

W. C. CARR.
ADVERTISING DEVICE.
APPLICATION FILED DEC. 5, 1906.

2 SHEETS—SHEET 1.

Fig. 3.

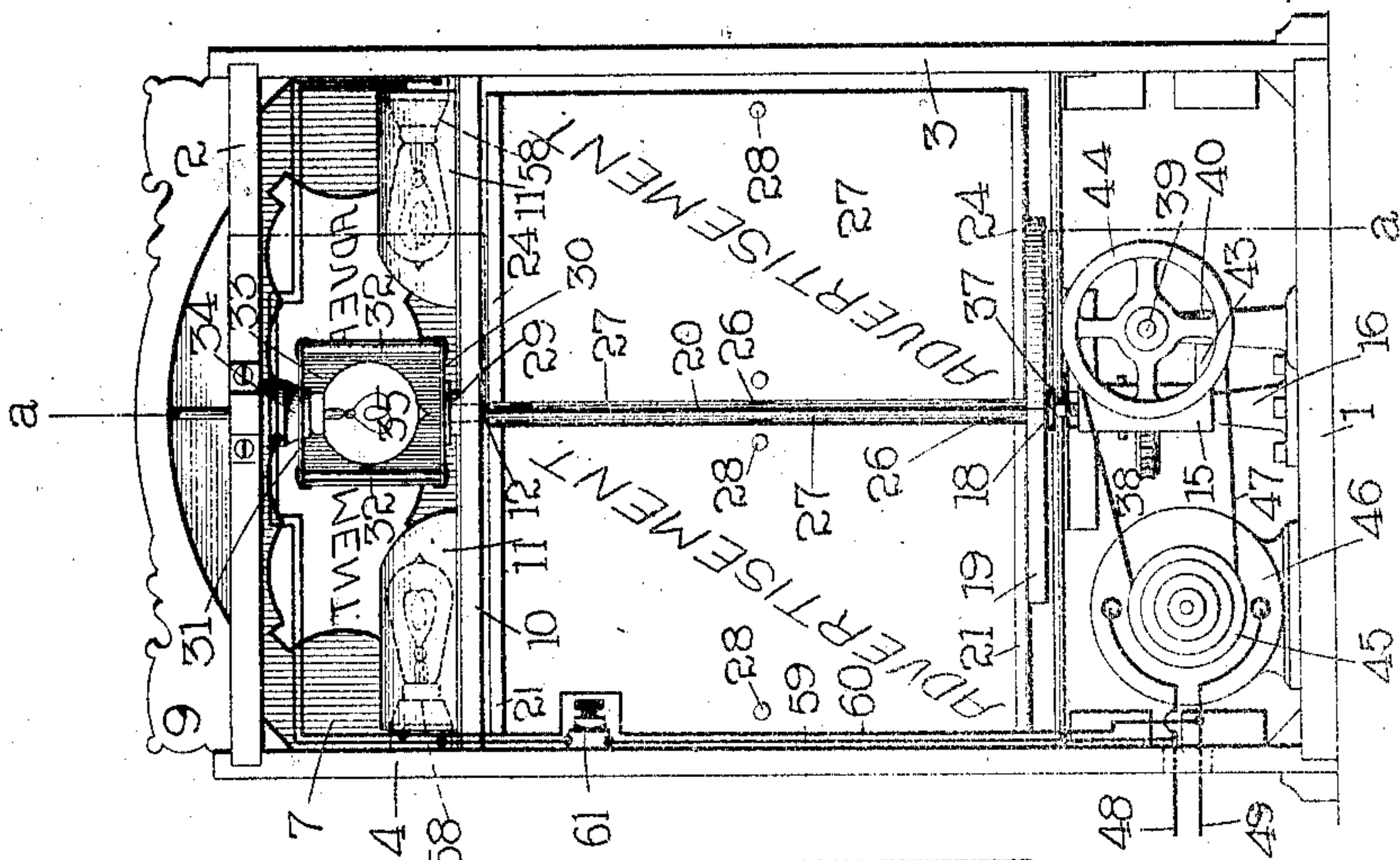


Fig. 2.

