

No. 705,028.

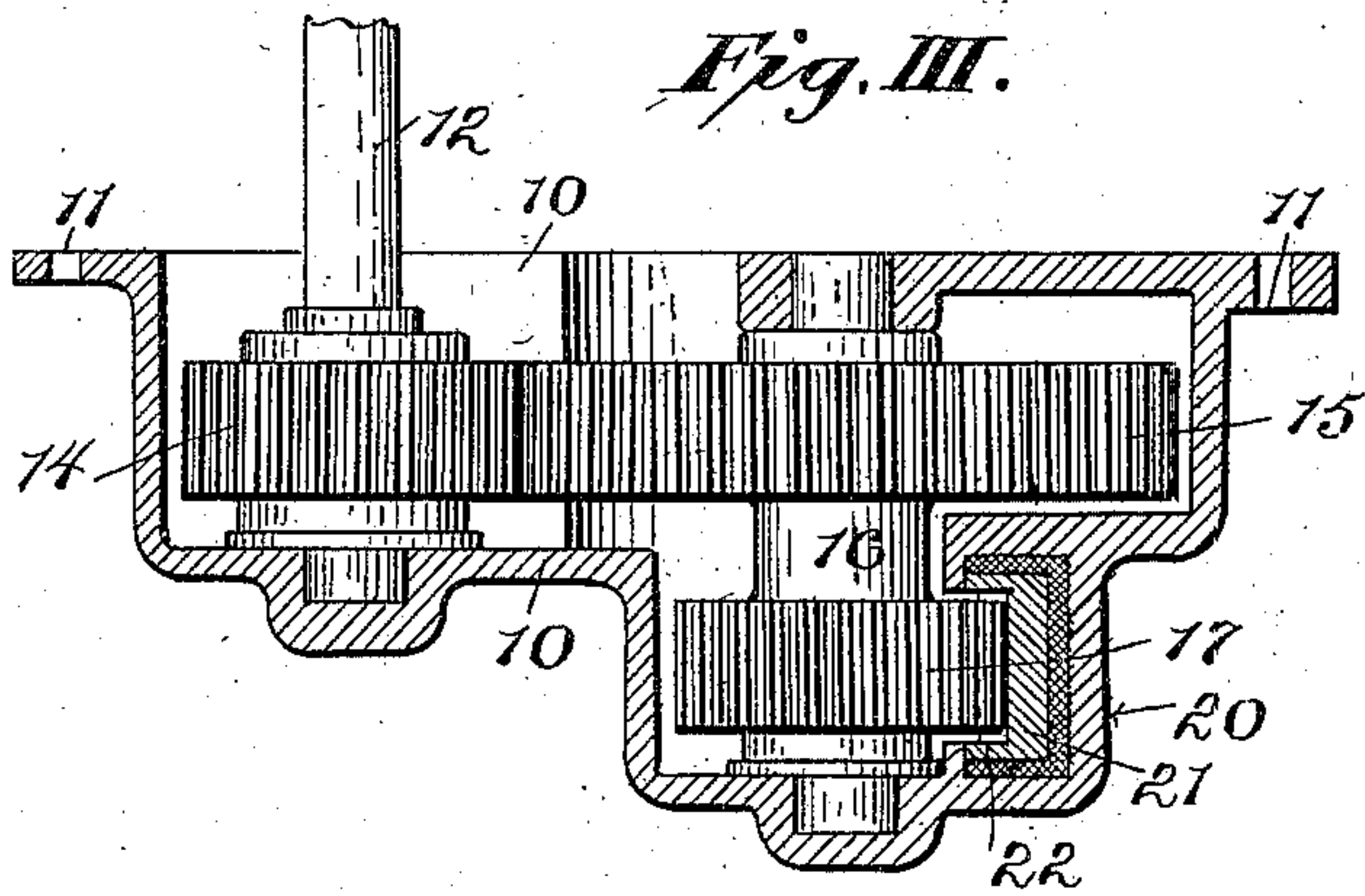
