

(No Model.)

S. F. TUFTS.
TROLLEY FOR ELECTRIC CARS.

No. 571,710.

Patented Nov. 17, 1896.

Fig. 1.

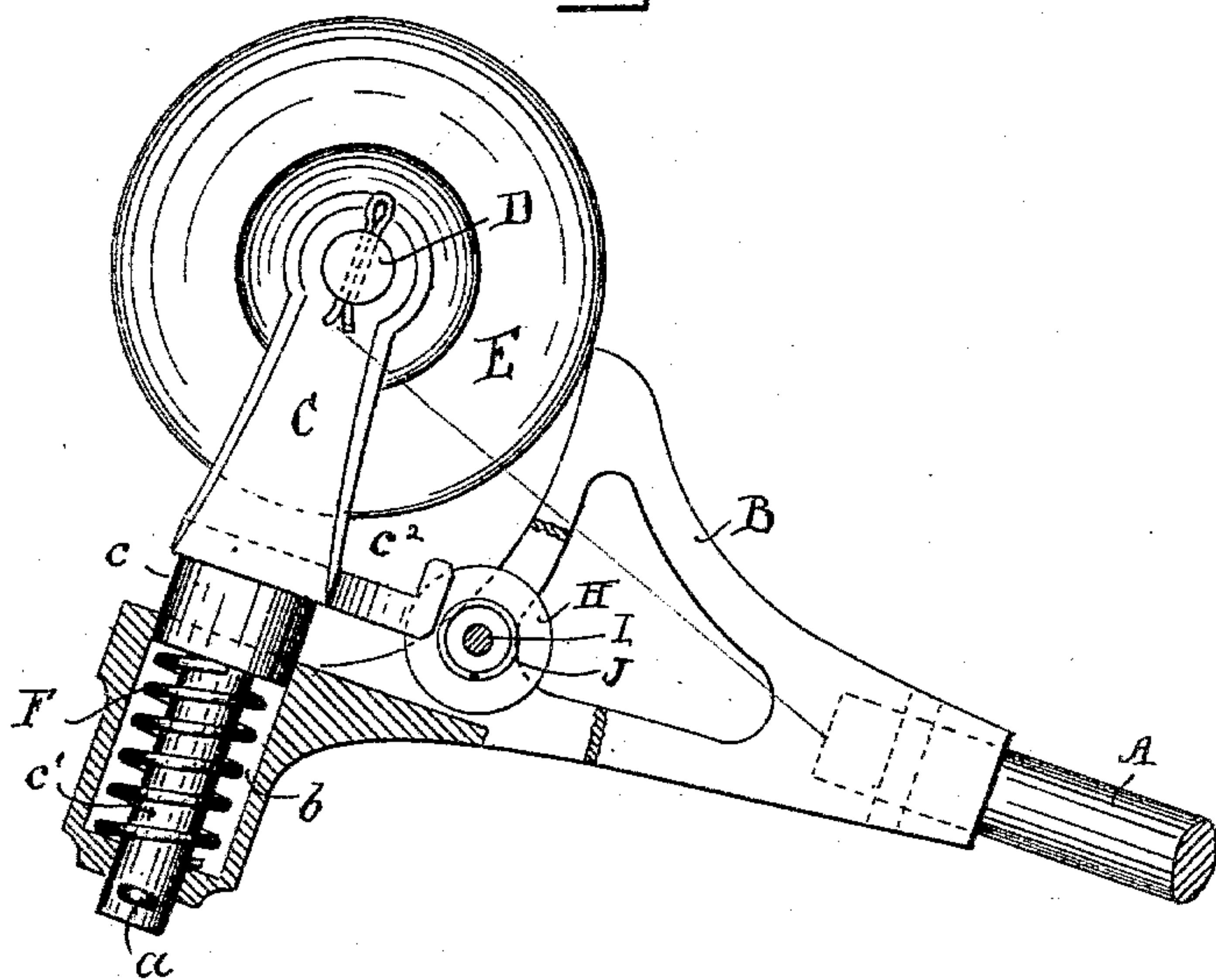
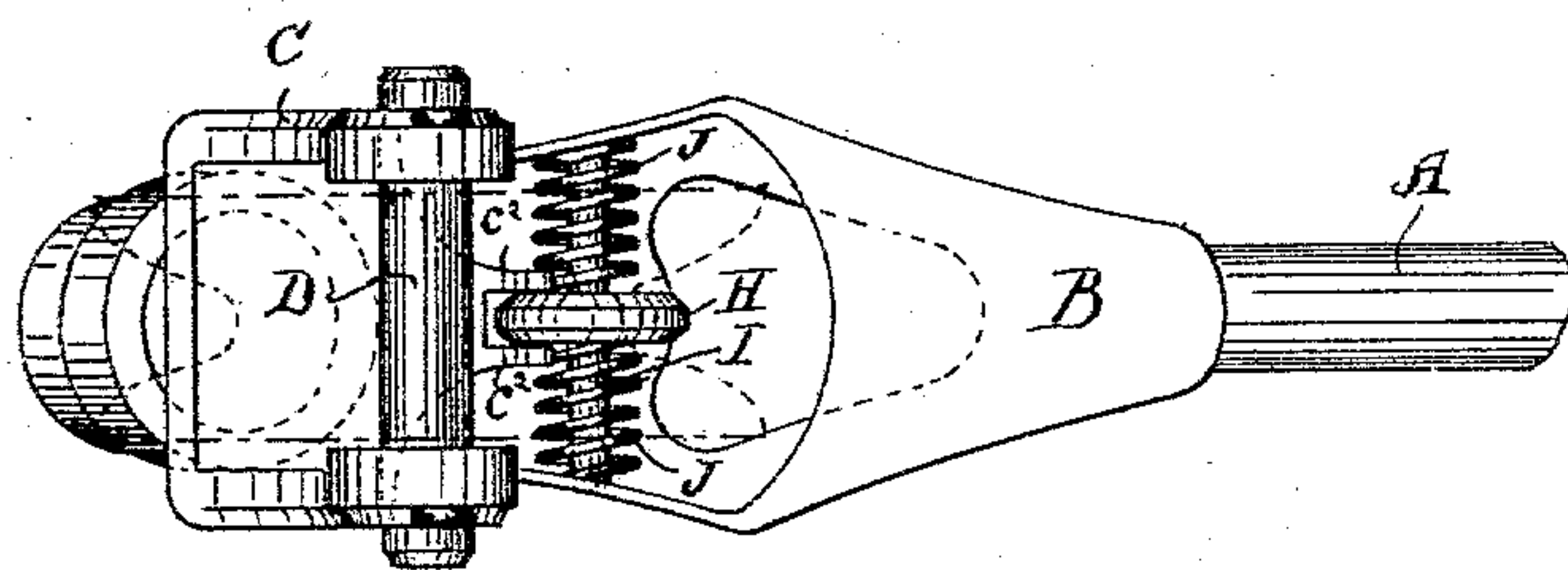