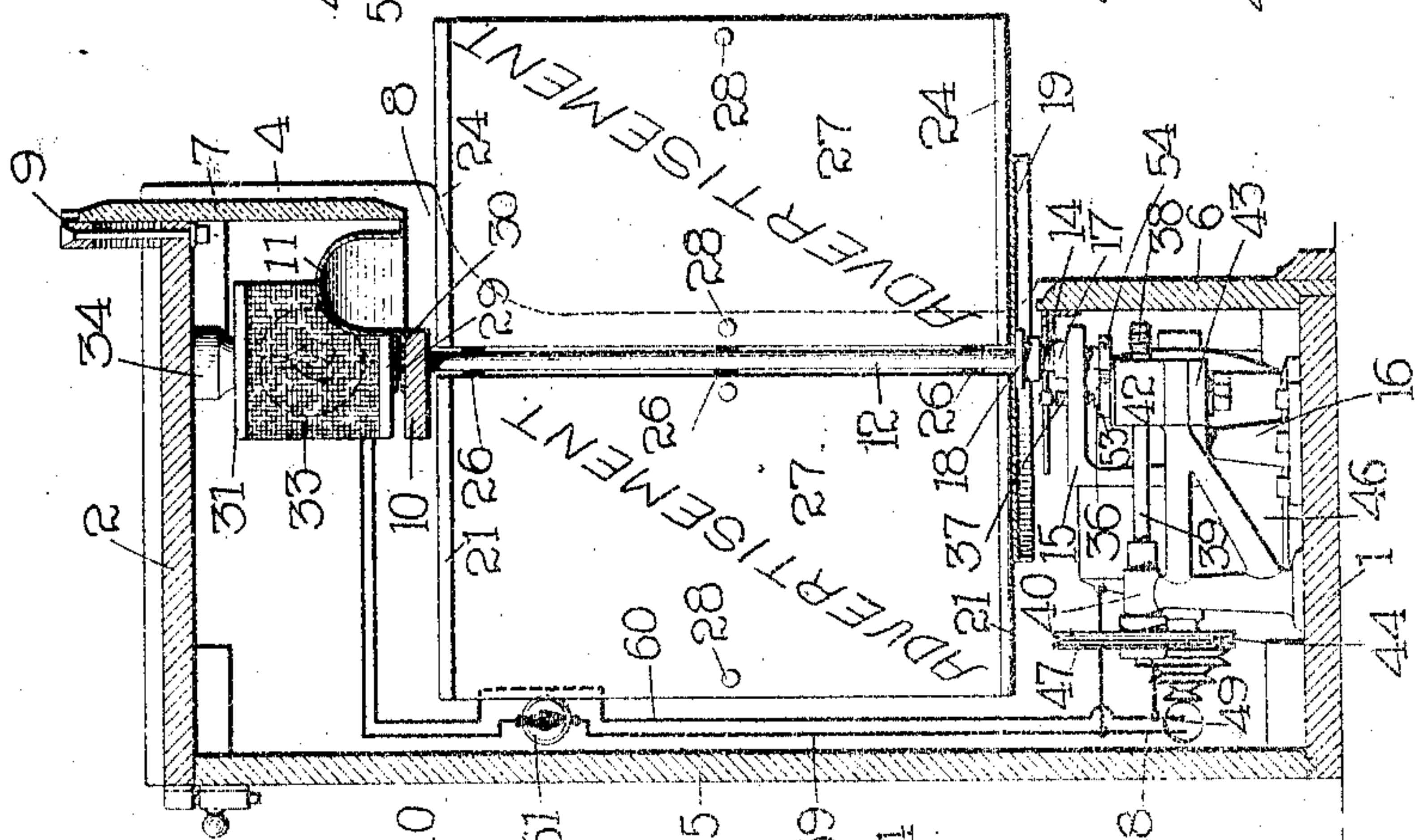
