

No. 668,909.

C. J. DORAN.  
ELECTRIC SWITCH.

Patented Feb. 26, 1901.

(No Model.)

(Application filed Sept. 11, 1900.)

FIG. 1

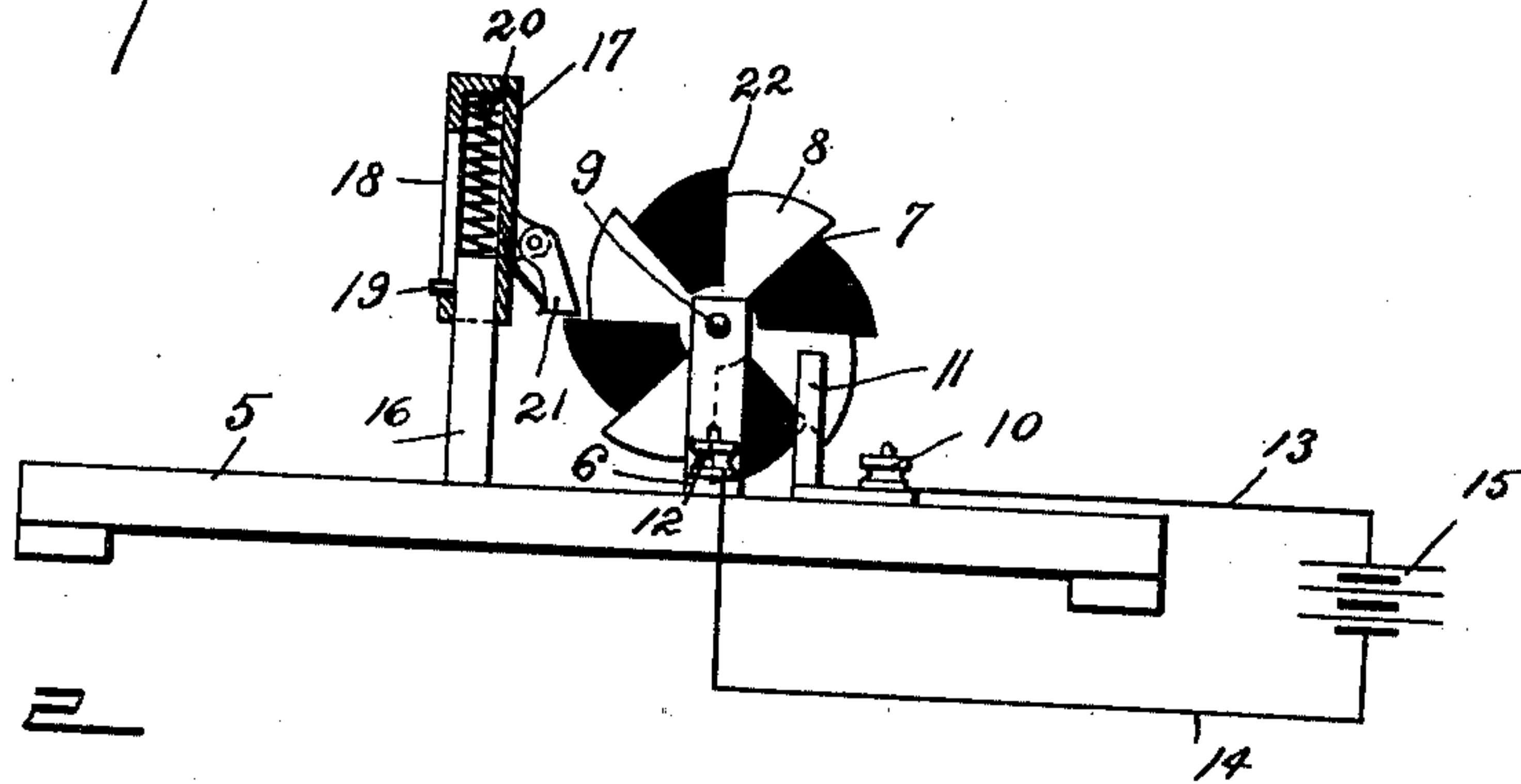
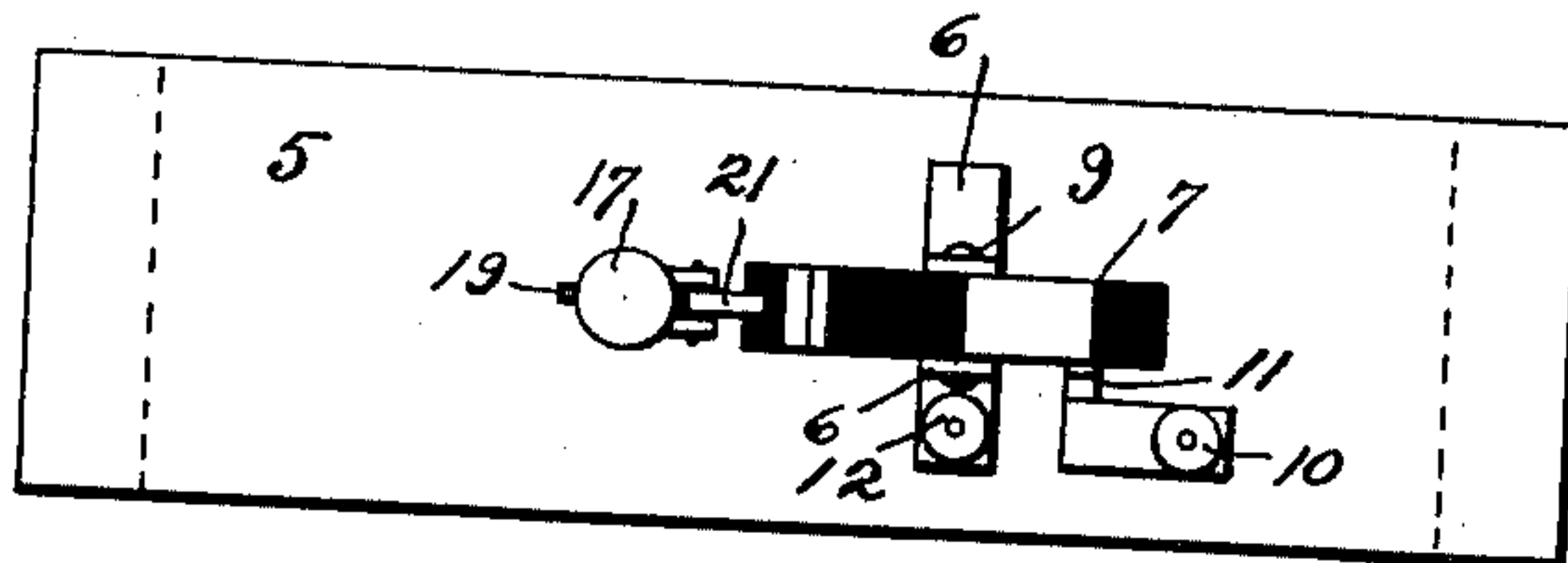