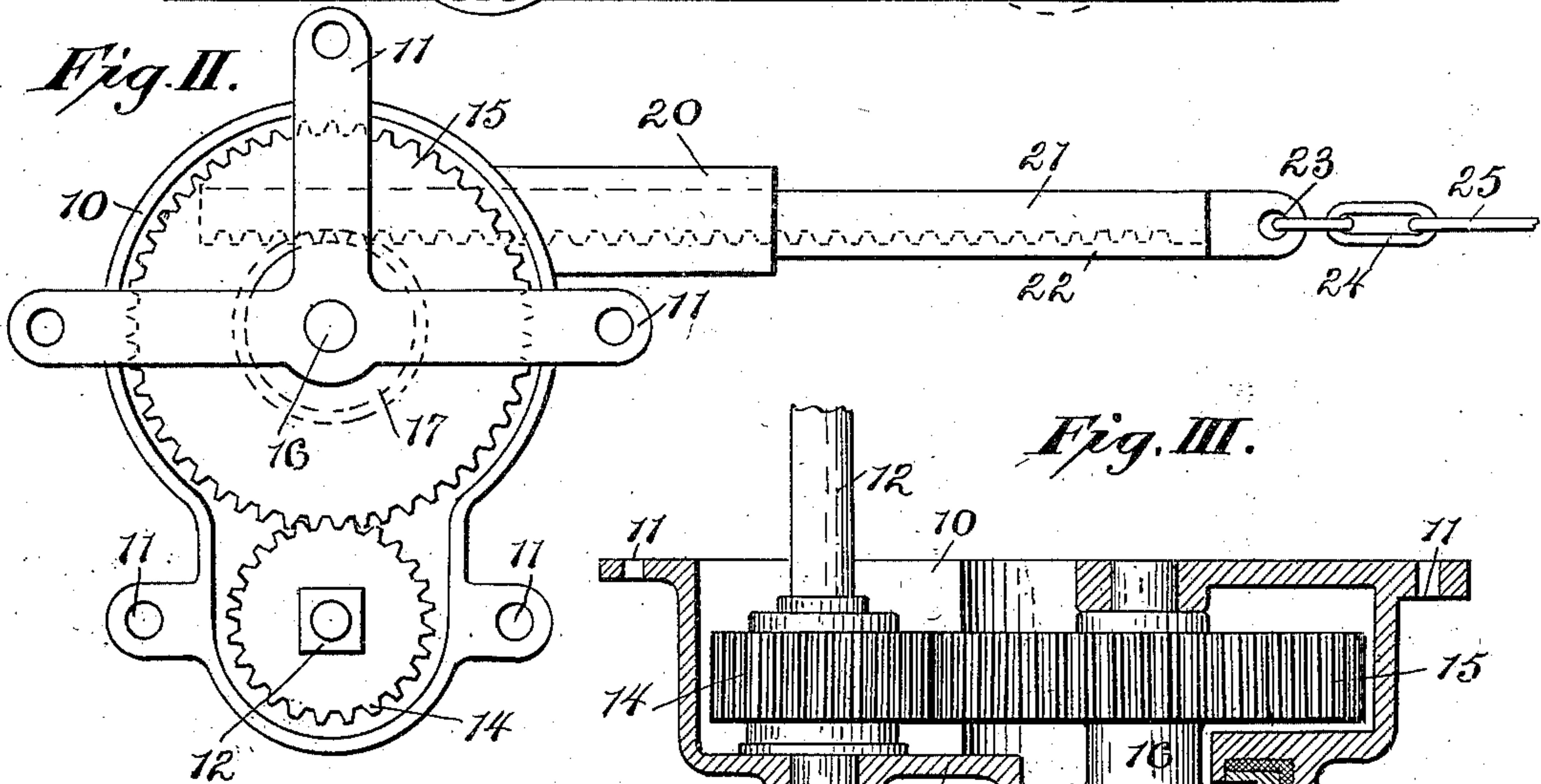
