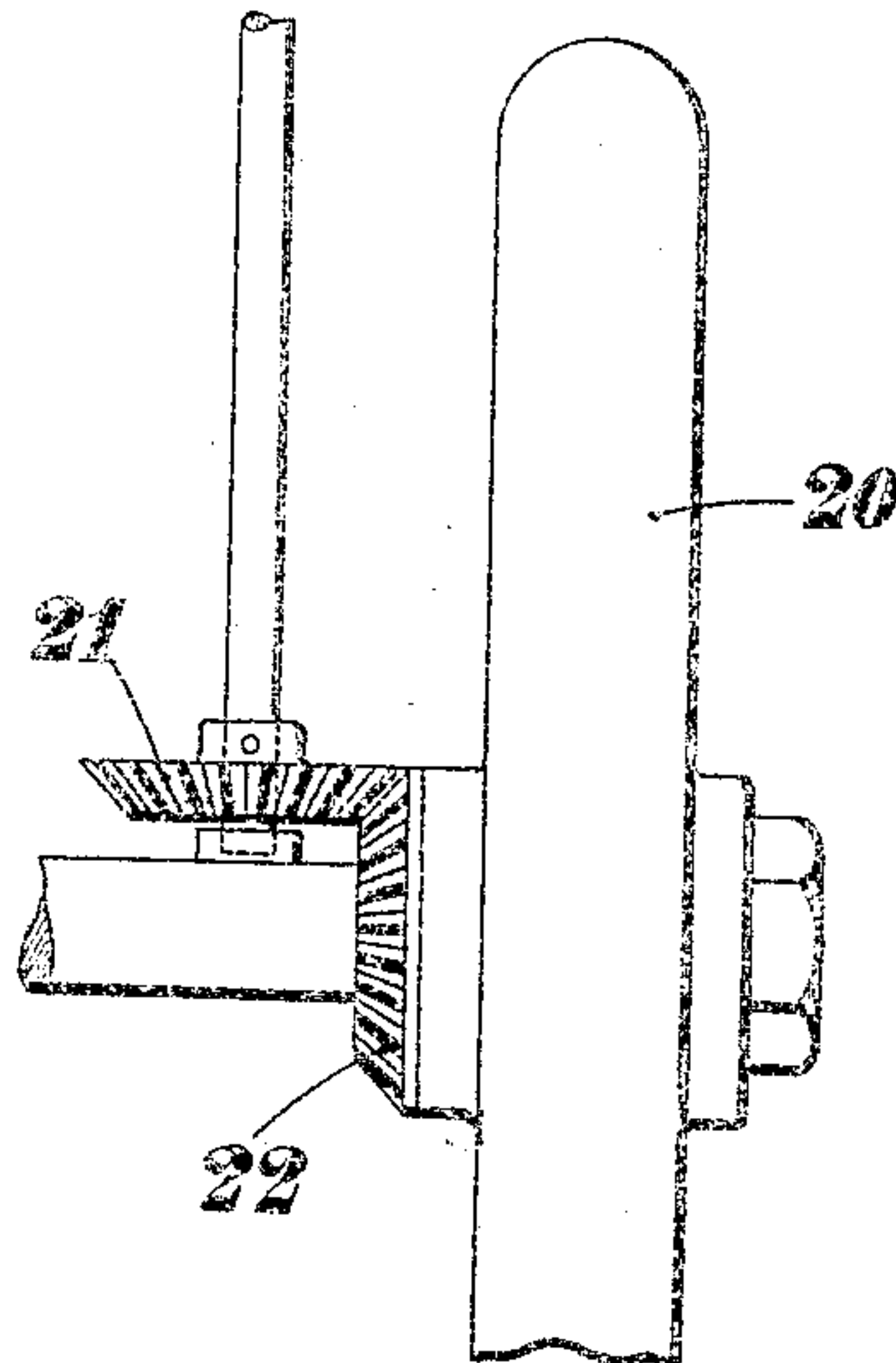
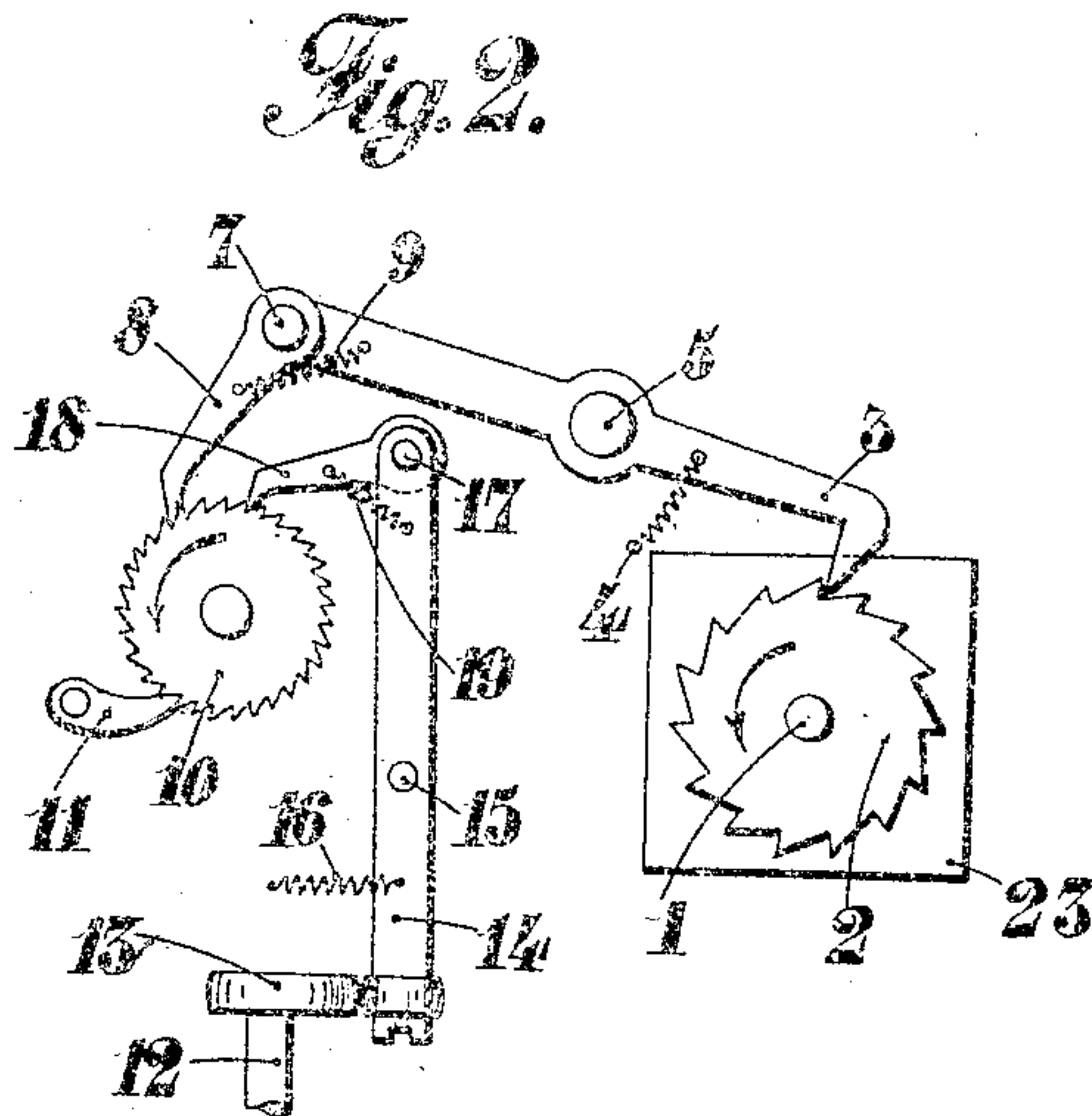