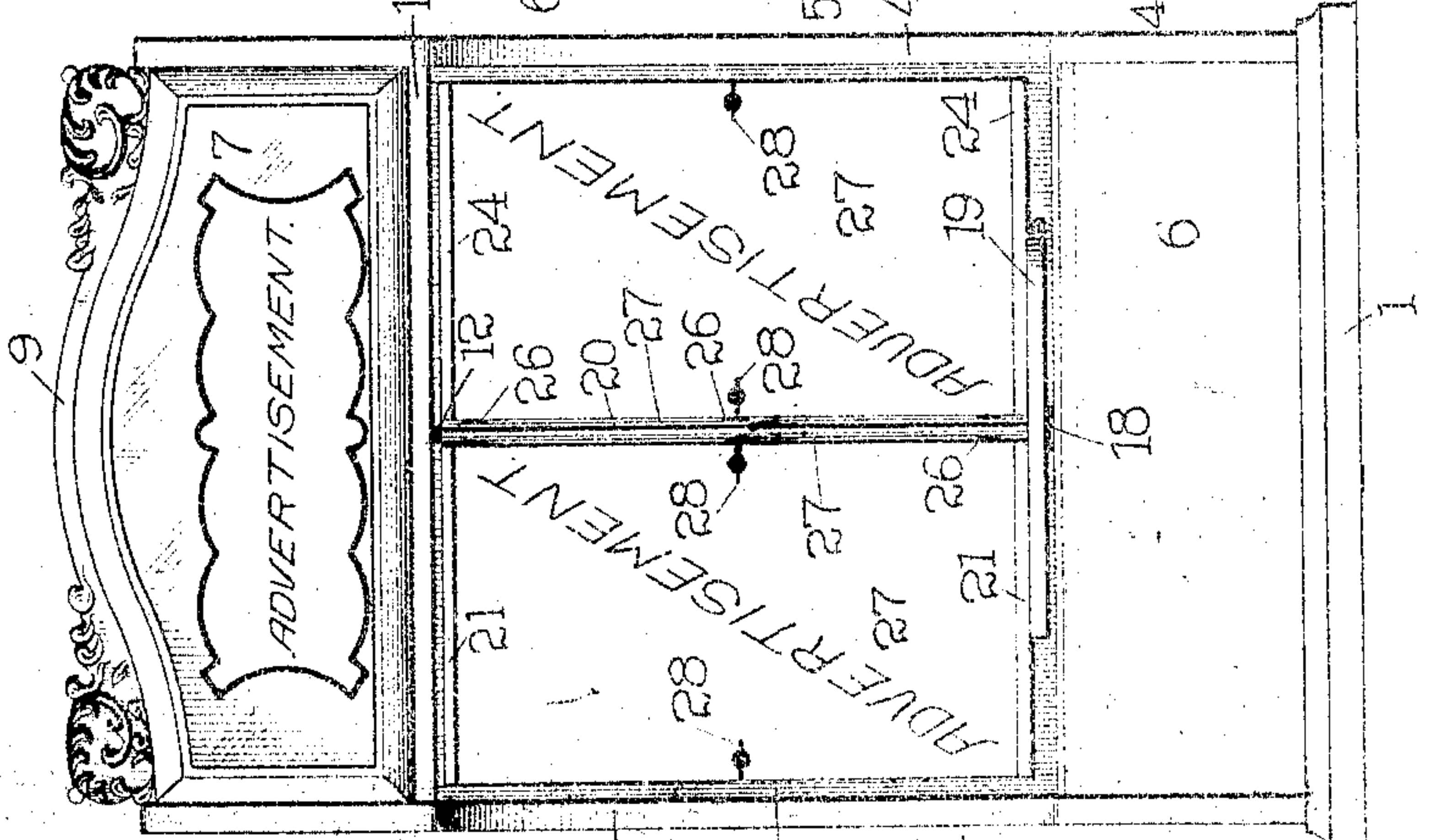


