F. W. REMER.

ADVERTISING MACHINE.

APPLICATION FILED SEPT. 14, 1908.

931,218.

Patented Aug. 17, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

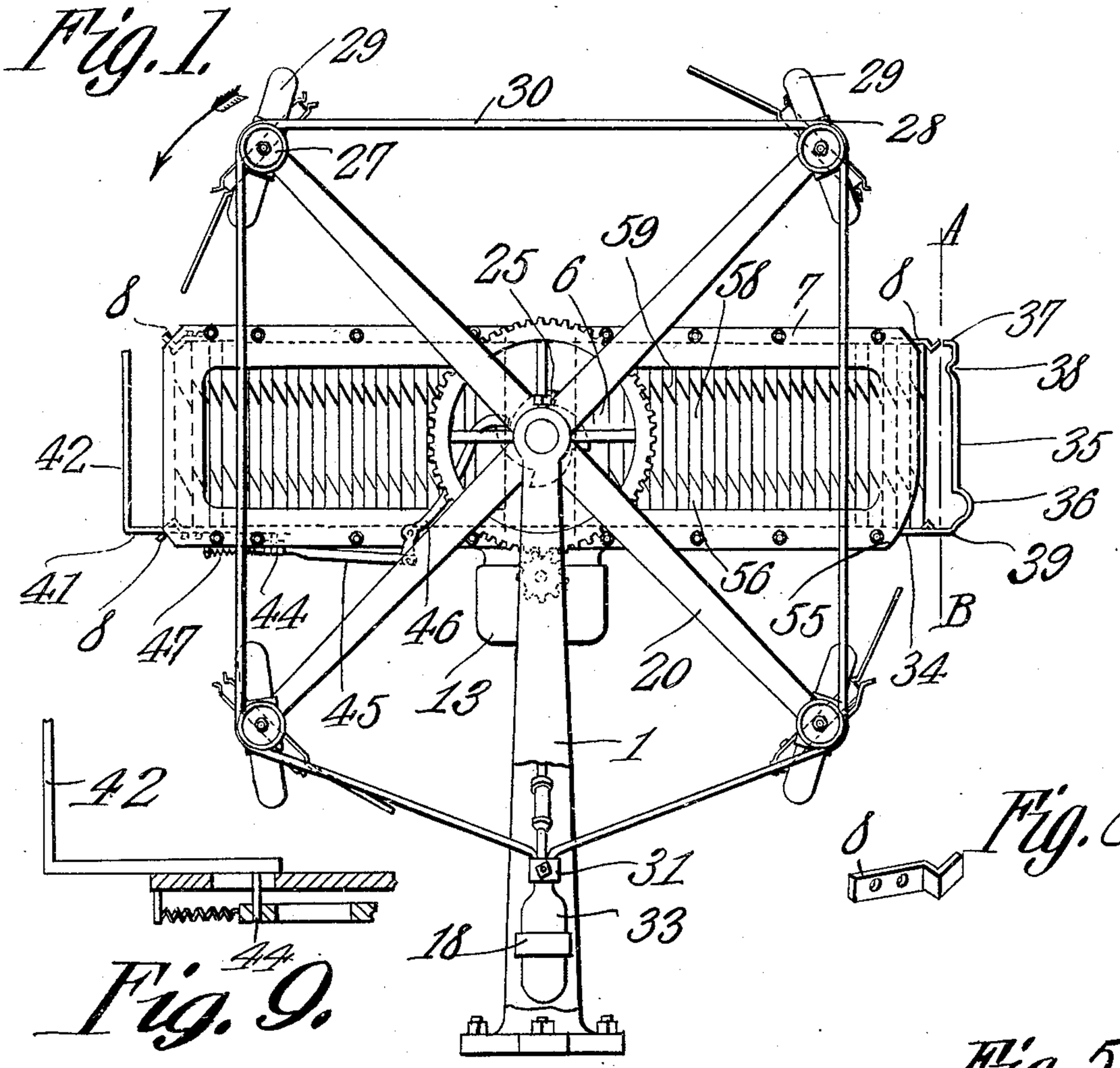


Fig. 8.

Fig. 9.

Fig. 3.