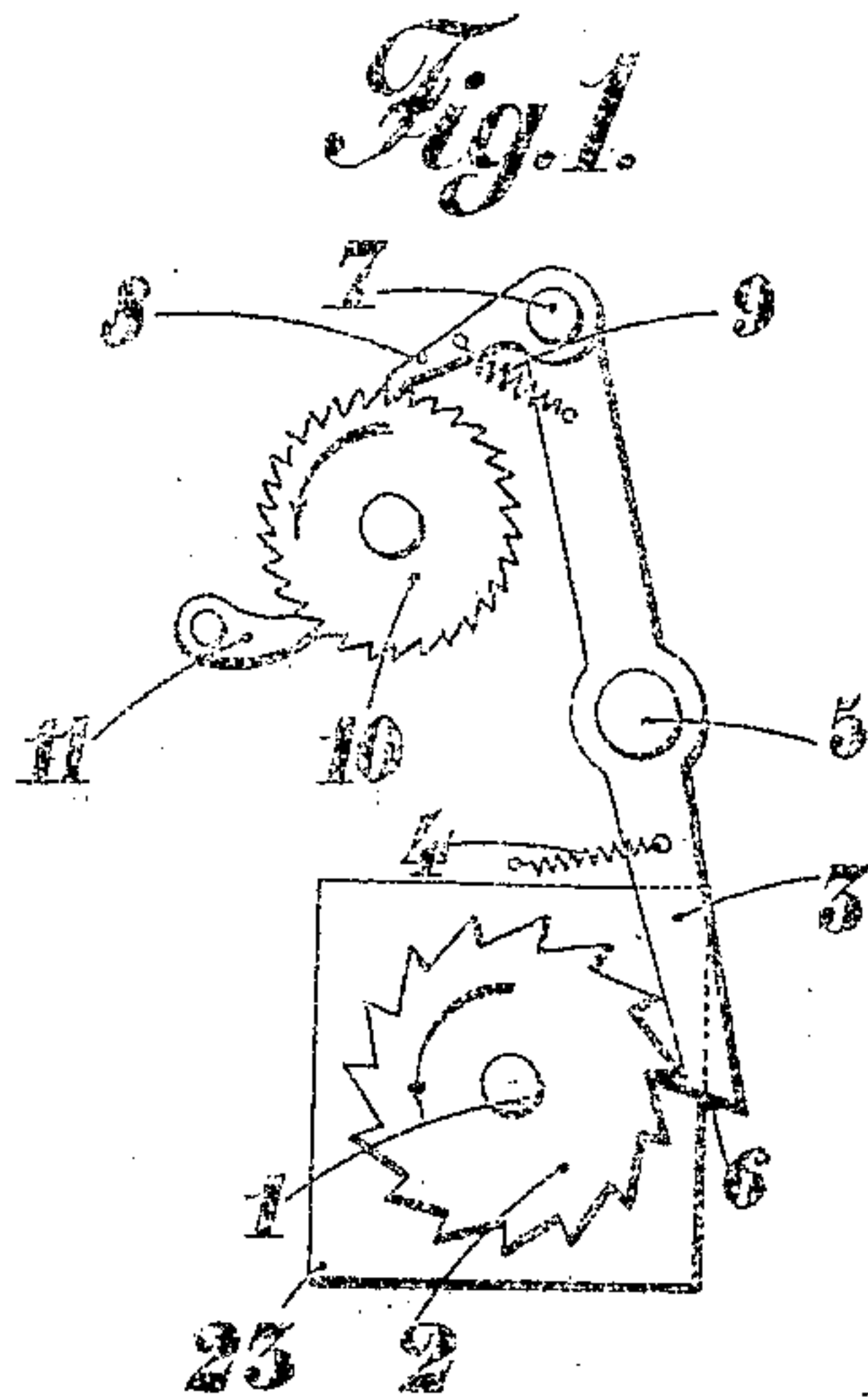


