June 5, 1934. G. SWAIM 1,961,869

METER FLAG THROWER

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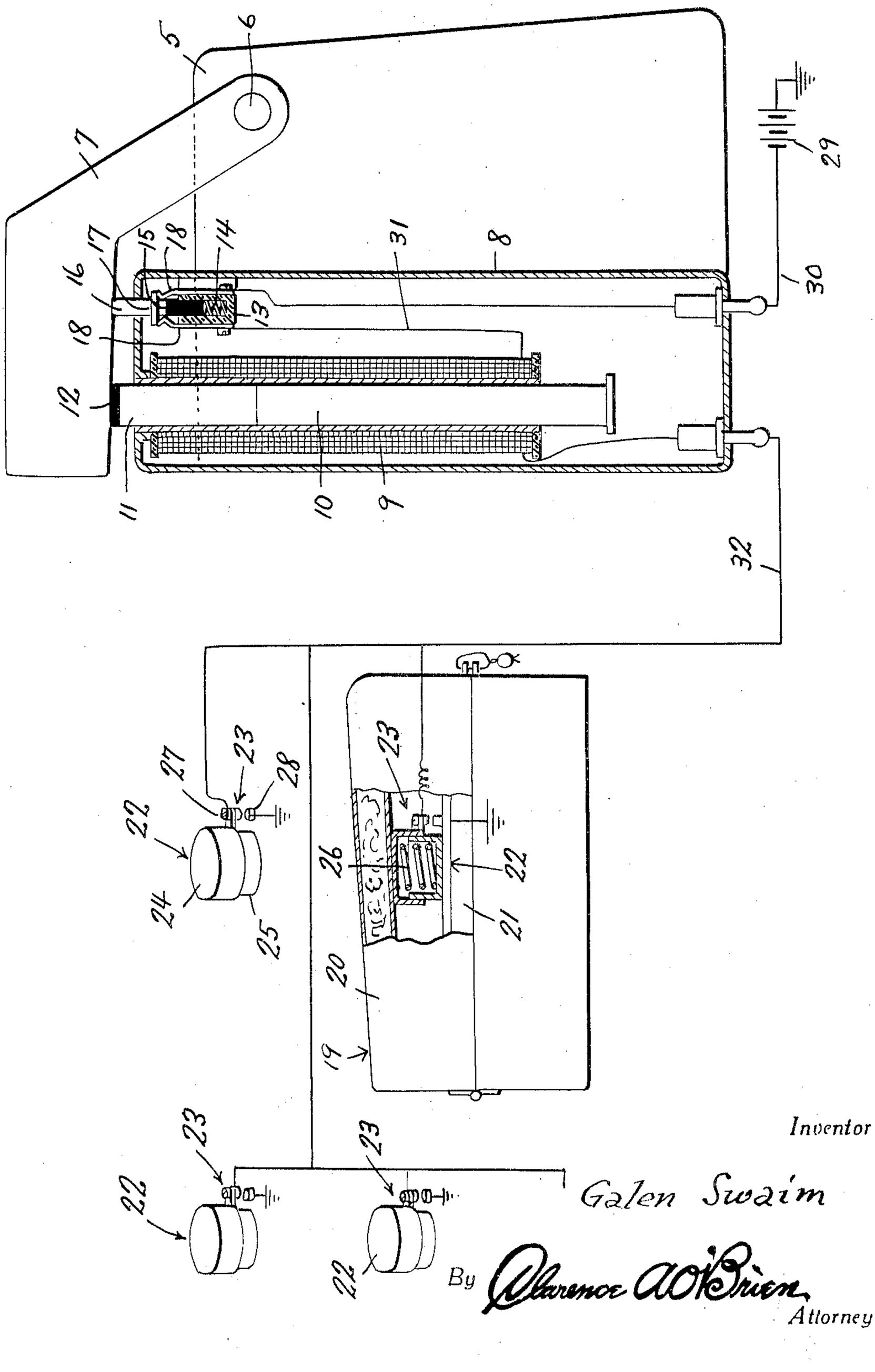

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METER FLAG THROWER

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1 Claim. (Cl. 177—311)

This invention appertains to new and useful improvements in taxicab meters, and the principal object of the invention is to provide means whereby the meter flag of the taxicab is thrown to operative position when a passenger enters the cab and sits upon one of the seats.

