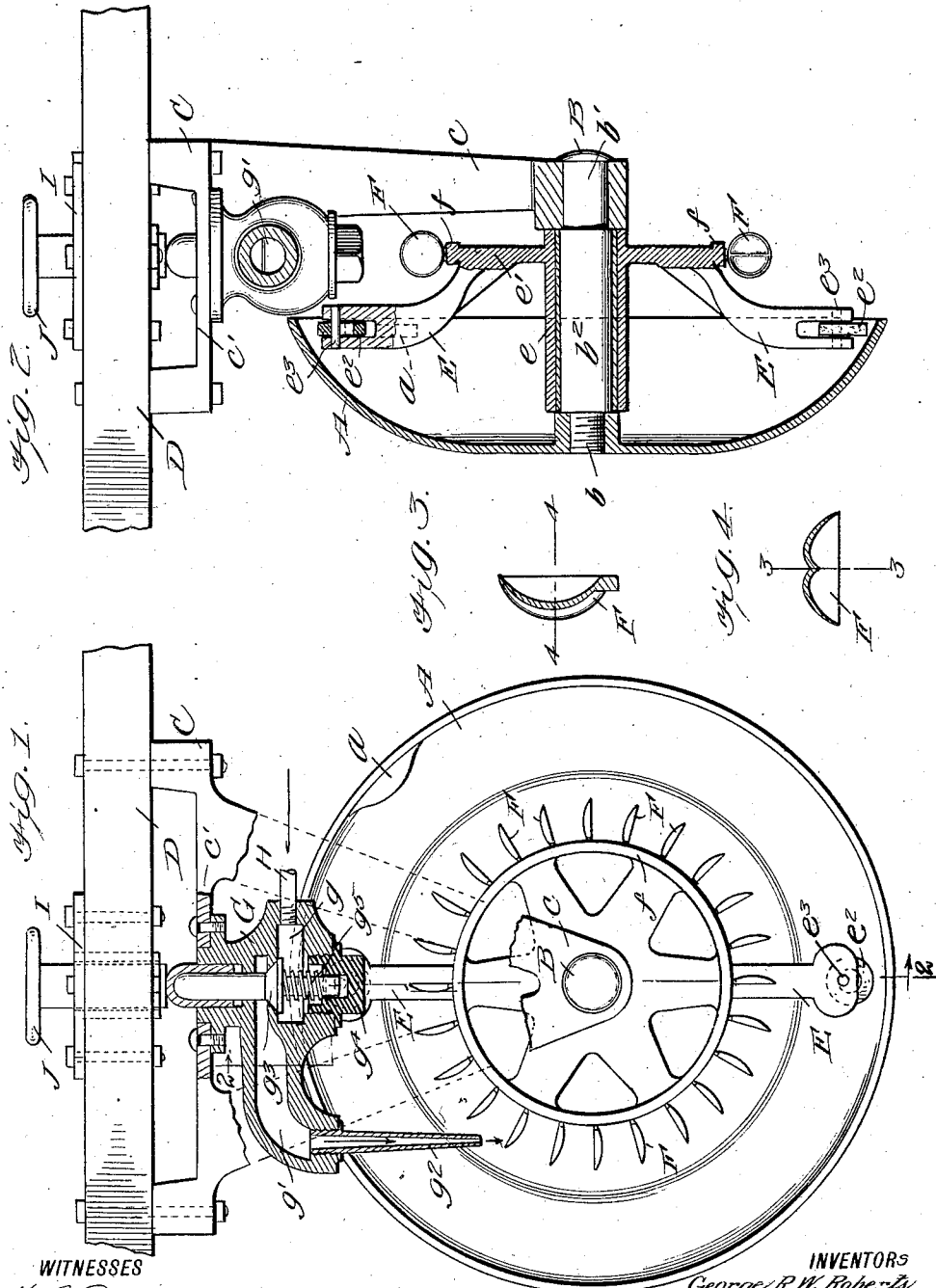


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 FLUID ACTUATED GONG.
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1,047,706.

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UNITED STATES PATENT OFFICE.

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FLUID-ACTUATED GONG.

1,047,706.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, GEORGE R. W. ROBERTS and HARRY HOOPES SEELY, citizens of the United States, and residents of Alameda, in the county of Alameda and State of California, have invented certain new and useful Improvements in Fluid-Actuated Gongs, of which the following is a specification.

10 Our present invention relates to fluid actuated gongs for street railway cars, and in fact any other vehicle which has an air brake system or is capable of carrying a supply of fluid under pressure.

15 The object of our invention is to provide inexpensive means whereby to continuously sound a gong without effort on the part of the operator subsequent to the opening of a valve for the purpose of starting the actuation.