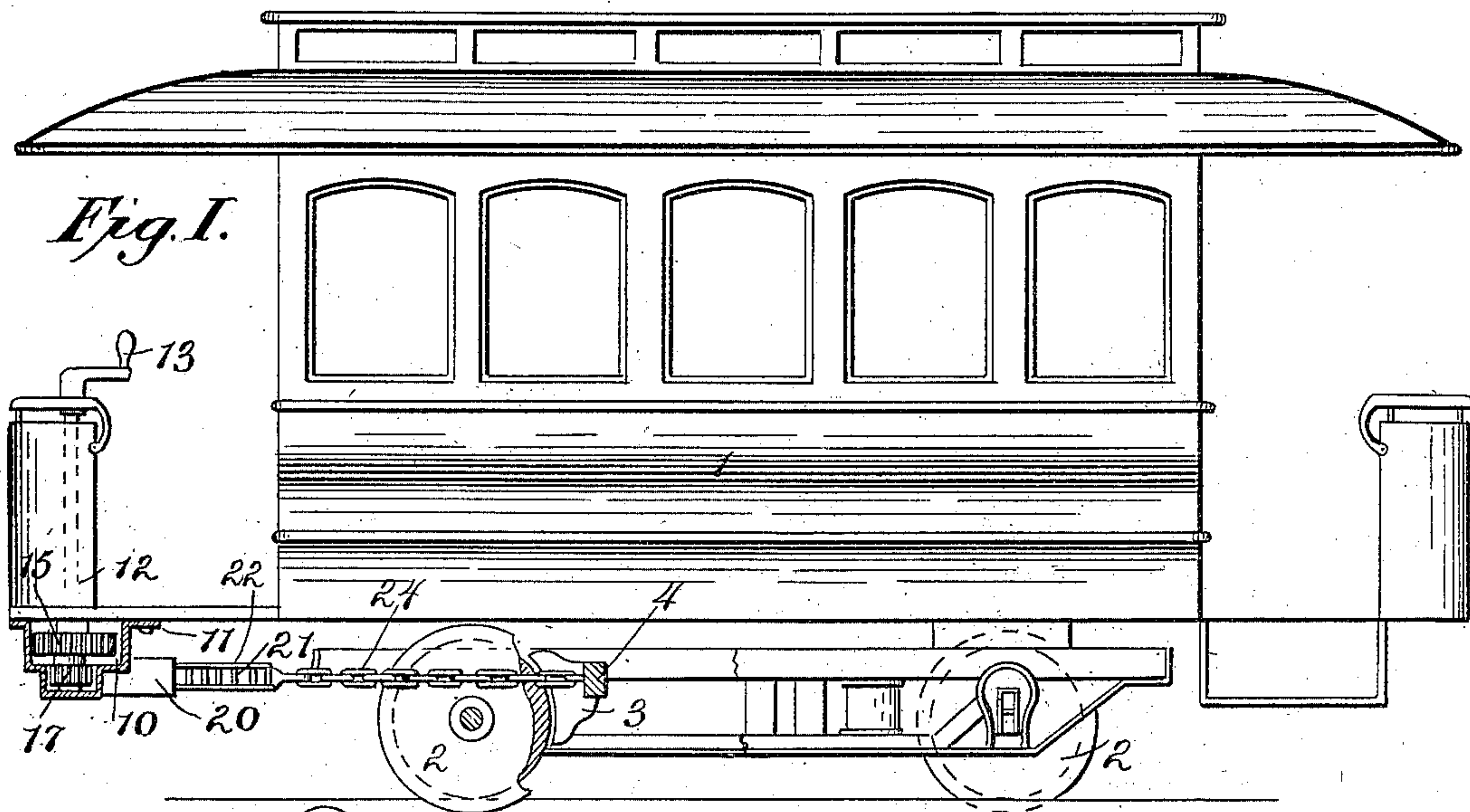
Patented July 22, 1902.

