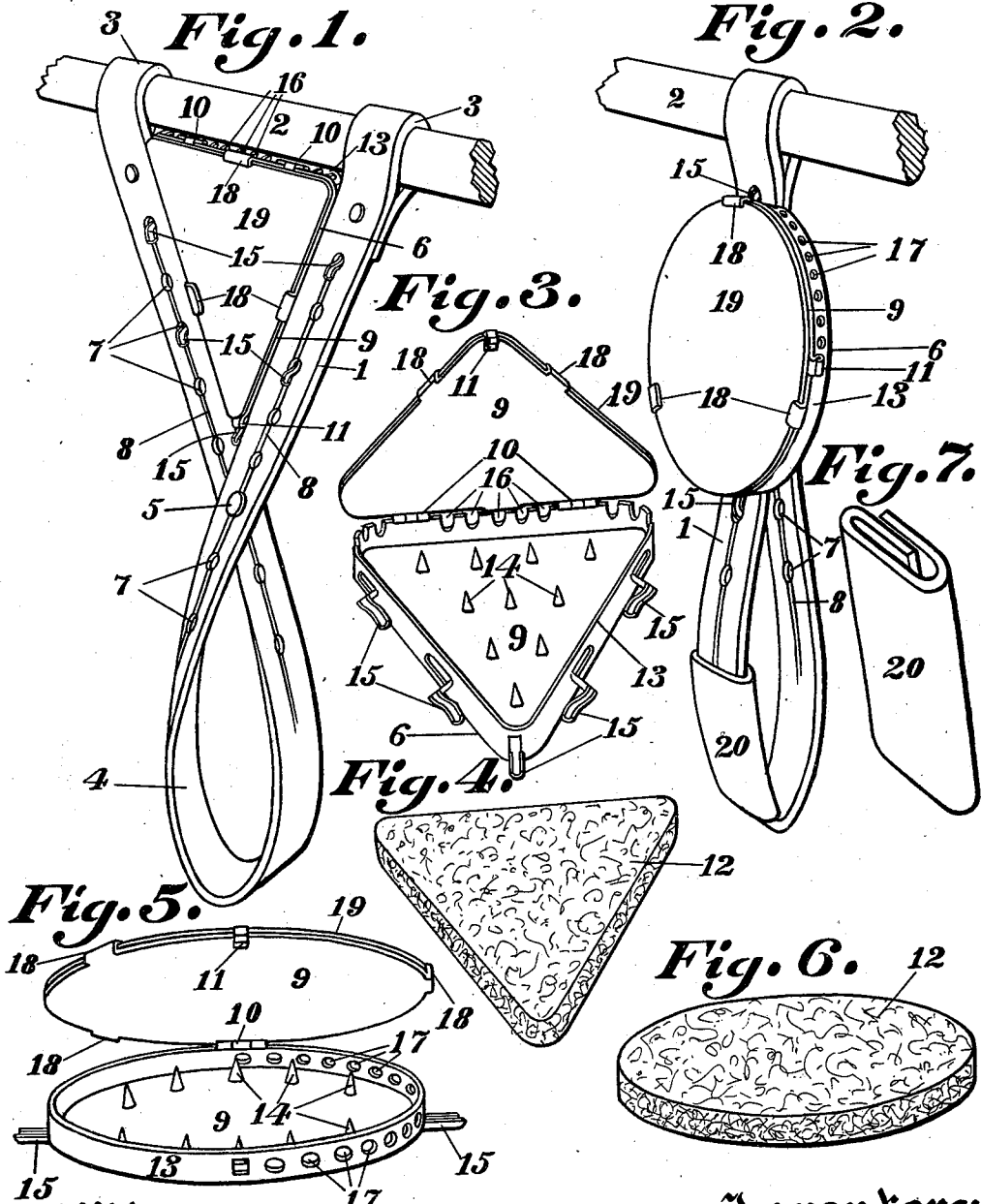


1,010,133.

Patented Nov. 28, 1911.

3 SHEETS—SHEET 1.



Witnesses:
William H. Bruesch.
Harry H. Reiss.