C. MASCART.  
PAWL TRANSMISSION GEAR FOR TAXIMETERS.  
APPLICATION FILED JAN. 15, 1908.

903,748.

Patented Nov. 10, 1908



Witnesses:

*[Signature]*  
*[Signature]*

Inventor

*Charles Mascart*  
By *James R. Norris*

*[Signature]*



# UNITED STATES PATENT OFFICE.

CHARLES MASCART, OF PARIS, FRANCE.

## PAWL TRANSMISSION-GEAR FOR TAXIMETERS.

No. 903,746.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed January 15, 1908. Serial No. 410,991.

*To all whom it may concern:*

Be it known that I, CHARLES MASCART, citizen of the French Republic, residing at Paris, France, and whose post-office address is 27 Rue de Loudres, in the said city, have invented certain new and useful Improvements in Pawl Transmission-Gear for Taximeters, of which the following is a specification.

10 This invention has for its object the application to taximeters of a pawl transmission gear intended to replace the toothed wheel gear generally used. The arrangement forming the object of the invention may also be used in other apparatus, such as 5 water meters, gas meters and the like.

Driving arrangements consisting of toothed wheel gear have a number of disadvantages, such as high cost, difficulty of adjustment and friction caused by a more, or 20 less, amount of eccentricity of the wheels; the latter often causing the stoppage of the clock in the taximeters working on both time and distance tariff.