Fig. 1.



Witnesses.

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2 SHEETS—SHEET 2.

Fig. 4.

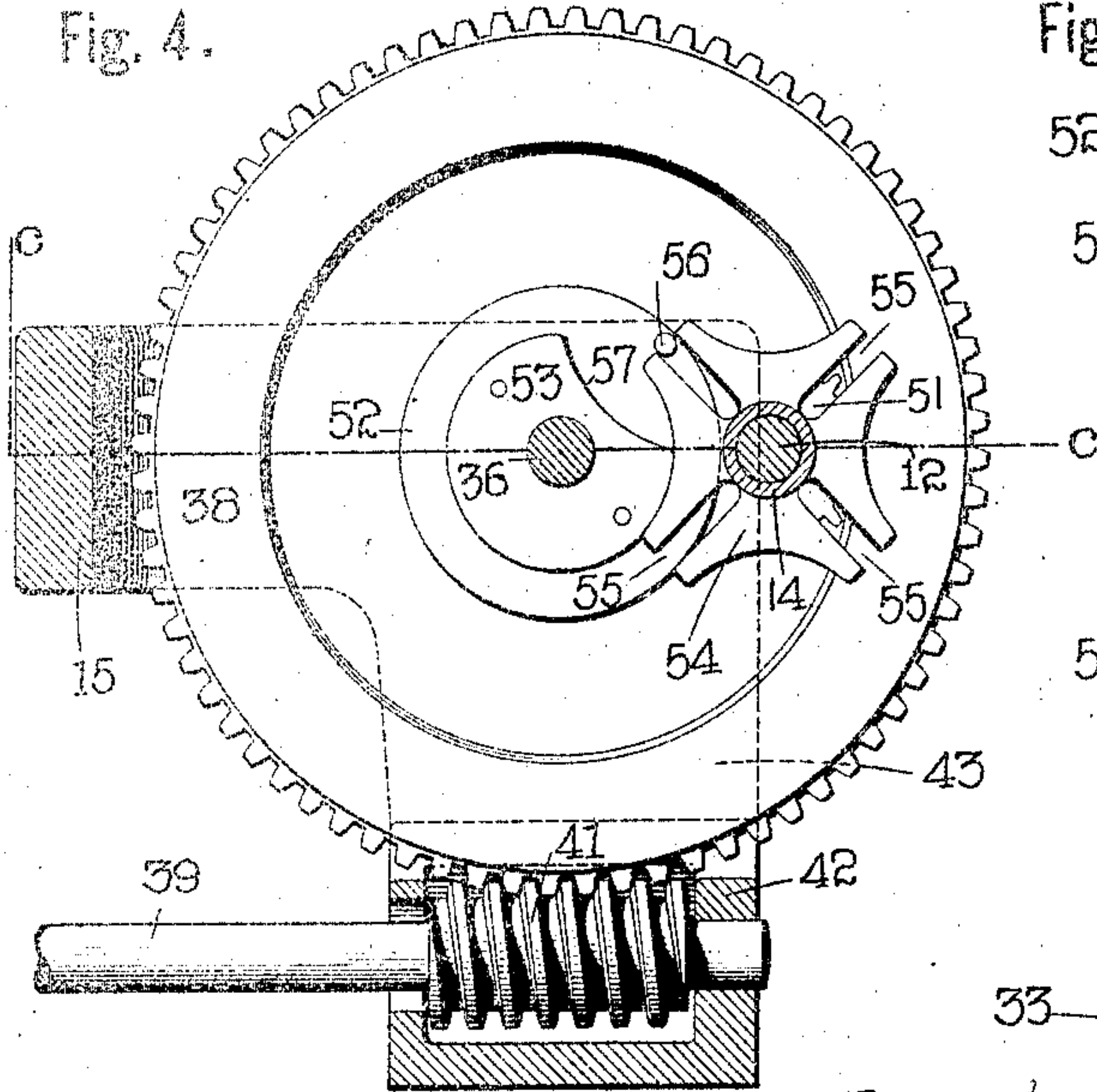


Fig. 6.