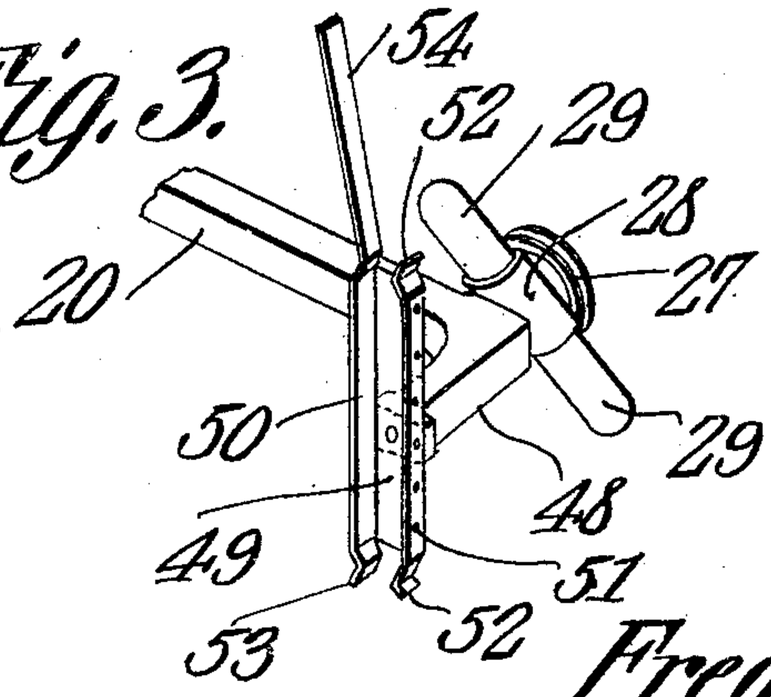


Fig. 6.

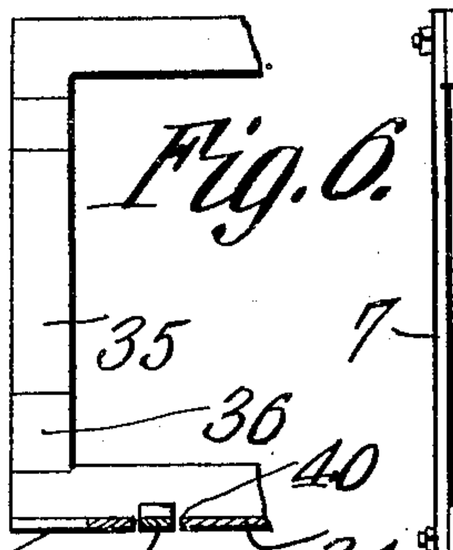
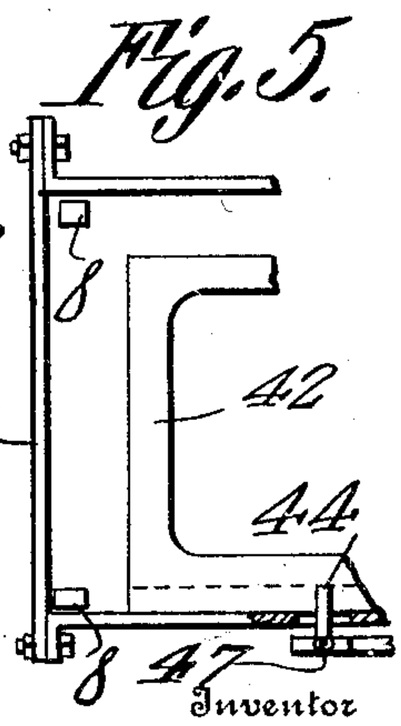


Fig. 5.



Witnesses

E. F. Stewart

Herbert D. Lawson.

Inventor

Fredrick W. Remer.

By Church & Co.

Attorneys

F. W. REMER.

ADVERTISING MACHINE.

