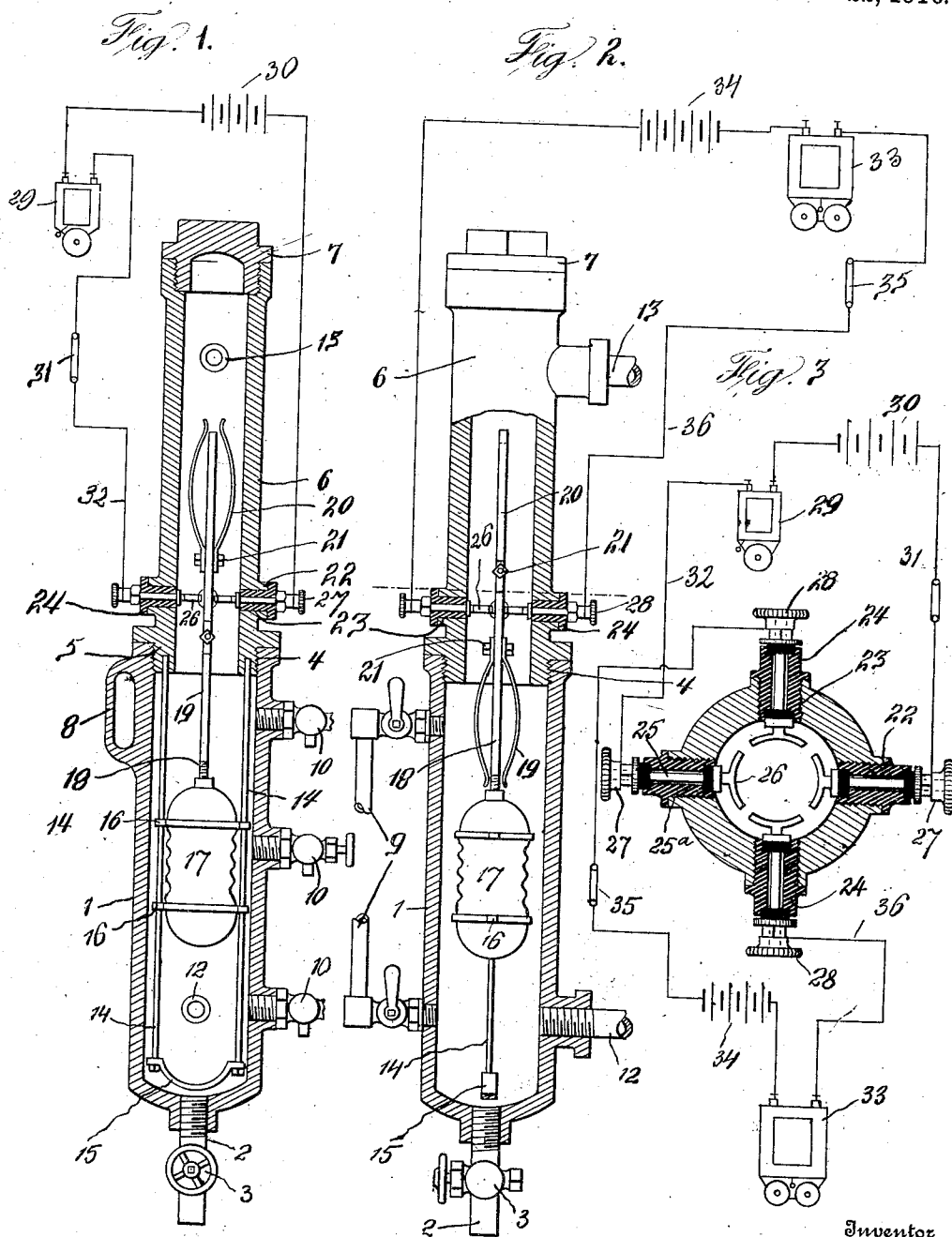


J. TOROK.
WATER GAGE.
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952,999.

Patented Mar. 22, 1910.



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UNITED STATES PATENT OFFICE.

JULIUS TOROK, OF RENOVO, PENNSYLVANIA.

WATER-GAGE.

952,999.

Specification of Letters Patent. Patented Mar. 22, 1910.

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To all whom it may concern:

Be it known that I, JULIUS TOROK, a citizen of the United States of America, residing at Renovo, in the county of Clinton and State of Pennsylvania, have invented certain new and useful Improvements in Water-Gages, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention is an improvement upon my Patent No. 928,082, granted July 13, 1909.

The present invention aims to provide a water gage with two separate and distinct signals for notifying an engineer or sounding an alarm when water within a boiler has reached predetermined levels.

The invention further aims to accomplish this object by a simple, durable and inexpensive construction that is similar to the water gage described in my patent, and in order that those not conversant with the same can fully understand the present invention, reference will be had to a drawing forming a part of this specification, wherein there is illustrated the construction disclosed in my patent and the present improvement as applied thereto.