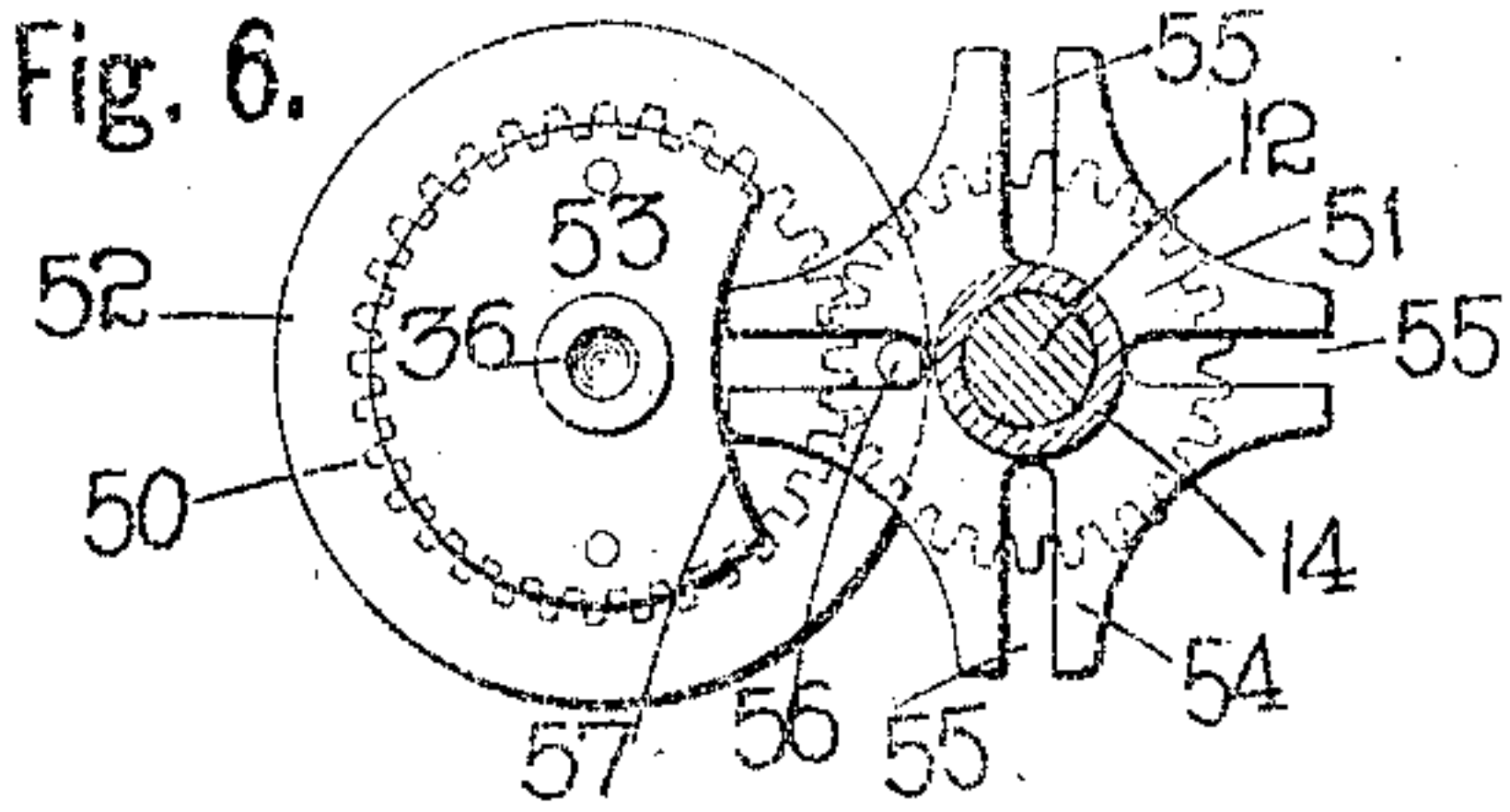


Fig. 7.