FIG. 2



WITNESSES  
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# UNITED STATES PATENT OFFICE.

CHRISTOPHER JEROME DORAN, OF JERSEY CITY, NEW JERSEY.

## ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 668,909, dated February 26, 1901.

Application filed September 11, 1900. Serial No. 29,630. (No model.)

*To all whom it may concern:*

Be it known that I, CHRISTOPHER JEROME DORAN, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Electric Switches, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to electric switches; and the object thereof is to provide an improved device of this class which is simple in construction and operation and which may be used wherever devices of this class are required.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a side elevation of my improved switch, and Fig. 2 a plan view thereof.

In the practice of my invention I provide a base or support 5, which is provided with two uprights or standards 6, between which is mounted a wheel 7, composed of a plurality of sectors 8, of which each alternate sector is composed of rubber or other insulating material. The hub of the wheel and the alternate sectors are composed of metal and the rubber or insulating sectors are set thereinto, and the shaft or pin 9 on which the wheel is mounted is metal, and the said hub of the wheel and the standards 6 are therefore in electrical connection, said standards being also composed of metal.

Arranged in front of the wheel 7 and at one side thereof is a binding-post 10, with which is connected a brush 11, which is adapted to bear on the side of the wheel, and connected with one of the standards is a binding-post 12, and the line-wires 13 and 14 are connected with these posts and in connection with a battery 15 form a circuit in which the wheel 7 is placed.

Rearwardly of the wheel 7 is placed a post 16, on which is mounted a vertically-movable tubular spring-supported button or head 17,

provided at one side with a slot 18, through which passes a pin 19, connected with the post 16. A spring 20 is placed in the button or head 17 and rests on the post 16 and is designed to normally hold said button or head in a raised position.

Pivotally connected with the button or head 16 on the side thereof adjacent to the wheel 7 is a spring-operated dog 21, which is adapted to bear on the teeth 22 of the separate sectors from which the wheel 7 is formed. The sectors 8, which make up the wheel 7, are longer at one side than at the other, whereby the teeth 22 are formed, and the normal position of the dog 21 is that shown in Fig. 1, and a downward movement of the button or head 17 will turn said wheel through one-eighth of a revolution, there being eight of the sectors 8, and consequently eight of the teeth 22.

The brush 11 bears on the side of the wheel as the latter turns, and at each complete revolution of said wheel the circuit will be made and broken four times, it being apparent that when the brush 11 rests on one of the metal sectors of the wheel the circuit will be closed, and when it rests on one of the rubber or insulating sectors the circuit will be open.

My improved switch is simple in construction and operation and also comparatively inexpensive, and it will be apparent that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

A switch comprising a base-support, wheel-supports mounted thereon, a wheel mounted between said supports and composed of separate sectors, each of which is provided with a projecting tooth, the alternate sectors being composed of insulating material, a brush connected with the base-support and adapted to bear on the side of the wheel, line-wires connected with said brush and with one of the wheel-supports, a vertical post secured at the rear of the wheel, a tubular button mounted on the said post, which latter extends there-

into, a spring interiorly of the button and  
resting upon the post to normally hold the  
said button in a raised position, and a spring-  
operated dog mounted upon one side of the  
5 button adjacent to the wheel and resting upon  
the sector below it, substantially as shown  
and described.

In testimony that I claim the foregoing as

my invention I have signed my name, in pres-  
ence of the subscribing witnesses, this 10th 10  
day of September, 1900.

CHRISTOPHER JEROME DORAN.

Witnesses:

F. A. STEWART,

C. C. OLSEN.