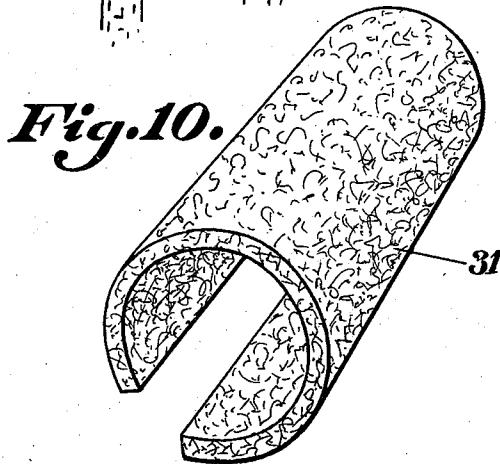
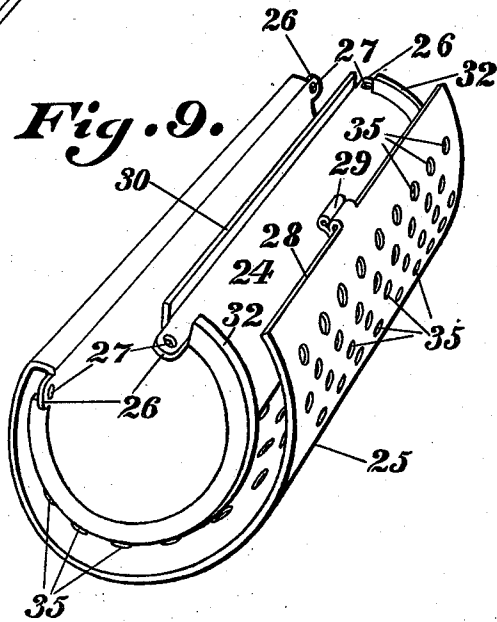
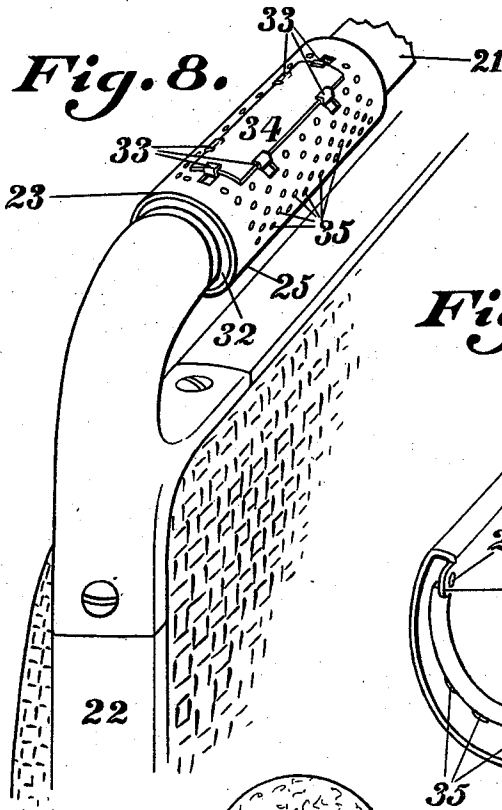
Inventor:
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1,010,133.

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STREET CAR STRAP.
APPLICATION FILED DEC. 19, 1910.

Patented Nov. 28, 1911.

3 SHEETS—SHEET 2.



Witnesses:
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STREET CAR STRAP.

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3 SHEETS—SHEET 3.

