

943,714.

W. F. SWEET.
ADVERTISING DEVICE.
APPLICATION FILED DEC. 5, 1908.

Patented Dec. 21, 1909.

3 SHEETS—SHEET 1.

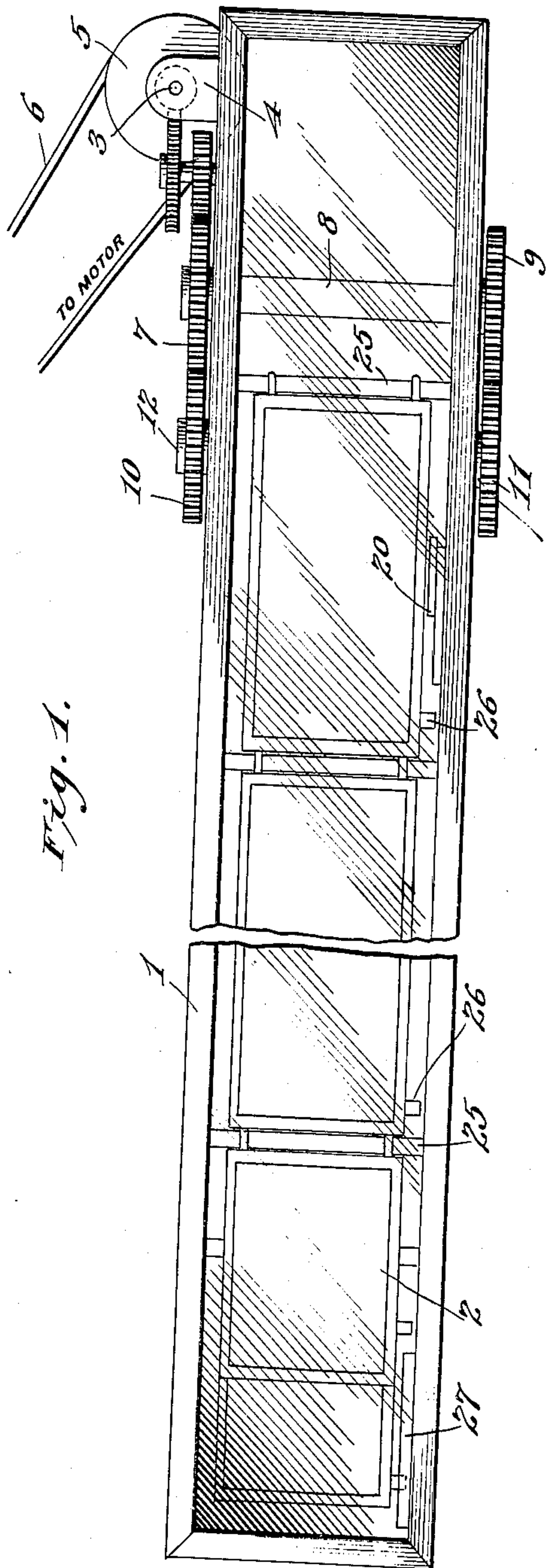


Fig. 1.