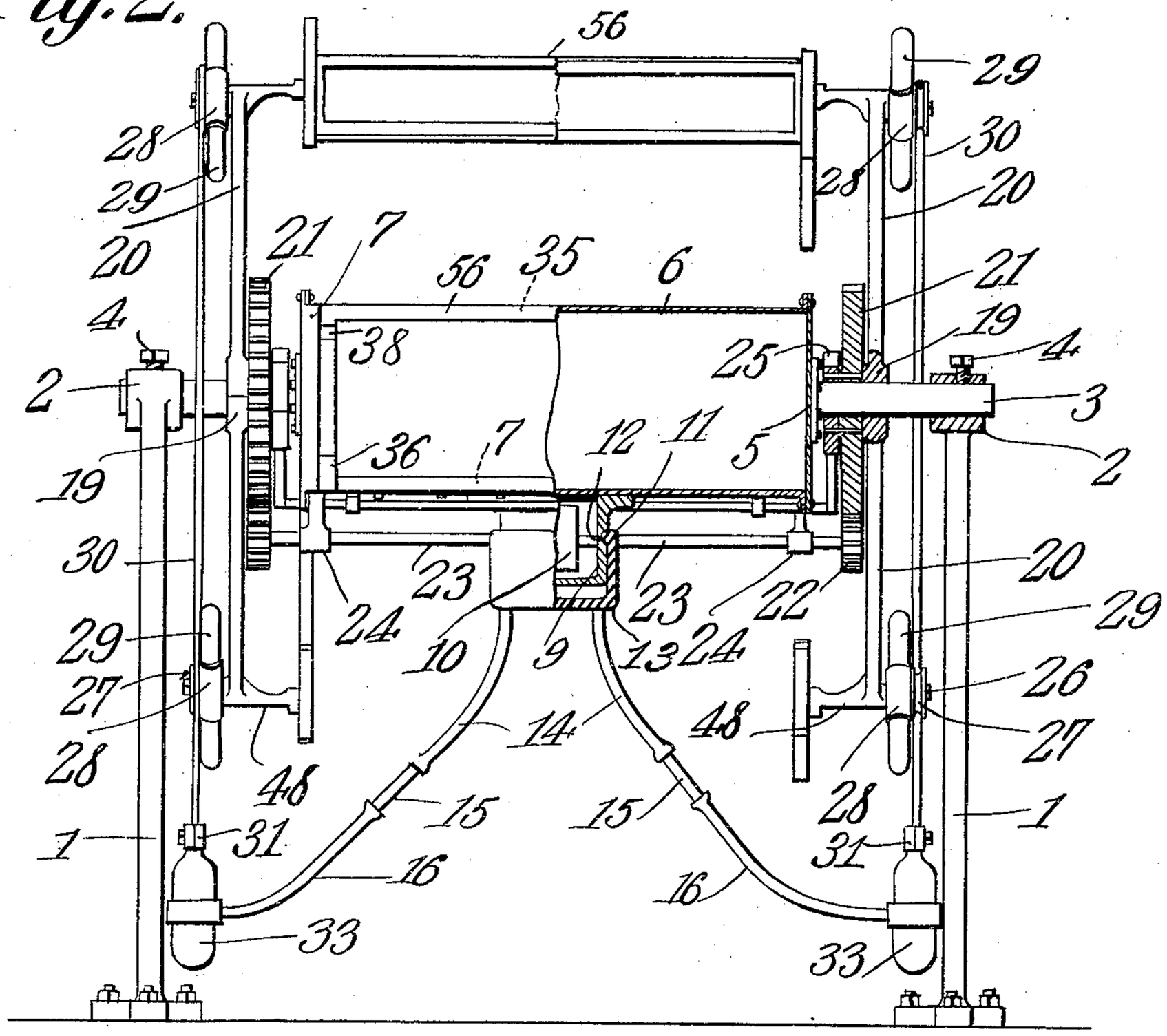
APPLICATION FILED SEPT. 14, 1908.

931,218.

Patented Aug. 17, 1909.

2 SHEETS—SHEET 2.

Fig. 2.



