs 6, which are placed equidistant on opposite sides of the vertical center of the tube when horizontal and upon which the box rides in its passage without contacting with the
50 wall of the tube. I also provide another pair of ribs 7, diametrically and horizontally op-

posite each other, against which the box will now and then be thrown in its rapid movement and which in such cases keep the box from coming into contact with the wall of the
55 tube. I employ the same principle of antifriction-ribs in the curved portions of the tube, but they are located differently. As shown in Figs. 2 and 3, the ribs 6, which normally support the box, are on the outside of
60 the curve, and the centrifugal force of the box drives it against such outside ribs. The ribs 7 are above and below the center of the tube at the bend when it lies horizontally and have the same function as the ribs 7 in the
65 straight portion. The difference in the relative locations of the ribs in a straight and a curved portion appears in Figs. 3 and 4. The position of the ribs in the curve of the tube is always the same regardless of the position
70 of the curve, whether vertical or horizontal, as the box in its passage is always thrown against the outside of the curve. When the straight section, however, is placed vertical instead of horizontal, the antifriction-ribs
75 should be located preferably equidistant about the tube, as appears in Fig. 5, instead of being located in only one-half of the tube. When arranged as shown in Fig. 5, the box in its passage will not engage the wall of the
80 tube, but at all times the ribs will prevent such contact. The advantage of this arrangement is that no guide-rods, guide-ribs, or guide-grooves are required. The diameter of the curve is greater than that of the straight
85 portion of the tube to allow the box to turn in it.

By "independent carrier-box" is meant one not guided by ribs or running upon tracks and which is free from wheels or other guid-
90 ing means.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A curved section of a despatch-tube having a pair of internal longitudinally-extending
95 antifriction-ribs placed on the outer curve of said section for preventing a free carrier-box engaging the wall of the section.

2. A despatch-tube consisting of a straight portion and a curved portion combined, and
100 internal longitudinally-extending antifriction-ribs placed in said portion, those in the

straight portion being in the lower half thereof and those in the curved portion being in the outer half thereof.

3. The combination of a despatch-tube provided with internal longitudinally-extending ribs, and a wheelless carrier - box movable therethrough and directly engaging said ribs.

4. The combination of an independent carrier-box, and a despatch-tube provided with a pair of internal longitudinally-extending ribs placed on the side of the tube against which such carrier-box would move for preventing the box engaging the wall of the tube.

5. The combination of a despatch-tube provided with three or more internal longitudinally-extending ribs, and a wheelless carrier-

box movable therethrough and directly engaging said ribs.

6. A combination of a despatch-tube provided with a pair of internal longitudinally-extending ribs placed diametrically opposite each other and another pair of ribs placed between the first pair of ribs, and a wheelless carrier - box movable therethrough and directly engaging said ribs.

In witness whereof I have hereunto affixed my signature in the presence of the witnesses herein named.

FRED R. TAISEY.

Witnesses:

V. H. LOCKWOOD,

FLORENCE E. BRYANT.