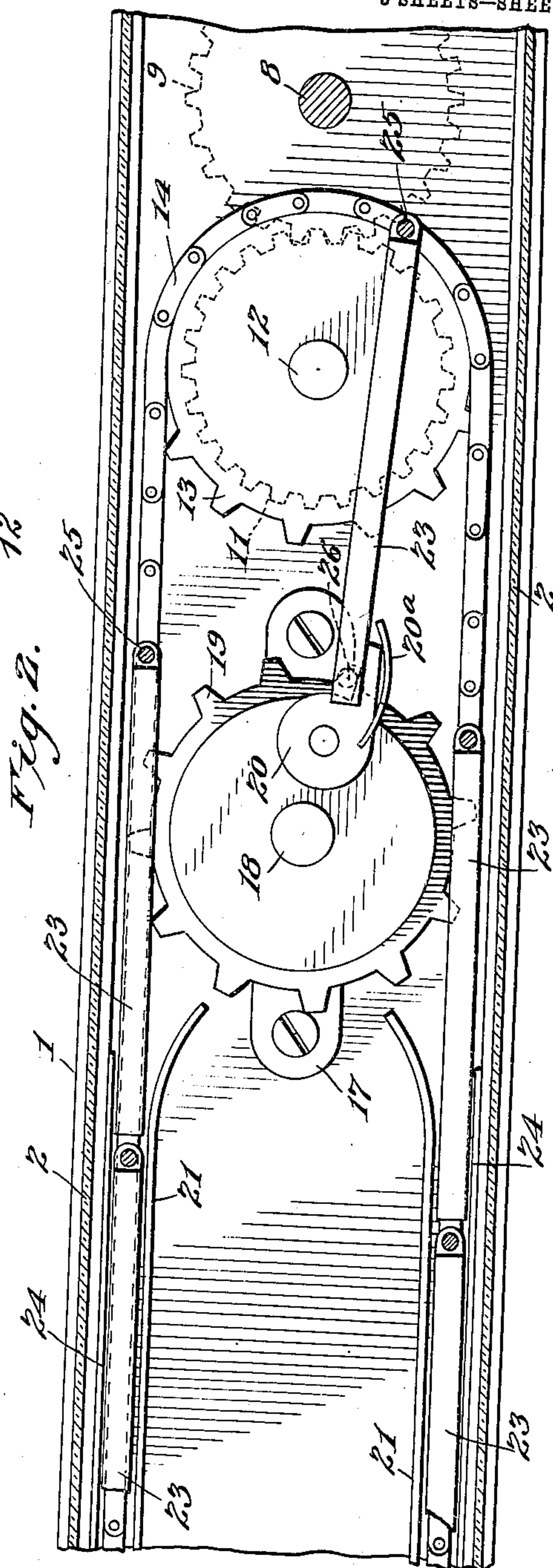


Fig. 2.

Witnesses

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3 SHEETS—SHEET 2.

Fig. 3.