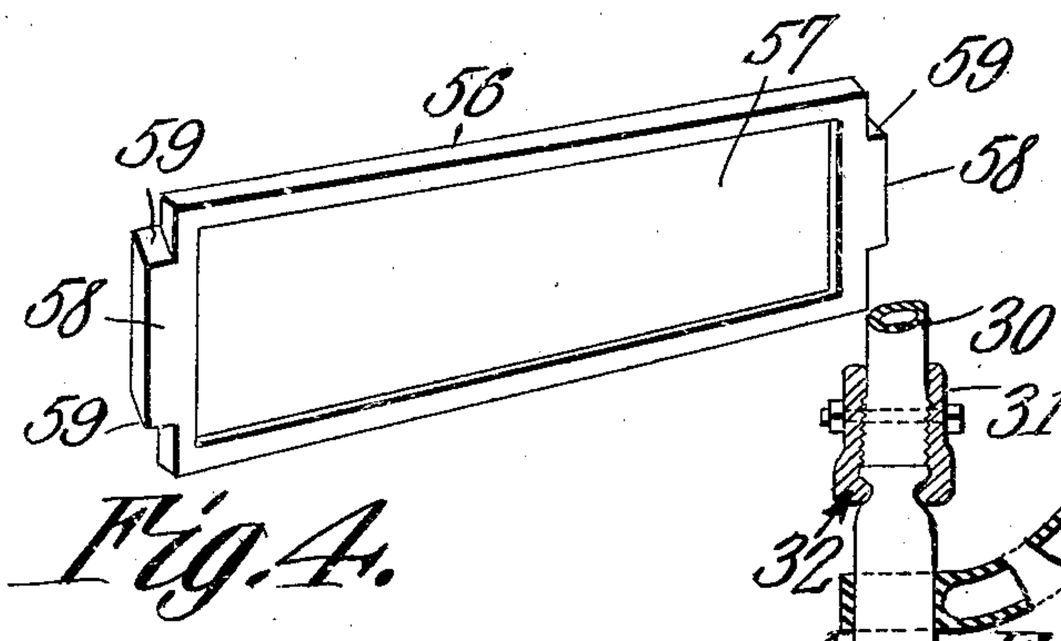


Fig. 4.

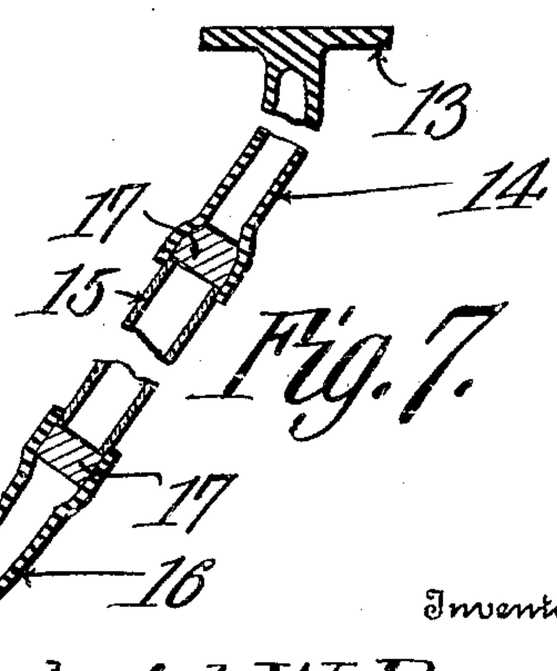


Fig. 7.

Witnesses

E. F. Stewart

Herbert D. Lawson

Inventor

Fredrick W. Remer.

By Church & Co.

Attorneys

UNITED STATES PATENT OFFICE.

FREDRICK WILLIAM REMER, OF LAWTON, OKLAHOMA.

ADVERTISING-MACHINE.

No. 931,218. Specification of Letters Patent. Patented Aug. 17, 1909.

Application filed September 14, 1908. Serial No. 453,024.

To all whom it may concern:

Be it known that I, FREDRICK W. REMER, a citizen of the United States, residing at Lawton, in the county of Comanche and State of Oklahoma, have invented a new and useful Advertising-Machine, of which the following is a specification.

This invention relates to advertising machines and its object is to provide a device of this character, having a magazine designed to contain a number of advertising cards or plates, there being means whereby said cards or plates can be successively brought into position for display.

Another object is to provide a series of advertisement holders, each holder being reversible by the machine and designed to contain two advertisements, the machine being disposed first to display the advertisements upon one side of the frame and then display those advertisements upon the other side of the frame.

A still further object is to provide a machine which is attractive in appearance, and which has its propelling means concealed from view.

A still further object is to provide the machine with means serving not only to enhance the appearance of the machine, but also to mislead the onlookers as to the means employed for propelling the machine.

Another object is to provide simple and efficient means for successively withdrawing the advertising frames or holders from the magazine in which they are displayed, and for conveying said holders to the feed end of the magazine, after the holders have been reversed.

A still further object is to provide mechanism for feeding the holders or frames longitudinally of the magazine, so that they will be successively positioned at the display end of the magazine, where they can be engaged and removed by the carriers.