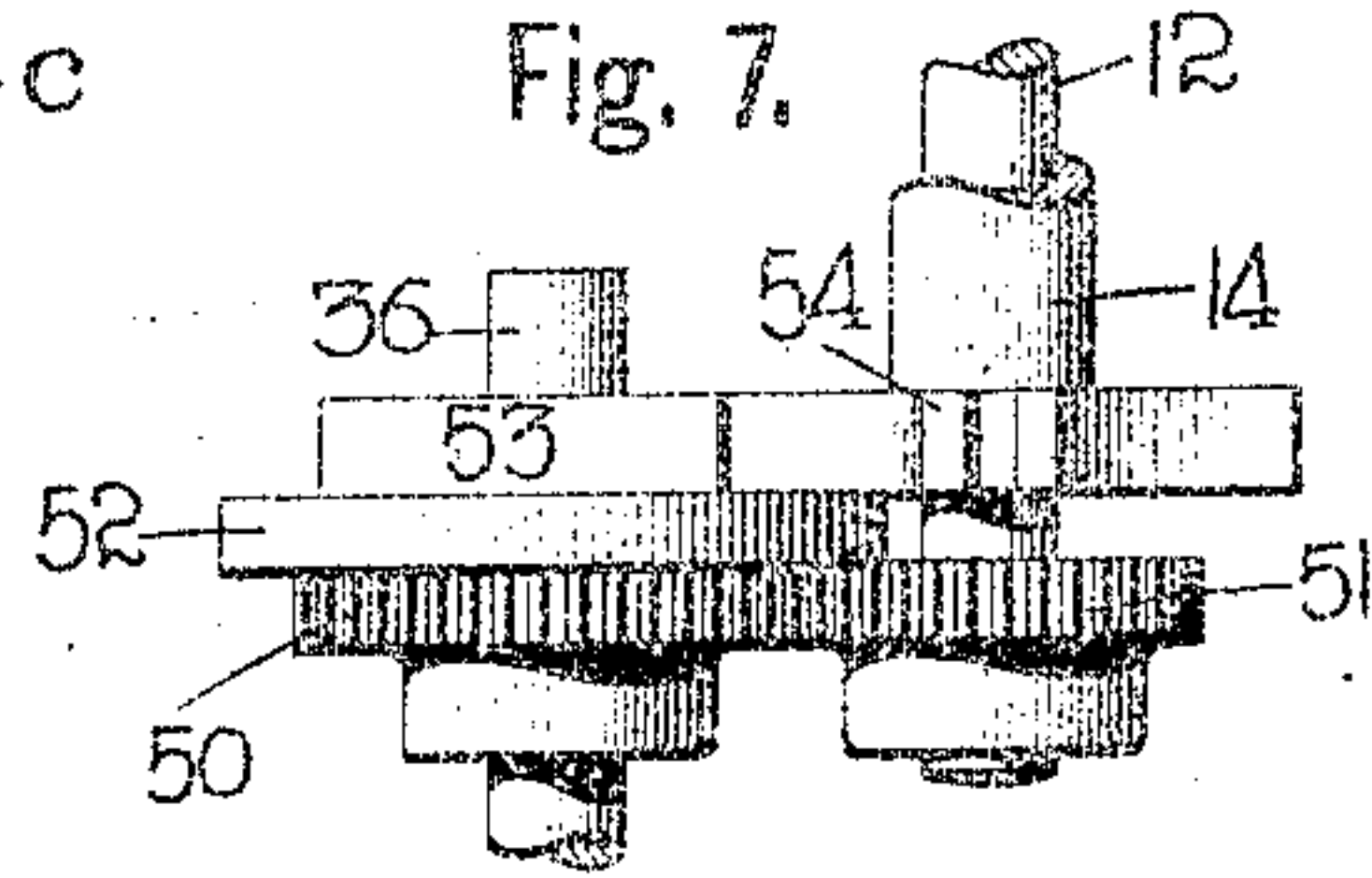


Fig. 8.