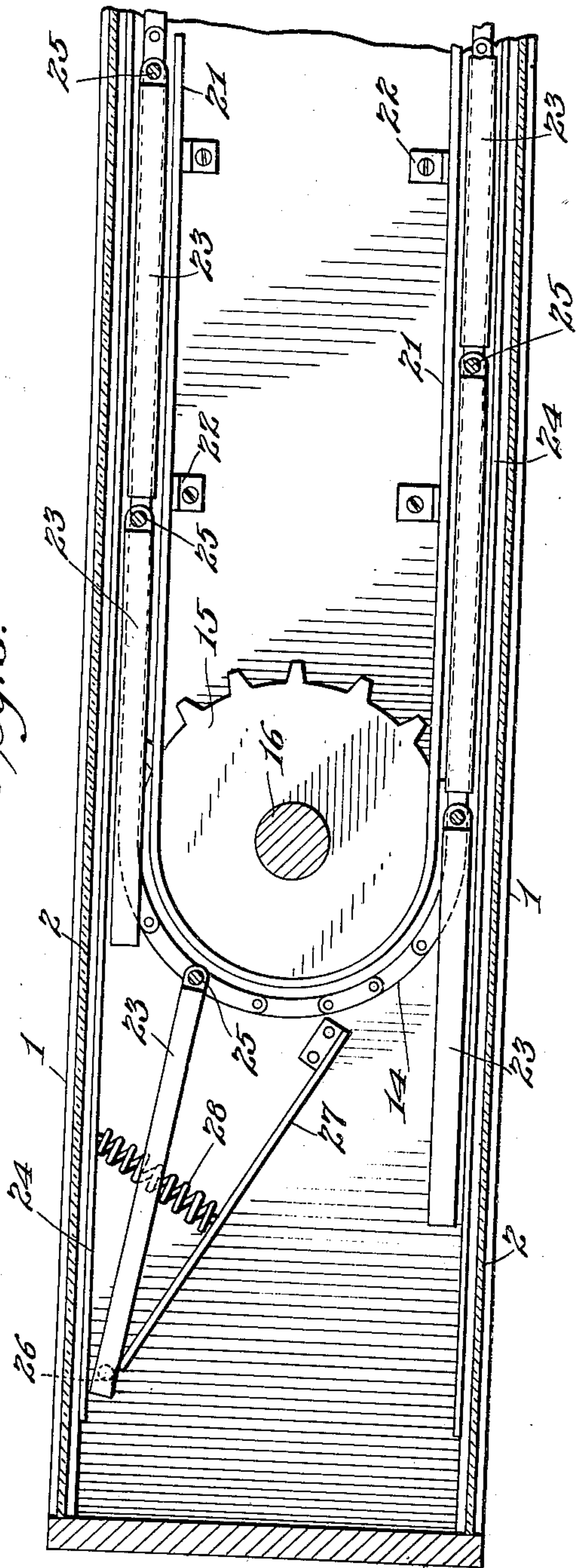
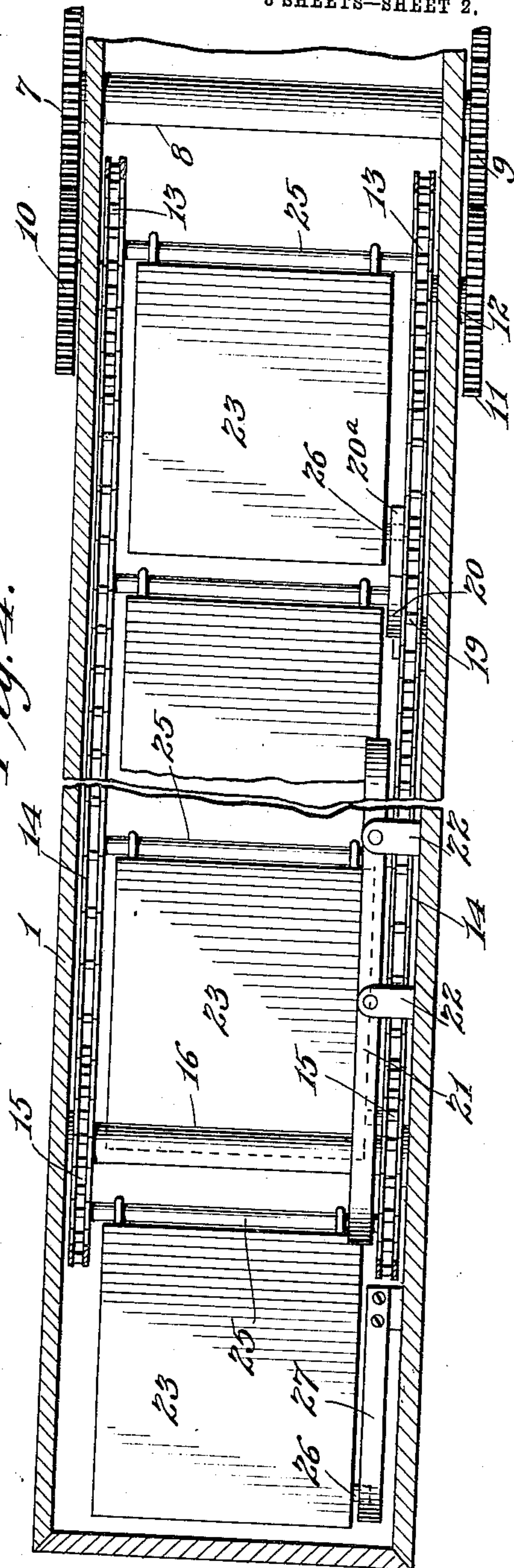


Fig. 4.