In the drawing:—Figure 1 is a vertical cross sectional view of a gage constructed in accordance with my invention, Fig. 2 is a vertical transverse sectional view of the same, and Fig. 3 is a horizontal sectional view of the gage.

In the drawing the reference numeral 1 denotes a cylindrical casing having the lower end thereof closed and provided with a drain pipe 2 having a suitable globe valve adapted to close the pipe. The upper end of the casing 1 is interiorly screw threaded, as at 4 and is adapted to receive the exteriorly threaded end 5 of a cylindrical housing 6 having the upper end thereof provided with a detachable cap 7.

8 denotes a handle carried by one side of the casing 1 at the upper end thereof.

9 denotes a sight glass carried by one side of said casing and communicating therewith.

10 denotes pet-cocks carried by the outer side of said casing.

12 denotes a water pipe for establishing communication and 13 indicates a water pipe for establishing communication be-

tween the upper end of the housing 6 and the boiler (not shown).

Depending from the lower end of the housing 6 and extending into the casing 1 are oppositely-disposed guide rods 14 having the lower ends thereof connected together by a strap 15. Slidably-mounted upon the rods 14 through the medium of the apertured lugs 16 is a float 17 having secured to the upper end thereof a vertically-disposed support 18 carrying an upper and a lower set of resilient contacts. The contacts of the lower set each consists of curved or bow-shaped metallic arms 19 secured at their upper ends as at 21 to the support 18 and each of the contacts of the upper set of contacts consists of a curved or bow-shaped metallic arm 20 having its lower end secured as at 21 to the support 18. The arms 19 are disposed at right angles with respect to the arms 20.

22 denotes radially disposed bosses carried adjacent to the lower end of the housing 6, these bosses being provided with openings 23 for plugs of insulation 24. In the plugs 24 are mounted the shanks 25 of segment shaped or curved electrodes 26, said electrodes being located within the housing 6, while the outer ends of the shanks 25 protrude from the casing and are provided with binding posts 27 and 28.

29 denotes an electric bell; 30 a battery and 31 a switch, said bell, battery and switch being connected by wires 32 to form an electric circuit.

33 denotes an electric bell; 34 a battery and 35 a switch, said bell, battery and switch being connected by wires 36 to the binding posts 28.

If the water within the boiler is low, the float 17 will be lowered and cause the resilient contacts 20 to engage oppositely disposed electrodes and establish a circuit through the bell 29 and battery 30 and sound an audible alarm. Should water in the boiler rise above its normal level, the float 17 will be elevated allowing the lower set of contacts 19 to establish a circuit through the electrodes, battery 34 and bell 33, thereby sounding an alarm.

From the foregoing it will be observed that I have devised two sets of signals for the water gage, have eliminated the coupling member and goose-neck connection referred

to in my prior patent, thus simplifying the construction and attaining separate signals that can be made distinguishable whereby an engineer can immediately determine the condition of a boiler.

Having now described my invention what I claim as new, is:—

1. In a water gage a casing, a housing mounted thereon and communicating there-
 10 with, a water pipe communicating with said casing, a water pipe communicating with said housing, guide rods carried by the hous-
 ing and depending into said casing, a float
 15 slidably-mounted upon said rods and pro-
 vided with a vertically-disposed support, an
 upper and a lower set of resilient contacts
 secured to said support, the contacts of the
 upper set disposed at right angles with re-
 spect to the contacts of the lower set, and two
 20 pairs of electrodes, the electrodes of each pair
 being oppositely-disposed, and the electrodes
 of one pair coöperating with one set of con-
 tacts, and the electrodes of the other pair as-
 sociating with the other set of contacts.
2. In a water gage, a casing, a housing
 25 mounted thereon and communicating there-
 with, a water pipe communicating with said

casing, a water pipe communicating with
 said housing, guide rods carried by the hous-
 ing and depending into said casing, a float 30
 slidably-mounted upon said rods and pro-
 vided with a vertically-disposed support, an
 upper and a lower set of resilient contacts
 secured to said support, the contacts of the
 upper set disposed at right angles with re- 35
 spect to the contacts of the lower set, two
 pairs of electrodes, the electrodes of each pair
 being oppositely-disposed, the electrodes of
 one pair coöperating with one set of contacts,
 and the electrodes of the other pair associat- 40
 ing with the other set of contacts, means car-
 ried by the housing for supporting said elec-
 trodes, and each of said electrodes having a
 segment-shaped inner end arranged in the
 path of one of the contacts, and alarm cir- 45
 cuit connections associating with each pair of
 electrodes.

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

JULIUS TOROK.

Witnesses:

B. T. KELLEY,
 JOSEPH LAPORA.