Another important object of the invention is to provide automatic means for setting the cab meter in operation upon the entrance of a passenger without the personal attention of the cab driver.

Still another important object of the invention is to provide means for automatically starting a cab meter upon the entrance of a passenger, so that passengers cannot be carried without simultaneous operation of the meter.

These and other important objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawing:—

The single view represents a diagrammatic view disclosing the electrical connections between the electrical devices involved.

Referring to the drawing wherein like numerals designate like parts, it can be seen that numeral 5 represents the sign of the usual cab meter housing, the mechanism of which is set in motion by the shaft 6 having an external flag 7 which when operated moves the shaft 6 to set the mechanism in operation.

In carrying out the present invention, a casing 8 is suitably secured to the housing 5 and has an electro-magnet 9 mounted vertically therein. This electro-magnet 9 has a slidable core 10 and resting upon the upper end of this core 10 is a plunger 11 of some suitable nonmagnetic material insulated as at 12 from the flag 7. This plunger 11 extends through an opening in the upper end of the casing 8 and engages against the under portion of the flag 7.

Numeral 13 represents a small barrel located in the casing 8. This barrel is of di-electric material and has a spring 14 therein normally serving to urge the di-electric member 15 upwardly, the latter being provided with a metallic extension 16 having a bridge piece 17 thereon capable of bridging the spring contacts 18—18 when the flag 7 is resting on the metallic extension 16.

Numeral 19 represents a passenger seat which includes the upholstered portion 20 and the stationary base 21. Interposed between the upholstered portion and the base 21 are a suitable number of the spring units 22 with each of which a switch generally referred to by numeral 23 is employed.

These spring and switch devices can also be employed on the "jump" seat, as well as on the rear seat of the taxicab so that a passenger when he sits on any one of the seats automatically starts the meter.

Each of the spring units includes a pair of telescopic shells 24—25 between which a cushioning spring 26 is interposed. The upper shell 24 which is attached to the upholstered section 20 carries a contact 27 which when depressed engages the stationary contact 28 located on the base 21.

Numeral 29 represents a battery from which the lead 30 extends to one of the spring contacts 18 and from the other spring contact 18 the jumper 31 extends to one side of the electro-magnet 9. The opposite side of the electro-magnet is connected to all of the contacts 27 by the conductor 32 and its associated branch wires.

It can now be seen that when a passenger sits on one of the seats and one of the contacts 27 is brought into engagement with one of the stationary grounded contacts 28, current will flow from the battery 29 through the wires 30 and by way of the contacts 18 and bridge piece 17 to the wire 31. From the wire 31 the current passes through the coil 9, energizing the coil and passes through the ground by way of the contacts 27 and 28.

This energization of the coil 9 projects the plunger 11 upwardly, elevating the flag 7 to a position setting the meter mechanism in operation. This breaks the circuit of the switch located adjacent the electro-magnet, as the spring 14 will force the di-electric member 15 upwardly and disengage the bridge piece 17 from the contacts 18—18.

The metering mechanism will now stay in registering position until the usual fare ticket has been dispensed in which operation the flag is returned to the inoperative position, and it is with this particular type of meter, the present invention is to be associated.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having thus described my invention, what I claims as new is:—

In combination with a cab flag, a source of energy, seat switches; a controlling unit, said unit comprising a solenoid having a movable core operating in the path of the flag, said source of energy and switches and solenoid being in series, and a flag operated switch also mounted in the path of the flag and electrically interposed between the source of energy and the seat switches, said flag switch being operative to closed position under the weight of the flag, said solenoid being operative with its core when energized to shift the flag, and means for moving said switch to open circuit position when the weight of the flag is removed.

GALEN SWAIM.