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

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of the complete machine, the near standard or pedestal being broken away. Fig. 2 is a view partly in elevation and partly in transverse section, said elevation showing the front portion of the machine. Fig. 3 is a perspective view of one of the heads of the carrier. Fig. 4 is a perspective view of one of the holding frames. Fig. 5 is a rear elevation of a portion of the magazine and of the stop device, extending therebeyond. Fig. 6 is an enlarged section on line "A—B" Fig. 1, and showing a portion of the extension or holding frame of the magazine. Fig. 7 is an enlarged section through portions of one of the pendent tubes of the machine. Fig. 8 is a detail view of one of the retaining clips. Fig. 9 is a longitudinal section through the feed end of the machine and showing the slide and the pin and arm connected thereto.

Referring to the figures by characters of reference, 1, 1, designate standards having bearings 2 in their upper ends, and in which are secured trunnions 3, these trunnions being held fixedly in position by means of set screws 4, or in any other preferred manner. Heads 5, are formed at the inner ends of the trunnions and are riveted or otherwise secured to the end portions of a body 6, preferably in the form of a hollow prism, constructed of sheet metal or any other suitable material. The front and rear faces of this body are open, and extending from the body in opposite directions and beyond these open faces are guide frames 7, also preferably formed of sheet metal. The space within each of these guide frames is preferably of the same transverse area as the space within the body 6, so that any object placed within one of the guide frames will be free to slide throughout the length of the two frames and through the body 6. The guide frames 7 are preferably disposed substantially at right angles to the standard 1, and secured to the tops and bottoms of these guide frames at their outer ends are spring retaining clips 8, one of which has been illustrated in detail in Fig. 8. A housing 9 extends downward from and is supported by the body 6, and this housing is designed to contain a suitable spring or electric motor 10. The housing is provided in the upper portion of its outer surface with a groove 11, extending thereabout, and designed to receive an inwardly extending bead or enlargement 12, formed upon the inner surface of a jacket 13, preferably composed of soft rubber, and so shaped as to fit snugly upon and conceal the greater portion of the housing 9. Hollow rubber tubes 14 extend downward from this jacket

and engage the upper ends of glass tubes 15, the lower ends of which are engaged by hollow rubber tubes 16. The ends of each glass tube 15 are closed by means of corks 17, or in any other suitable manner, and said glass tubes are designed to contain mercury. The lower ends of the tubes 16 are closed and provided with integral rubber bands 18. These bands are for the purpose hereinafter set forth.

Mounted to rotate upon each fixed trunnion 3 is a hub 19, having arms 20 radiating therefrom. Any desired number of these arms may be provided upon each hub, and in the drawings four of them have been shown. Each hub has a gear 21 secured to it, so as to rotate therewith, and each of these gears meshes with a smaller gear 22, secured to one end of a drive shaft 23. Said shaft extends through the housing 9, and is designed to be driven by the motor 10. Suitable bearings, such as indicated at 24, extend outward from the body 6, and the shaft 23 is mounted within them. A cam 25 is mounted to rotate upon each trunnion 3, and each of these cams is secured to one of the gears 21, so as to rotate with it.

Extending outwardly from the free end of each arm 20 is a stud 26, on which is mounted a grooved wheel 27. An extension 28 extends diametrically upon one face of this wheel, and has bulbs 29, screwed or otherwise secured within the ends thereof, said bulbs being designed to contain mercury, and being preferably constructed of glass. A belt 30 is carried by the wheels 27 at each side of the machine, and the ends of each belt are clamped between plates 31, the inner or gripping faces of which are preferably roughened, as shown in Fig. 7. These plates are held together by means of bolts or any other suitable means, and the lower portions of the plates constitute jaws, as indicated at 32, said jaws engaging the upper end of a bulb 33, surrounded, adjacent its center, by one of the bands 18, heretofore referred to. The bulb 33, which is designed to hold mercury, constitutes a weight for holding the belt 30 practically stationary during the rotation of the arms 20. It will be obvious therefore that while these arms are rotating, the wheels 27 will be caused to travel along the stationary belt 30, and will therefore be rotated thereby, this movement causing a corresponding rotation of the bulbs 29. A very attractive effect is thus produced, and the arrangement of tubes and bulbs employed will lead the observer to believe that they play some important part in the operation of the machine. The rotating mercury contained in the bulbs 29 will reflect the light rays and, obviously, quickly attract attention to the machine, especially at night.

