

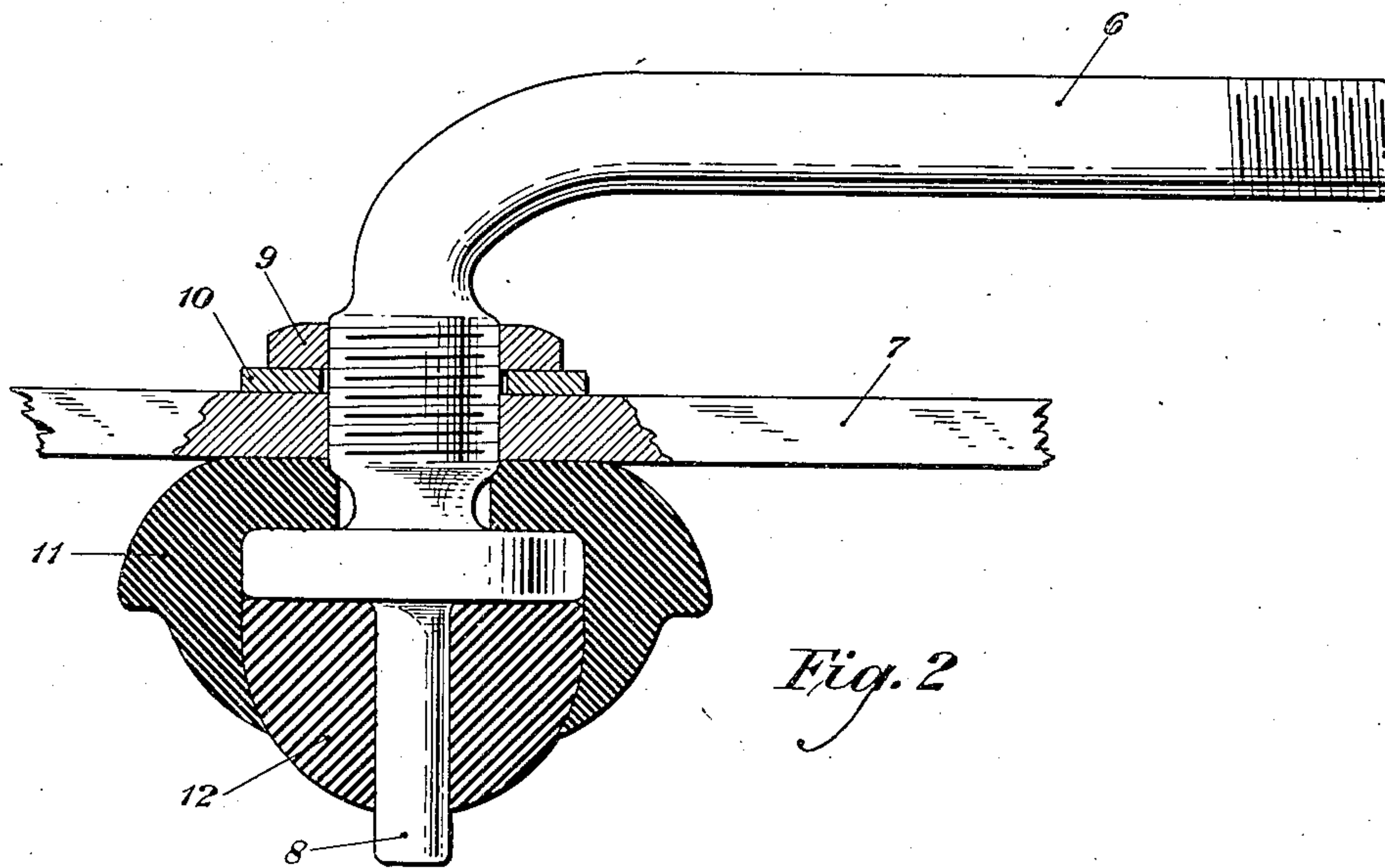
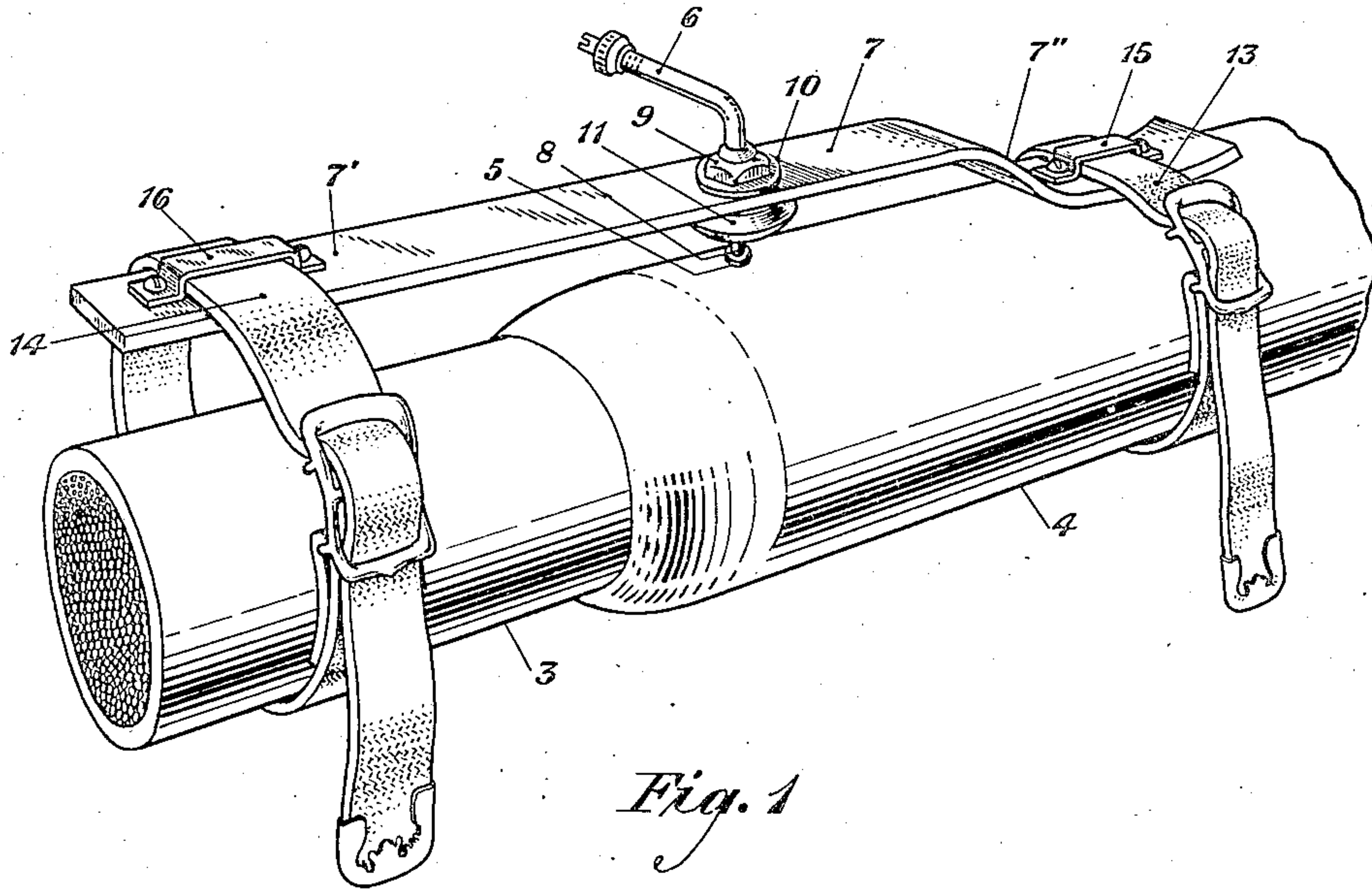
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DEVICE FOR INTRODUCING GAS INTO CABLES