A. BROLUSKA.

CAR BRAKE.

(Application filed May 12, 1902.)

(No Model.)



Witnesses:
Geo. E. Puch
F. R. Pitton

By

Inventor:
Amel Broluska
Collamer & Co.,
Attorneys.

UNITED STATES PATENT OFFICE.

AMEL BROLUSKA, OF DETROIT, MICHIGAN.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 705,028, dated July 22, 1902.

Application filed May 12, 1902. Serial No. 106,901. (No model.)

To all whom it may concern:

Be it known that I, AMEL BROLUSKA, a citizen of the United States, and a resident of Detroit, Wayne county, State of Michigan, have
5 invented certain new and useful Improvements in Car-Brakes; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with a claim particularly
10 specifying the novelty.

This invention relates to railway-cars, and more especially to the brakes used thereon; and the object of the same is to provide an improved connection between the manual
15 brake-shaft and the chain connected with the brake-beam, whereby the force is increased and the winding of the chain around a rotary shaft is avoided.

To this end the invention consists in the
20 specific details of construction described below and illustrated in the accompanying drawings, wherein—

Figure I is a longitudinal section of a street-car to which my improved brake has been applied. Fig. II is an enlarged plan view of the
25 invention, and Fig. III is an enlarged vertical sectional view of the invention.

In the drawings the numeral 1 designates the car, 2 the wheels, and 3 the brake-shoes,
30 mounted on brake-beams 4, all as is common in this art and well known. Heretofore these brake-beams have been swung so as to press the shoes against the wheels by means of chains leading from the beams to rotary
35 shafts, one at each end of the car and having a crank-handle or wheel at its upper extremity by which it was rotated by the motorman, the shaft also preferably having a ratchet-wheel to prevent retrograde move-
40 ment. In that construction the chain was wound upon the shaft as the latter rotated, and the piling up of the links on the shaft and on each other often produced confusion and allowed slipping and always produced a
45 great wear and resulted in unevenness of power in the application of the brake-shoes to the wheels. It is my object to overcome these objections by the application of a simple device and at the same time to increase
50 the power which is applied by hand.

Coming now to the present invention, the numeral 10 designates a casing having ears

11, by which it is secured, preferably, beneath the platform at the end of the car. Within one end of this casing is journaled an up-
55 right shaft 12, having a crank-handle or wheel 13 at its upper extremity, by means of which the motorman turns the shaft. The latter may, and preferably does, have the usual ratchet-wheel, which is engaged by a pawl to
60 prevent retrograde movement; but these features are not shown, as they form no part of the present invention. Fixed on the shaft within the casing 10 is a small gear-wheel 14, which meshes with a larger gear-wheel 15,
65 fixed on another upright shaft 16, also journaled in the casing, as best seen in Fig. III. This shaft is short, and it carries a toothed wheel 17, the latter being preferably arranged below the gear-wheel 15, as shown. 70

20 is a guide projecting from the casing and of a size and shape interiorly to permit longitudinal movement of a rack-bar 21, whose teeth engage the toothed wheel 17, and above and below these teeth are preferably located
75 flanges 22, integral with the rack-bar and filling out its contour, so that it may slide within the guide, these flanges moving above and below the teeth of the wheel 17, as best seen in Fig. III. The outer extremity of the bar
80 21 has an eye 23, to which is attached a chain 24, and the latter leads to the brake-beam 4, as best seen in Fig. I, possibly through a brake-rod 25.

In operation the motorman turns the handle or wheel 13 and with it the shaft 12 and small gear 14. The latter turns the large gear 15 and with it the shaft 16 and the toothed wheel 17, and the rotation of the latter causes the rack-bar to be moved in the
85 proper direction to draw on the chain and apply the brakes. 90

All parts are of the desired sizes, shapes, proportions, and material, although the latter is preferably metal throughout, except-
95 ing, possibly, the handpiece on the crank 13.

I do not limit myself to the details of construction other than as described below.

What is claimed as new is—

In a car-brake, the combination with the
100 brake-shoes mounted on a movable brake-beam; of a casing carried by the car and having a guide, an upright shaft journaled in the casing and having a crank-handle at its upper end,

a second shaft journaled in said casing, inter-
meshing gears fixed on said shafts, a toothed
wheel fixed on the second shaft, a rack-bar
having flanges above and below its teeth and
5 sliding bodily in said guide while its teeth
engage said toothed wheel, and a chain con-
necting said rack-bar and brake-beam.

In testimony whereof I have hereunto sub-
scribed my signature this the 8th day of May,
A. D. 1902.

AMEL BROLUSKA.

Witnesses:

JNO. H. RUSSELL,
J. H. DOUGHERTY.