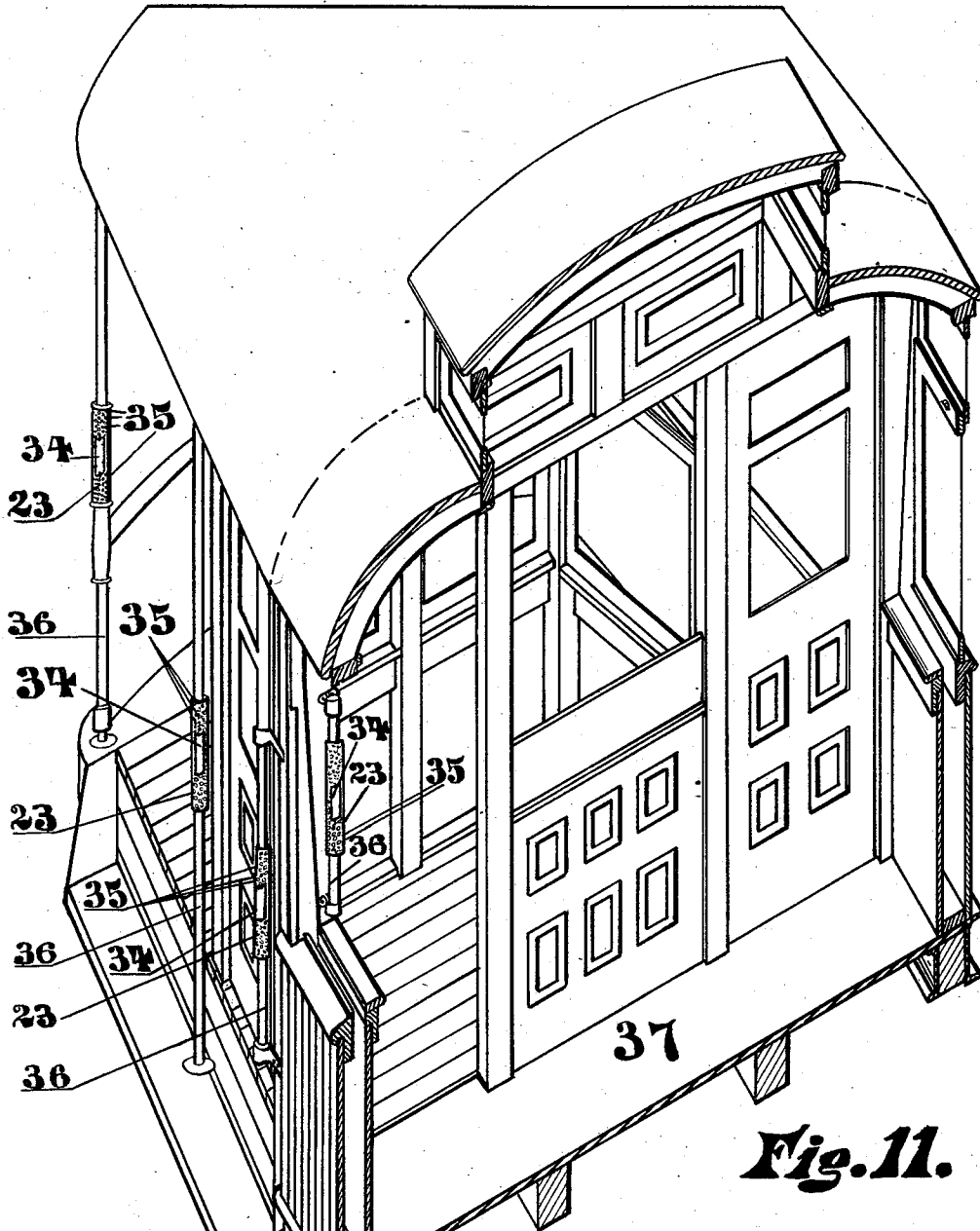


Fig. 11.

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UNITED STATES PATENT OFFICE.

GEORGE W. FLEMING, OF ST. LOUIS, MISSOURI.

STREET-CAR STRAP.

1,010,133.

Specification of Letters Patent. Patented Nov. 28, 1911.

Application filed December 19, 1910. Serial No. 598,126.

To all whom it may concern:

Be it known that I, GEORGE W. FLEMING, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have
5 invented certain new and useful Improvements in Street-Car Straps, of which the following is a specification.

The present hand-strap equipment of public conveyances is very unsanitary, for
10 the reasons that the hand-straps are generally dirty and are seldom replaced until worn beyond further use. This condition and the lack of proper ventilation in public conveyances greatly foster contagion and are men-
15 aces to public health and safety. These unsanitary conditions are obviated by the present invention, which has for its primary object to provide a hand-strap that is particularly adapted to support a disinfectant device containing an antiseptic fluid or a
20 germicide, which device is adapted to allow the antiseptic liquid or germicide to discharge to the grip surface or surfaces of the hand-strap. The antiseptic fluid or germi-
25 cide not only disinfects the grip surface or surfaces of the hand-strap, but commingles with the atmosphere in the conveyance, so as to prevent the spreading of zymotic and other diseases.