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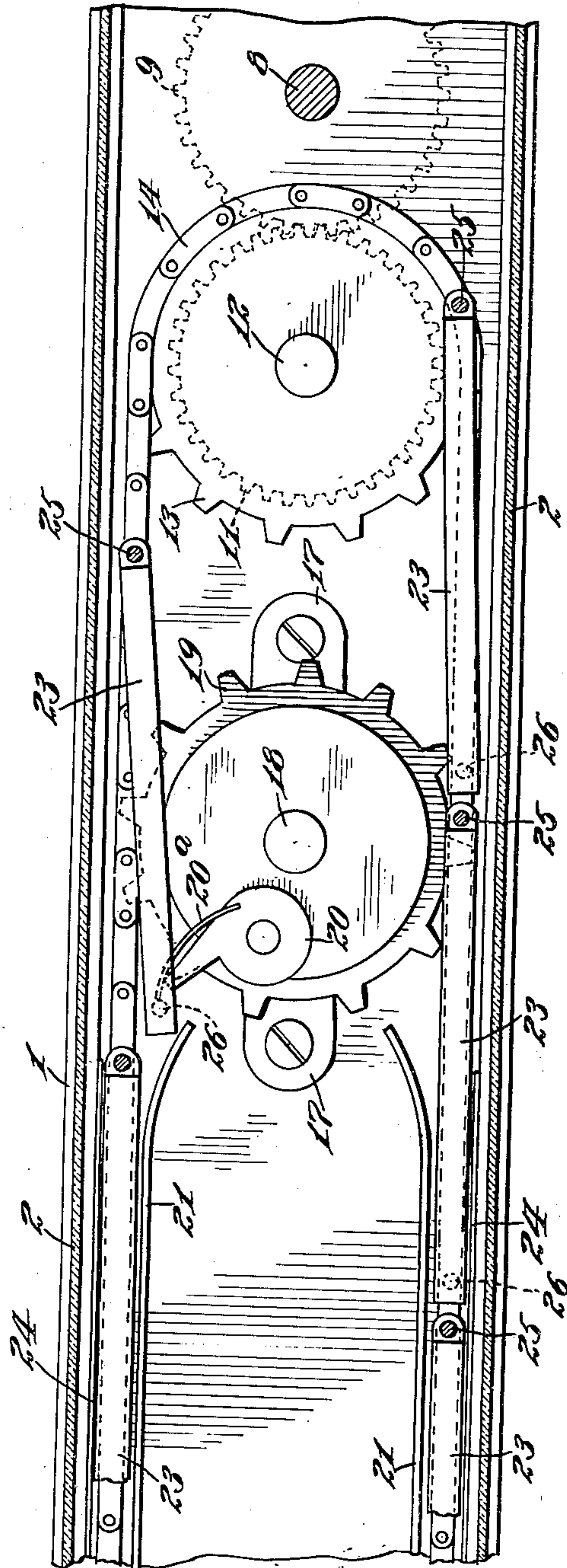
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3 SHEETS—SHEET 3.

Fig. 5.



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UNITED STATES PATENT OFFICE.

WELCOME F. SWEET, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO BARCLAY JOHNSON, OF PHILADELPHIA, PENNSYLVANIA.

ADVERTISING DEVICE.

943,714.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed December 5, 1908. Serial No. 466,058.

To all whom it may concern:

Be it known that I, WELCOME F. SWEET, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Advertising Devices, of which the following is a specification.

My invention relates to improvements in advertising devices, and more particularly to an endless chain of movable signs, moving continuously in one direction, new signs appearing at one end of the device and signs disappearing at the other end of the device.

A further object is to provide improvements of this character, which are especially designed for use in street cars to take the place of the ordinary fixed cards now in use.

A further object is to provide improved parallel tracks or passage-ways for the signs, and improved means for shifting the signs at the ends of the device from one track or passage to the other.

With these and other objects in view the invention consists in certain novel features of construction, and combinations, and arrangement of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1, is a broken view in elevation illustrating my improvements. Fig. 2, is an enlarged view in horizontal section of the right hand end of the device. Fig. 3, is a similar view of the opposite end of the device, and Fig. 4, is a view in vertical longitudinal section taken at right angles to Fig. 3. Fig. 5, is a view similar to Fig. 2, but showing the parts in slightly advanced positions.