Extending beyond the discharge or display end of the machine and integral and flush with the bottom of one of the guide frames 7 is the bottom portion 34 of an extension frame 35. This extension frame extends preferably practically the full width of the guide frame, and the upstanding portion thereof is spaced a desired distance from the front end of the guide frame 7. Extension frame 35 is provided with a large opening therein, through which the advertisement-carrying frames, hereinafter referred to, are visible. The entire extension frame is formed of spring metal, and, in order that the upstanding portion of the frame may freely swing outwardly away from the guide frames 7, a crimp or rounded portion 36 is formed within the frame 35, close to the bottom 34 thereof. An inwardly extending flange 37 is formed at the upper end of the frame 35, and normally contacts with the free ends of the adjoining upper clips 8. This arrangement of parts is clearly indicated in Fig. 1. Projections 38 are struck inwardly from the upper portion of the frame 35 and close to the flange 37, and these projections are disposed in vertical alinement with openings 39, formed within the bottom 34, at the sides thereof. The lower clips 8 at this end of the machine project through openings 40 formed within the bottom 34.

Mounted within the rear or feed end of the machine is a slide 41, having one end portion normally projecting beyond the end of the rear guide frame 7. The outer end of this slide is of less width than the guide frame 7, and constitutes a stop, as will be hereinafter set forth. A retaining frame 42 extends perpendicularly from the outer end of the slide, and is normally spaced from the rear guide frame 7 a distance slightly greater than the thickness of the advertising frame or holder, hereinafter referred to. A longitudinal slot 43, is formed in the bottom of the rear guide frame 7. This slot receives a pin 44, extending downwardly from the slide 41, and secured to one end of a spring metal arm 45, the other end of which is attached to a bell crank lever 46. This lever is fulcrumed upon one side of the rear guide frame 7 and the upper end of the lever normally rests upon the adjoining cam 25. A spring 47 connects the pin 44 with the rear portion of the guide frame 7, so as to hold the slide 41 normally projected rearwardly a predetermined distance, this rearward movement of the slide being limited by the contact of bell crank lever 46 with the cam 25.

Extending inwardly from, and at right angles to, the free end of each arm 20 is an arm 48, on which is fixedly secured a conveyer head 49. This head is preferably oblong in outline and is provided upon its longitudinal edges with parallel flanges 50

and 51, spaced apart a distance equal to the thickness of the advertisement holder, hereinafter referred to. The flange 51 is provided at each end with a spring clip 52, while the flange 50 has a clip 53 at one end and a spring tongue 54 at its other end. This tongue is straight and disposed at an angle to the flange 50. The tongue is located at the front or advancing end of the conveyer head, and when the arms 20 are rotating, as hereinbefore described, said tongues are designed to successively move into contact with the rounded lower corners of the front guide frames 7, said rounded corners being indicated at 55. It is of course to be understood that the arms 20 at the two sides of the machine are disposed directly opposite one another, so that each pair of conveyer heads will simultaneously engage the opposite ends of an advertisement holder. The distance between the heads of each pair is greater than the width of the projecting portion of the slide 41, and is such as to permit said heads to move through the openings 39 in the bottom of frame 35 and back of the side portions of the frame.

The body 6, and the two guide frames 7 constitute a magazine for holding a number of frames or holders 56, one of which has been shown in detail in Fig. 4. Each frame is designed to extend transversely of the magazine and to slide therein, said frame being so constructed as to hold two advertising cards or plates, 57, one being located upon each face thereof. It is of course to be understood that these cards may be detachably secured to the frame in any preferred manner, or, if preferred, the advertising matter can be indicated directly upon the frame. In placing the advertisements upon each frame, it is necessary to have one of them upside-down, so that, by reversing the frame or holder, the rear advertisement which was upside-down will be brought into position where it can be properly read. An extension 58 is formed at each end of each of the frames 56 and the ends of each extension are parallel and beveled, as indicated at 59. These extensions are so positioned that when the front frame is pushed against the front catches 8 the lower beveled ends of the extensions upon the frame or holder will be in position to be engaged by the tongue 54 of the conveyer heads which are moving upwardly toward the frames.