25 In the accompanying drawings: Figure 1 shows the application of the pawl-controlling arrangement working according to time tariff, and Fig. 2 shows an arrangement working according to time and distance 30 tariffs.

In the arrangement shown in Fig. 1, the arbor 1 of the clock mechanism indicated diagrammatically by the boxing 23 carries a ratchet wheel 2. A lever 3 held in position 35 by a spring 4 and capable of turning on an intermediate pivot 5 has at one end a tooth 6 serving as a pawl which comes into engagement with the ratchet wheel 2, said lever having attached to its other end by a pivot 40 pin 7 another pawl 8. This pawl is held by a spring 9 to engage a ratchet wheel 10 which controls the registering apparatus. A second pawl 11 prevents the backward motion of the wheel 10.

45 The operation of the mechanism is as follows: The rotation of the ratchet wheel 2 in the direction of the arrow causes the lever 8 to turn on the pivot 5 so that the ratchet wheel 10 is also rotated in the same direction 50 by means of the pawl 8. This principle of power transmission is also applicable to taximeters working according to time and distance tariffs and allows the greater part of the complicated members of the double 55 wheel to be dispensed with. The time and distance arrangement illustrated in Fig. 2

comprises, in addition to the hereinbefore described time tariff gear, a mechanism which imparts to the ratchet wheel 10 a rotation proportional to the distance covered 60 by the vehicle.

On the spindle 12 driven by one of the vehicle wheels as 20, through the intermediary of connecting bevel gears as 21 and 22, is mounted a cam 13 acting on the lever 14 65 which is pivoted between its ends as at 15 and held in its initial position by a spring 16. The said lever 14 carries by means of a pivot pin 17 a pawl 18 which is kept in engagement with the ratchet wheel 10 controlling the registering apparatus by the 70 spring 19.

The object of the apparatus is to indicate a price proportional to the time occupied whenever the speed of the vehicle is less than 75 a given speed and proportional to the distance covered when the speed of the vehicle exceeds the given speed. The wheel 2 is controlled by the clock mechanism and the spindle 12 turns at a speed proportional to 80 the speed of the vehicle. The ratchet wheel 10 is actuated by one, or other, of the levers 3 and 14, whichever oscillates the more rapidly. If the apparatus is properly adjusted, the ratchet wheel 10 will revolve at 85 a speed proportional to that of the ratchet wheel 2 when the vehicle moves forward at a speed less than the predetermined speed. But when the vehicle moves more rapidly than this predetermined speed the 90 lever 14 will cause the ratchet wheel 10 to revolve and its speed will be proportional to that of the spindle 12, and consequently to the speed of the vehicle. The tariff will be according to time in the former case and ac- 95 cording to distance in the latter case.

Having now particularly described and ascertained the nature of my invention and in what manner the same is to be performed, I declare that what I claim is: 100

1. Transmission means of the type set forth, comprising, in combination, a driving ratchet wheel and its shaft, a driven ratchet wheel and its shaft, said shaft being parallel, a member connecting said ratchet wheels to 105 drive the latter from the former, said member comprising a lever pivoted midway of its length and provided with a tooth at one end to engage said driving ratchet wheel and with a pawl at its other end to engage said 110 driven wheel, said tooth and said pawl engaging said wheels at corresponding sides



thereof, and a spring for holding said lever with its toothed end in constant engagement with said driving ratchet wheel.

2. Transmission means of the type set forth, comprising, in combination, a driving ratchet wheel and its shaft, a driven ratchet wheel and its shaft, said shafts being parallel, mechanism for rotating said driving ratchet wheel, a rotatable cam, mechanism for rotating said cam, transmission members for rotating said driven ratchet wheel from said driving wheel and also from said cam, one member being a lever pivoted midway of its length, and having a tooth at one end to engage said driving wheel and a pawl at its other end to engage said driven wheel, said tooth and said pawl engaging said wheels on corresponding sides thereof, a

spring for holding said lever with its toothed end in constant engagement with said driving wheel, and the other member being a lever pivoted midway of its length and having one end formed for engagement by said cam and having its other end provided with a pawl to engage said driven wheel, said levers being angularly disposed, and a spring for holding said last named lever with its end in constant engagement with said cam.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES MASCART.

Witnesses:

H. C. COXE,  
EMILE KLOTZ.