1 represents an elongated rectangular casing, preferably having transparent sides 2, one of these sides may of course be opaque if desired. A shaft 3 is supported in a bracket 4 on top of the casing 1, at one end of the latter, and is provided with a pulley 5, driven by a belt 6, from any source of power. This shaft 3 transmits motion to a train of gearing 7, one of said gears connected by a shaft 8 with the gear 9 on the bottom of the casing, and this chain of gears 7 and the gear 9 transmit motion to gears 10 and 11 at the top and bottom of the casing respectively, so as to turn said gears 10 and 11 in the same direction, and at the same speed.

The gears 10 and 11 are provided with short shafts 12 projecting through the top and bottom respectively of casing 1, and having secured thereon inside of the casing sprocket wheels 13 around which endless sprocket chains 14 travel. These sprocket chains 14 at the other end of the casing travel over idle sprocket wheels 15, secured upon a rotary shaft 16, the latter mounted in the top and bottom of casing 1.

A bracket 17 is secured to the casing bottom and provided with a stud 18 on which a sprocket wheel 19 is mounted. This sprocket wheel 19 is revolved by the lower chain 14, and is provided with a dog 20 and a frail spring 20^a, secured to the dog for a purpose which will hereinafter appear.

To provide a track or passage-way through which the lower sprocket chain 14 moves, a rail 21 is secured on angle brackets 22 and extends from a point near sprocket wheel 19 throughout a greater portion of the length of the casing, and around the sprocket wheel 15. This rail, it will be noted, is supported at an elevation above the casing bottom, and at its ends adjacent to sprocket wheel 19 is bent inwardly, the inwardly bent portion at the rear of the casing, constituting a guide to direct my improved signs 23 into the passage-way formed between this rail 21 and a similar rail 24, located near the outer edge of the casing. A second rail 24 is located at the front as shown in Figs. 2 and 3.

My improved signs 23 may be made in a great many ways, but preferably made with transparent walls and constructed to receive an advertising card, and support the latter rigidly in position. These signs which are located in single file, one behind the other, are pivotally connected at their forward ends to posts 25. These posts 25 are secured to the upper and lower sprocket chains 14 and the signs can swing laterally on the posts when permitted to do so by the rails 21 and 24.

Every sign at its rear end is made with a depending pin 26, and these pins are in the path of movement of the dog 20 on sprocket wheel 19. Hence when a sign reaches the right hand end of the casing and its post 25 begins to move rearward around sprocket wheels 13, the dog 20 will have engaged the pin 26 of this sign 23 and move the free end of the sign rearwardly, substantially in con-

formity with the rearward movement of the post or forward end, and move the sign backward in comparatively a straight line to a point in rear of sprocket wheels 19 when the dog 20 will ride off of pin 26, and the frail spring 20^a will engage the pin, long enough to prevent any possibility of the sign being carried forward, and insure the sign being directed into the passage-way between the rails 21 and 24, to properly start its retrograde movement.

At the left hand end of the casing, a spring bar 27 is secured at one end, to the casing bottom, and bears at its free end against the outer rail 24 at the rear. To assist this spring bar 27 and insure its elasticity a coil spring 28 is employed. As the signs 23 reach the extreme left hand end of the casing, the pin 26 on the sign will engage the spring bar 27 and force it outwardly as shown in Fig. 3. As the post on the sign is brought around by the sprocket chain, the sign will be projected far enough to the left for the pin 26 to escape the spring 27 and the latter will spring back against the rail 24 and permit the pin to be guided forwardly by the spring bar 27. As the post end of a sign moves to the front, the cam action of the curved portion of rail 21 against the sign will cause the sign to swing to a straight line parallel with the casing front and properly present its advertising matter when it assumes a position at the rear end of the advancing line of signs.

With a construction of this kind, a new sign is always presenting itself at one end of the line, while a sign which has traveled throughout the length of the casing is disappearing from the other end of the casing to begin its retrograde movement. The signs move backward and forward at the respective ends of the casing with their advertising matter in view, until the sign entirely disappears behind the row of signs in the front.

While my improvements are especially designed for use in street cars, they are in no wise limited to such a use, and might be employed in stores, windows, or in any other place desired.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the character described, the combination with an endless conveyer, of a series of signs one behind the other and pivotally connected at their forward ends to said conveyer, and means for engaging the rear ends of said signs to move them rearwardly simultaneously with the rearward movement of the forward ends of the signs by the conveyer.