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DEVICE FOR INTRODUCING GAS INTO CABLES

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This invention relates to pressure testing of cables, and, more particularly, to means for facilitating the introduction of gas into cables for pressure tests.

5 In general, gas pressure tests of cables are for the purpose of detecting the presence of defects such as holes in the cable sheath or in the wiped joints and soldered seams of the sleeves by means of which the sheaths of
10 adjacent cable sections are joined together. One way of applying such tests is to allow gas to expand into a cable until an appreciable pressure, say 15 pounds, is built up inside the sheath and then to make an inspection of the sleeves and other exposed parts
15 of the cable with soap solution. In certain cases, for instance, when testing individual sleeves, it is highly desirable to have available reliable means for quickly connecting the
20 gas supply to the sleeve to be tested.

The object of the invention is the provision of means suitable for the convenient introduction of gas as indicated above.

25 In general, the applicant's device comprises a rigid bar formed in a certain manner and carrying in its middle portion a valve which passes through the bar and terminates in a tube adapted to fit into a hole in the cable sleeve, a bumper arrangement fastened
30 to the lower face of the bar and surrounding the tube over the greater part of its length, and means for rendering the gas inlet substantially air-tight with the minimum of difficulty.

35 The invention will be clearly understood when the following detailed description is read with reference to the accompanying drawing. Figure 1 of the drawing shows, in perspective, the applicant's device applied
40 to a section of cable covered in part by a sleeve; Fig. 2 shows, in greater detail, certain elements of the device more generally disclosed in Fig. 1. Like numerals of reference in the two figures of the drawing designate
45 corresponding parts.

50 With reference to the drawing, and with particular reference, first, to Fig. 1 thereof, a section of cable 3, is covered in part by a sleeve 4. For the purpose of pressure testing, it is desired to introduce gas into the ca-

ble through a hole 5 near one end of the sleeve 4.

A tire valve 6 is mounted at the middle of and passes through a rigid bar 7. The valve is fitted with a small tube 8 which projects
55 well beyond the lower face of the bar 7. The valve member is threaded, as indicated clearly in Fig. 2, and is fixed in place with a nut 9 and a washer 10. Fastened to the lower
60 face of the bar 7, and surrounding the lower portion of the valve and the small tube 8, is a rubber bumper device consisting of a crutch bumper 11 and a round bumper 12. The
65 round bumper extends to a point slightly above the lower end of the tube 8.

When gas is to be introduced into the cable, the device is centered with the projecting tube 8 in the hole 5 of the cable sleeve (Fig. 1). The end 7' of the bar 7 is straight, and is placed over the cable 3; the opposite end
70 7'' of the bar is off-set to the depth of the bumper and is placed over the sleeve 4. Since the off-set is equal to the depth of the bumper, this end 7'' fits against the sleeve 4. Straps 13 and 14 pass through metal loops
75 15 and 16 at the off-set end 7'' and the straight end 7', respectively, of the bar 7. With the lower end of the tube 8 inserted in the hole 5 and the offset end 7'' of the bar fitted
80 against the sleeve 4, the strap 13 is tightened to fix the off-set end of the bar firmly against the sleeve. The strap 14 at the straight end 7' of the bar is then tightened about the cable 3. Due to the form of the bar and the posi-
85 tion of the valve arrangement, there is produced a lever action, and, accordingly, relatively little pressure need be applied to the straight end of the bar by means of the strap 14 in order to render the gas inlet substan-
90 tially air-tight.

It will, of course, be understood that when the applicant's device is fixed in position as described above, a gas tank is connected to the tire valve by means of a suitable hose, and gas is introduced into the cable as desired.
95 When the test is concluded, the applicant's device is removed and the hole 5 in the cable sleeve 4 is closed.

The tire valve 6 is preferably of the bent type rather than the straight type; with this
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form of valve, it is not necessary that there be a large clearance between adjacent cables when the applicant's device is applied to one of the cables for the introduction of gas.

5 What is claimed is:

A device designed for the introduction of gas into a cable, comprising a rigid bar, a valve member passing through the middle portion of said bar and terminating in a tube
10 adapted to fit into a hole in the cable sleeve, a bumper member fastened to the lower face of said bar and surrounding and extending nearly to the lower end of said tube, said bar being off-set at one end to the depth of said
15 bumper member, and two straps fastened to said bar, one at the off-set end to hold said end firmly against the cable sleeve and one at the opposite end to force said end toward the cable sheath.

20 In testimony whereof, I have signed my name to this specification this 30th day of November, 1928.

WILLIAM J. GRUENE.

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