Fig. 2.



Witnesses

Edward C. Brown
Russell J. Wood

Inventor

Samuel F. Tufts.
by Edwin Blanta
Attorney.

UNITED STATES PATENT OFFICE.

SAMUEL F. TUFTS, OF WESTBROOK, MAINE.

TROLLEY FOR ELECTRIC CARS.

SPECIFICATION forming part of Letters Patent No. 571,710, dated November 17, 1896.

Application filed October 9, 1895. Serial No. 565,111. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL F. TUFTS, a citizen of the United States, residing at Westbrook, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Trolleys for Electric Cars, of which the following, taken in connection with the accompanying drawings, is a specification.

10 Trolleys for electric cars as usually constructed have the contact-wheel rigidly journaled at the end of the trolley-pole, and the wheel when passing around curves or from one wire to another is liable to and often does slip from the conducting-wire, thus breaking the contact and causing the car to stop.

15 The object of my invention is to overcome this defect; and the invention consists in so mounting the contact-wheel that it will have a vertical and a lateral motion, whereby it is always held in contact with the conducting-wire.

Referring to the accompanying drawings, Figure 1 is a side elevation of a contact-wheel and trolley-head, partly in section, embodying my invention. Fig. 2 is a plan or top view of same with the contact-wheel shown in dotted lines.

30 A represents the trolley-pole; B, the trolley-head, in which is mounted a standard or truck C, having at its upper end a short shaft or spindle D, upon which is mounted the trolley-wheel E. The lower end *c* of the standard C is round and fits into a socket *b* in the trolley-head B, and its lower end portion *c'* is reduced in diameter and surrounded by a spiral spring F, that bears upon the bottom of the socket *b* and under the portion *c*, so as to keep the said standard pressed up

to hold the wheel E in contact with the wire, 40 the travel of the standard C being limited by a pin *a*, that comes into contact with the under side of the head B. The standard C is provided with two arms *c'*, and between them is fitted a disk H, mounted on and free to 45 slide upon a rod I, carried by the head B. Around this rod on each side of the disk H is placed a spiral spring J, the tension of the two springs being equal, so as to hold said disk nominally in a central position, but read- 50 ily allowing the wheel E and truck C to turn to adapt themselves to any curve that may be in the road.

It will be readily seen that by giving to the truck C and wheel E two motions—namely, a 55 vertical yielding motion and a partial rotary motion—the trolley-wheel E is prevented from jumping from the wire, it being pressed closely to and held in contact with said wire, whether running in a straight line or around a curve. 60

What I claim is—

In combination with a trolley for electric cars a trolley-wheel mounted in a standard carried by a head, a spring for holding said standard in a raised position, arms on said 65 standard, a disk working between said arms and carried by and free to slide upon a rod secured in the head and a spring on each side of said disk to hold it normally in a central position substantially as set forth. 70

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 25th day of January, A. D. 1895.

SAMUEL F. TUFTS.

Witnesses:

CHAS. STEERE,
EDWIN PLANTA.