20 In the accompanying drawing which illustrates our invention in detail, Figure 1 is a side elevation, partly broken away and in section, of a gong and sounding means constructed in accordance with our invention; Fig. 2 is a partial central vertical section through the device and taken substantially on the line 2—2 of Fig. 1; Fig. 3 is a detail vertical section through one of the impulse members or buckets, taken substantially on the line 3—3 of Fig. 4; and Fig. 4 is a detail cross section through the same taken substantially on the line 4—4 of Fig. 3.

30 Referring now to these figures, we provide a bell or gong A having on its inner surface adjacent its peripheral edge an enlargement a which the strikers, to be hereinafter described, are adapted to engage in the course of their travel. The bell or gong A is centrally secured by means of a threaded connection with one reduced end b of its stem B, the opposite reduced end b' of which is securely held in the lower apertured end of the depending V-shaped portion c of a bracket C, said bracket including an upper plate c' extending horizontally above the bell or gong A and adapted to be secured, for instance, by bolts or like fastening members as shown, to the platform D of a street railway car or other vehicle in connection with which the continuously ringing gong is desired to be used.

50 The intermediate portion b^2 of the stem B forms a bearing for the striker which, for the purposes of our present invention, we prefer to be of a rotatory character and to

comprise a hub portion e which is mounted directly upon the bearing b^2 and a spider wheel e' which is supported by the hub e , and from which in turn project the radial striker arms E of which there may be one or more. Each of these striker arms, which are offset from the plane of the spider wheel e' , is provided with a bifurcated outer end in which is disposed a striker ring e^2 , the latter being loosely held in the bifurcation by a small pin e^3 which passes through the ring and also extends through portions of the striker arm. It will be noticed from Fig. 2 that the striker ring e^2 is in substantially the same plane with the projection a of the gong A so that in the rotatory movement of the parts, said projection will be successively engaged by the striker rings of the several striker arms.

70 The spider wheel e' is preferably provided with a rim f , such as shown in order that the same may be adapted to support a circular series of impulse members or buckets F, these buckets being of the particular construction shown in Figs. 3 and 4, and being adapted to receive a jet of fluid for the purpose of causing rotation of the striker with which they have connection as before described.

80 Secured beneath the plate c' forming part of the bracket C, and depending from an opening therein, is a valve casing G, having chambers g, g' , from the latter of which depends a nozzle g^2 , this nozzle being tangential to the impulse members or buckets F, as shown particularly in Fig. 1. With the other chamber g communicates an inlet pipe H, which in the case of a street railway car, may lead from a suitable part of the brake system and thus supply operating fluid, or in the case of a vehicle not equipped with means for supplying air, it may lead from a storage tank carried by the vehicle. The valve chambers g and g' are separated by a diaphragm in which is formed an opening surrounded by a valve seat and adapted to receive thereagainst the conical valve g^3 , the upper portion of the stem of which projects through the before-mentioned opening in the bracket plate c' and terminates slightly below the vehicle platform D. The lower portion of the stem or valve g^3 extends downwardly within a guide formed in the removable plug g^4 , and around this portion of the said valve stem is coiled a spring g^5 which is compressed between the lower

face of the valve and the said plug g^4 in order to normally hold the valve upwardly against the seat. In order that the valve may be conveniently opened for the admission of the fluid under pressure, we preferably provide a foot pedal J which is movable downwardly within a guide j secured within an opening in the car platform D. Thus the lower end of the pedal J may engage the upper end of the valve stem, whereby lowering movement of the said pedal causes lowering movement of the valve to its open position.

Thus it will be seen that the means which we have carefully explained will continuously ring a gong with only an initial effort required on the part of the operator to open the valve, and that the parts require but little change in order to adapt them to actuate a gong sounded by means of a swinging hammer instead of a rotatory striker, as at present shown, and, in fact, many other types of gongs now in use. It will be further seen that our invention possesses both strength and durability, and is generally free from parts which are likely to get out of order.

We claim:—

1. The combination of a gong having a bucket wheel, a striker carried by the bucket wheel, a main support, a bracket depending

from the said main support and carrying the gong, a foot pedal mounted through the main support, a valve casing mounted in the bracket and having a nozzle adapted to propel an actuating fluid against the said bucket wheel, and a valve member within the said valve casing and having an upwardly projecting stem beneath the foot pedal.

2. The combination with a gong having a striker, of a fluid actuated rotor connected to the striker, a bracket member having a depending portion on which said gong and its striker are supported and also provided with an upper portion extending above the gong, a valve casing secured to said upper portion of said bracket and having an inlet at one side, a nozzle projecting from the opposite side of said valve casing and arranged to deliver an actuating fluid to said impulse members, and an upwardly seating spring controlled valve within the casing between the said inlet and the said nozzle and having an upwardly projecting stem extending above the valve casing and above the upper portion of the bracket, for the purpose described.

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Witnesses:

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