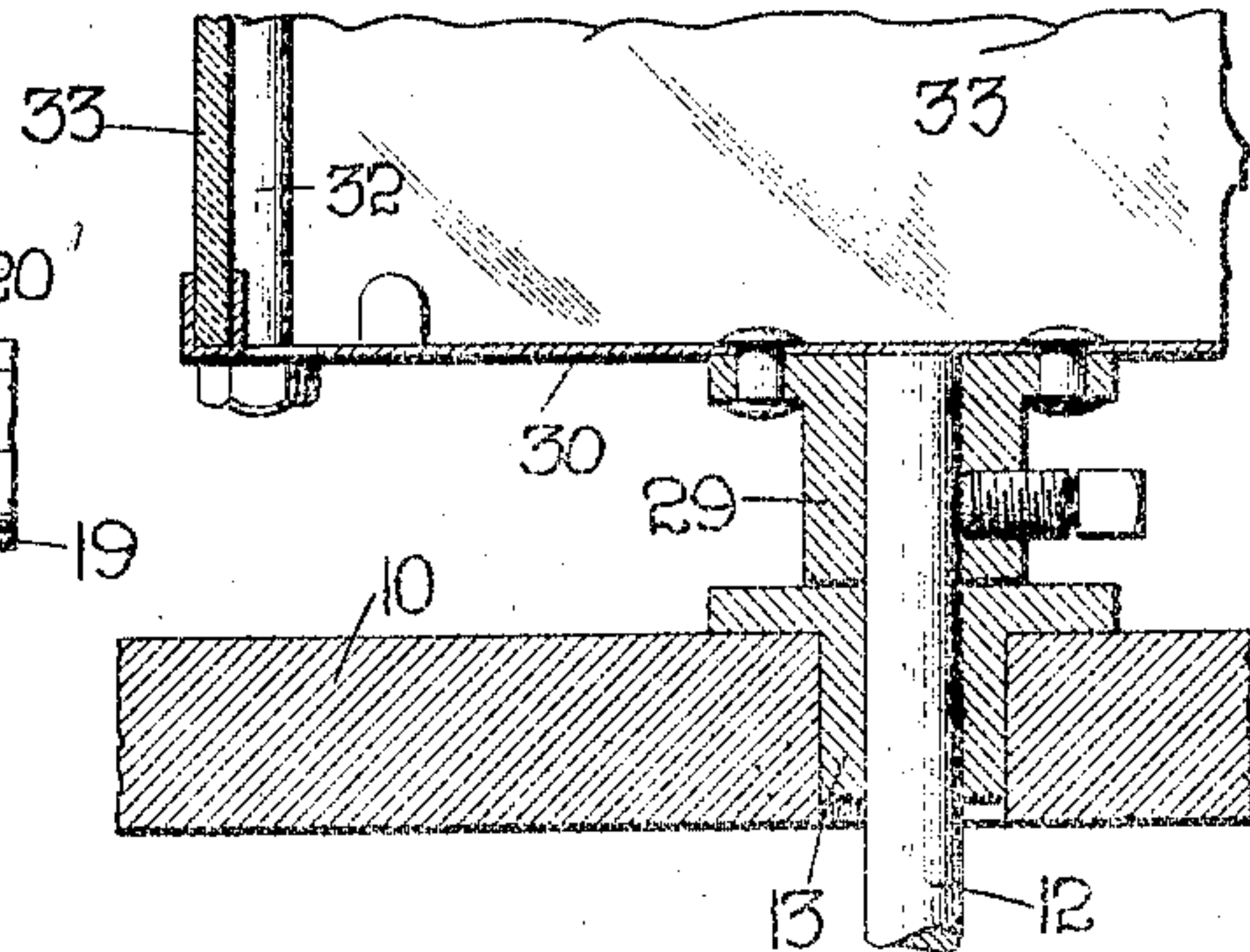


Fig. 9.