Another object of this invention resides in
30 the provision of a disinfectant device that is adapted to contain an antiseptic fluid or a germicide and, also, to be attached to a handle or hand-rail on the back of a conveyance seat, the antiseptic fluid or germi-
35 cide being allowed to discharge to the exterior or grip surface of the device, so as to render same sanitary at all times.

Further, this invention consists in the pro-
40 vision of a disinfectant device bearing an advertisement, which may be detachably or permanently attached thereto.

In the accompanying drawings forming part of this specification, in which like num-
45 bers of reference denote like parts wherever they occur, Figure 1 is a perspective view of my improved hand-strap having a disinfectant device attached thereto; Fig. 2 is a perspective view of an alternate form of
50 same; Fig. 3 is a perspective view of the disinfectant device used in connection with the strap depicted in Fig. 1, said device being shown open; Fig. 4 is a perspective view of the filling therefor; Fig. 5 is a perspective
55 view of the disinfectant device used in connection with the strap depicted in Fig. 2,

said device being shown open; Fig. 6 is a perspective view of the filling therefor; Fig. 7 is a perspective view of a covering for the grip surface of the hand-strap; Fig. 8 is a perspective view of a disinfectant device
60 attached to the hand-rail on the back of a seat; Figs. 9 and 10 are detailed views of the disinfectant device depicted in Fig. 8; and Fig. 11 is a fragmentary perspective
65 view of an end of a street-car having disinfectant devices attached to the grasp rails of same.

The hand-strap 1 is made of leather or any other suitable material and is attached
70 to the strap-rod or rail 2 either by securing both ends 3 of same to said rod, as depicted in Fig. 1, or by fastening same to said rod in the usual manner of fastening the hand-
75 strap now in general use, as illustrated in Fig. 2. When both ends of the strap 1 are attached to the strap-rod 2, the parts of the strap that are dependent from said rod are
80 crossed to form a loop 4 and are fastened together by means of a swivel 5 or the like. The ends 3 of strap 1 are spaced on the strap-rod 2, so that the parts of said strap that extend from said rod to the swivel
85 5 and the part of said rod that extends between the ends 3 of said strap unite to form a triangular inclosure which I fill or partly fill with a disinfectant device 6 or a plu-
90 rality of such devices. The strap 1 is provided with a plurality of perforations 7, through some of which an antiseptic fluid is allowed to discharge from the disinfectant device in the manner hereinafter de-
95 scribed, and, also, with a groove or grooves 8, said groove or grooves being arranged to conduct the antiseptic fluid from said perforations to the grip surface or surfaces of
100 said strap. The groove or grooves 8 may be formed in either one or both sides of the strap 1.

The disinfectant device 6 consists of two
105 sheets or disks 9 that are formed of metal, celluloid, or any other suitable material. The sheets or disks 9 are formed with a triangular, circular, or any other desired configuration, and are hinged at 10 or other-
110 wise secured together at the top, bottom, or side, being held together in a closed position by means of a clasp 11 or the like in order to retain a pad or filler 12 therebetween. The pad or filler 12 is held in place by a flange 13 borne by one of the sheets or disks 9 and, also, by a plurality of projec-

tions 14, which may extend from either one or both of said sheets or disks into said pad or filler. The device 6 is attached to the strap 1 by means of a trough-like projection 15 or a plurality of such projections borne by flange 13. The trough-like projections 15 extend through some of the perforations 7 in strap 1, as depicted in Figs. 1 and 2, and conduct the antiseptic fluid contained in the pad or filler 12 to the groove or grooves 8, through which same flows to the grip surface or surfaces of said strap, thereby disinfecting said grip surface or surfaces and rendering same sanitary. Notches 16 or perforations 17 are preferably formed in the upper part of flange 13 in order to permit the antiseptic fluid to act as a germicide to purify the air in the conveyance.

The sheet or disk 9 that is visible to the passengers in the aisle of the conveyance is provided with lips 18 or other suitable means for holding a card 19 bearing advertisement, or, if desired, the advertisement can be printed upon said sheet or disk, or otherwise attached thereto.