2. In a device of the character described, the combination with sprocket wheels and an endless chain around said sprocket wheels,

of a series of signs disposed one behind the other and pivotally connected at their forward ends to the sprocket chain, a sprocket wheel driven by said sprocket chain, and a dog on the sprocket wheel adapted to engage the rear ends of the signs and move them rearward simultaneously with the rearward movement of the forward ends of the signs by the sprocket chain.

3. In a device of the character described, the combination with sprocket wheels and an endless sprocket chain mounted to turn on said sprocket wheels, of a series of upright posts secured on said sprocket chain, signs pivotally connected at their forward ends to the posts, depending pins on said signs at their rear ends, a sprocket wheel driven by said chain and located adjacent to one of the first mentioned sprocket wheels, a dog on said last mentioned sprocket wheel movable in the arc of a circle and in the path of said pins on the signs to move the rear ends of the signs rearward simultaneously with the rearward movement of the post end of the signs as the posts pass around the sprocket wheel.

4. In a device of the character described, the combination with endless sprocket chains located one above the other, and means for driving said chains simultaneously in the same direction, upright posts connecting said chains, of signs pivotally secured at their forward ends to said posts, depending pins on the rear ends of said signs, a sprocket wheel driven by the lower of said chains, a dog on said sprocket wheel adapted to engage the pins and move the signs rearwardly as the forward ends of the signs are moved rearwardly by the sprocket chains.

5. In a device of the character described, the combination with a casing, endless sprocket chains supported in the top and bottom of said casing and located one above the other, posts connecting said sprocket chains, and means for moving said chains, of signs pivotally connected at their forward ends to said posts, depending pins on the rear ends of said signs, means at one end of the casing for engaging said pins to move the rear ends of the signs rearwardly simultaneously with the rearward movement of the forward ends of the signs, and means at the other end of the casing for guiding the pin-end of the sign forwardly as the post ends are moved forwardly.

6. In a device of the character described, the combination with an elongated casing, sprocket wheels secured to the casing near the respective ends thereof, sprocket chains around said wheels located one above the other, posts connecting said sprocket chains, and means for driving said sprocket wheels, of a series of signs pivotally connected at their forward ends to said posts and located one behind the other, a sprocket wheel lo-

cated near one end of the casing and turned by one of said sprocket chains, a dog on said sprocket wheel, depending pins on all of said signs adapted to be engaged by said dog to move the rear ends of the signs rearwardly simultaneously with the rearward movement of the forward ends of the signs, and a frail spring on said dog adapted to engage the pins for a short time after disengagement of the dog to start the pin-ends of the signs properly in their retrograde movement.

7. In a device of the character described, the combination with a casing, rails secured in said casing and constituting a passage-way at the front and rear of the casing, of an endless sprocket chain movable throughout this passage-way, upright posts on said chain, signs pivotally secured to said posts, depending pins on said signs, a sprocket wheel driven by said chain, a dog on the sprocket wheel adapted to engage the pins and move the pin-end of the signs rearwardly simultaneously with the rearward movement of the post end of the signs, a frail spring on said dog adapted to engage the pins on the signs after the dog leaves the pins and direct the pin-end of the sign into the said passage.

8. In a device of the character described, the combination with a casing, an endless sprocket chain in said casing, of upright posts on the sprocket chain, signs pivotally connected at their forward ends to said posts, pins on said signs, sprocket wheels located near the respective ends of the casing and around which said sprocket chain passes, means near one of said sprocket wheels to engage the pins and move the ends of the signs rearwardly as their forward ends are moved rearwardly, so as to reverse the direction of movement of the signs at the rear of the casing, a spring bar secured to the casing and located at the other end of the casing and in the path of the pins, said bar adapted to be forced outwardly by the advancing pins and spring behind the pins and guide the advancing movement of the signs as they move from rear to front.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WELCOME F. SWEET.

Witnesses:

J. A. L. MULHALL,
R. H. KRENKEL.