When it is desired to use the machine herein described, the various frames are provided upon their faces with advertisements arranged in the manner hereinbefore described. The frames are then placed within the guide frames 7 and the body 6, constituting the magazine, and will extend from one end to the other thereof, the front frame contacting with the clips 8 at the front of the machine, while the rear frame is contacted by the rear clips 8. Obviously the advertisement upon the exposed face of the front frame can be clearly seen through the extension frame 35. The arms 20 are caused to rotate slowly by means of the mechanism described, and as the conveyer heads upon one pair of arms move upwardly the tongues 54 carried thereby will strike the rounded corners 55 and slide therealong until the tongues are brought into contact with the lower beveled ends 59 of the extensions 58 on the front frame 56. Each lower beveled end 59 will act as a wedge and crowd between the tongues 54 and the upper clip 52 of the conveyer heads, so as to cause the two extensions on the front frame to ultimately become seated within the two conveyer heads. During this operation said heads will pull the frame 56 out of engagement with the clips 8, and the flange 51 will move against the projection 38 and cause the spring frame 35 to swing forward away from the upper clips 8. Sufficient space will thus be formed between flange 37 and the clips 8 to permit the frame carried by the conveyer heads to move upwardly out of position back of the frame 35. As the arms continue to rotate they will conduct the frame 56 to the rear end of the magazine, at the same time reversing the frame, so that the other advertisement thereon will be positioned toward the front of the machine. As the conveyer heads 49 move downward across the rear end of the magazine, the frame 56 carried thereby will be brought into contact with the slide 41, and its downward movement limited thereby. The conveyer heads will continue to move downwardly, and the frame 56 being held stationary will pass outwardly from between the clips 53 and 52. As soon as the conveyer head has completely left the frame 56 the cam 25 will operate to shift the bell crank lever 46, which will pull on the arm 45, and cause the slide 41 to move into the magazine. The upstanding portion 42 of the slide will push the released frame 46 into the magazine and past the retaining strips 8, and immediately subsequent to this operation the cam 25 will release the lever 46 and spring 47 will operate to promptly return the parts to their initial positions. The operation of forcing a frame into the feed end of the magazine also serves to slide all of the frames forward, so that the front one will move into position against the front clips 8. This operation occurs immediately subsequent to the removal of the front frame from the display end of the magazine.

It is of course to be understood that the operation herein described may be continued indefinitely, and the advertisements upon the front faces of the frame 56 will all be displayed successively, after which those of the advertisements upon the other faces of the frames will be successively displayed.

It will be understood therefore that a large number of advertisements can be displayed by a machine which is comparatively small in size, the number of advertisements being double the number of frames employed within the magazine.

Attractiveness is added to the machine by the provision of the rotating bulbs 29, which operate to reflect light rays, and thus attract attenion to the machine. Moreover, the arrangement of tubes, etc., will tend to conceal the real means employed for driving the machine, and the same will have the appearance of a perpetual motion device. This will of course add to the value of the machine as an advertising medium.

What is claimed is:—

1. In an advertising machine a magazine, display devices mounted on edge therein and arranged to slide, revoluble means outside of the magazine for successively removing said devices from one end of the magazine and supplying them to the other end of said magazine, and reciprocating means actuated intermittently by said revoluble means for bodily shifting all of the display devices longitudinally of the magazine during the interval between the removal and the replacing of each display device, and means for limiting the sliding movement of the display devices to maintain one of said devices in the path of the revoluble means.

2. In an advertising machine the combination with a magazine, a spring-controlled extension frame at one end thereof, display devices movably mounted within the magazine and shiftable into the extension frame, and resilient retaining devices at the end of the magazine; of revoluble means for successively engaging the display devices and shifting them into the extension frame and shifting said frame to permit the passage of the display devices out of engagement therewith.

3. In an advertising machine the combination with a magazine, display devices movably mounted therein, and means for intermittently shifting said devices longitudinally of the magazine; of oppositely disposed conveyer heads movably connected to the magazine, each head comprising retaining flanges, an engaging tongue, and retaining clips.

4. An advertising machine comprising a magazine, display devices movably mounted therein, each device having side extensions provided with beveled ends, oppositely disposed conveyer heads movably connected to the magazine, each head having a flexible tongue and retaining devices, said tongue and devices being disposed to engage the side extensions of the display devices, and means for intermittently shifting the said display devices into the paths of the conveyer heads.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FRED. WILLIAM REMER.

Witnesses:
T. J. Davis,
Geo. Strum.