The grip surface or surfaces of the hand-strap 1 may be covered with a protector or protectors 20, as depicted in Fig. 2. The sheath 20 is formed of cloth or any other suitable material that will absorb the antiseptic fluid, which flows through a groove 8 to the grip surface of the strap, and, if desired, said sheath can bear an advertisement. Said sheath is wrapped around a grip surface of strap 1, and has its ends glued or otherwise secured together.

In some cars and other conveyances hand-rails or handles 21 are secured to the backs 22 of the seats, so that the standing passengers and others can hold to same. In Figs. 8 and 9 a disinfectant device 23 is illustrated that is particularly adapted to be attached to a hand-rail or handle 21. The device 23 is formed of metal, celluloid, or any other suitable material, and comprises an inner shell 24 and an outer shell 25. The inner shell 24 encircles or partly encircles the hand-rail or handle 21 and bears projections 26 having perforations 27 to allow screws, nails, or the like (not shown in the drawings) to pass therethrough for the purpose of securing the device 23 to said hand-rail or handle. The outer shell 25 encircles the inner shell 24, and is formed integrally with or otherwise connected to an edge of said inner shell. The free edge 28 of the outer shell 25 bears a clasp 29 or other suitable means for attaching same to the edge 30 of the inner shell 24. A pad or filler 31 containing an antiseptic fluid is retained between shells 24 and 25, when the clasp 29 is hooked over edge 30, and is held in place by flanges 32 borne by the ends of shell 24. The outer shell 25 is provided with lips 33 or other suitable means for holding a card

34 bearing advertisement and, also, with perforations 35 through which the antiseptic fluid is allowed to escape from the pad or filler 31. By this arrangement the antiseptic fluid disinfects the shell 25 or grip surface of the device 23 and acts as a germicide to purify the air in the conveyance.

In Fig. 11, each of the grasp rails 36 of the street-car 37 is provided with a disinfectant device 23 bearing an advertising card 34, said device being preferably arranged to cover the part of said rail that is usually grasped by the passengers getting on or off the car.

It will be obvious that many minor changes in the form and arrangement of the several parts may be made without departing from the nature and spirit of this invention.

I claim:

1. In combination with a perforated handstrap, a fluid container, and trough-like projections carried by the container extending through said perforations for supporting the container from the strap and for also conducting the fluid to the surface of the strap.

2. In combination with a handstrap having a longitudinal channel, a fluid container adjacent the handstrap, and a channeled member carried by the container and communicating with said channel at one end and with the interior of the container at its opposite end.

3. In combination with a handstrap having a longitudinal channel, a fluid container adjacent the handstrap, and a channeled member carried by the container and communicating with said channel at one end and with the interior of the container at its opposite end, and an absorbent covering for the grip-section of the strap located adjacent said channel of the hand strap.

4. A handstrap having two spaced attaching ends, a fluid container in the space between said ends for holding same apart, and means for conducting the fluid from said container to the grip portion of the hand-strap.

5. A handstrap folded to have two sides which cross each other and are secured together at their point of crossing to form a hand loop, the ends of the strap being spaced apart, a fluid container carried by the strap and arranged in the space between the strap ends, and means to conduct the fluid from the container to the hand loop.

6. In combination with a handstrap, a fluid container having combined means for attaching the container to the handstrap and for conducting the fluid from the container to the handstrap.

7. In combination with the hand grip of a public conveyance or the like, a fluid container having perforations thereon, means

for attaching the container to the grip, and a mass of absorbent material in the container.

8. In combination with a handstrap having a fluid receiving channel, a fluid container attached to the handstrap and having means to conduct the fluid from the container to said fluid receiving channel.

9. In combination with a handstrap having a fluid receiving channel, a fluid container attached to the handstrap and having means to conduct the fluid from the container to said fluid receiving channel, and an absorbent hand grip located adjacent the channel so as to receive the liquid therein.

10. A handstrap having two spaced attaching ends, a hollow member in the space

between said ends for holding same apart and for also containing a fluid, said member being formed to permit egress of the fumes of the fluid therefrom.

11. In combination with a handstrap having a channel and a perforation, a fluid container, a trough-like projection carried by the container extending through said perforation and having its free end extending in the channel to conduct fluid from the container to the channel.

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

GEORGE W. FLEMING.

Witnesses:

GLADYS WALTON,

GEORGE G. ANDERSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."