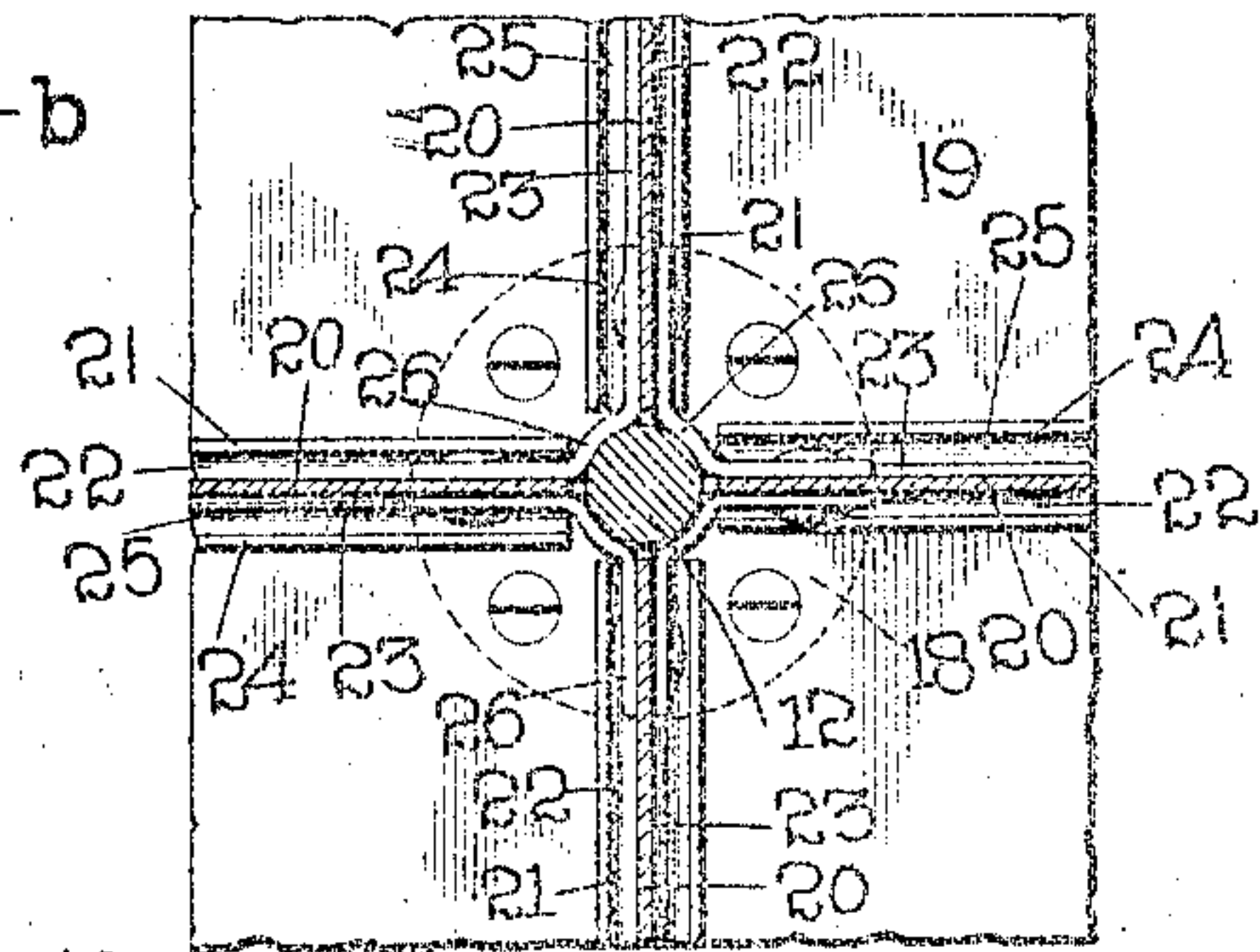


Fig. 10.

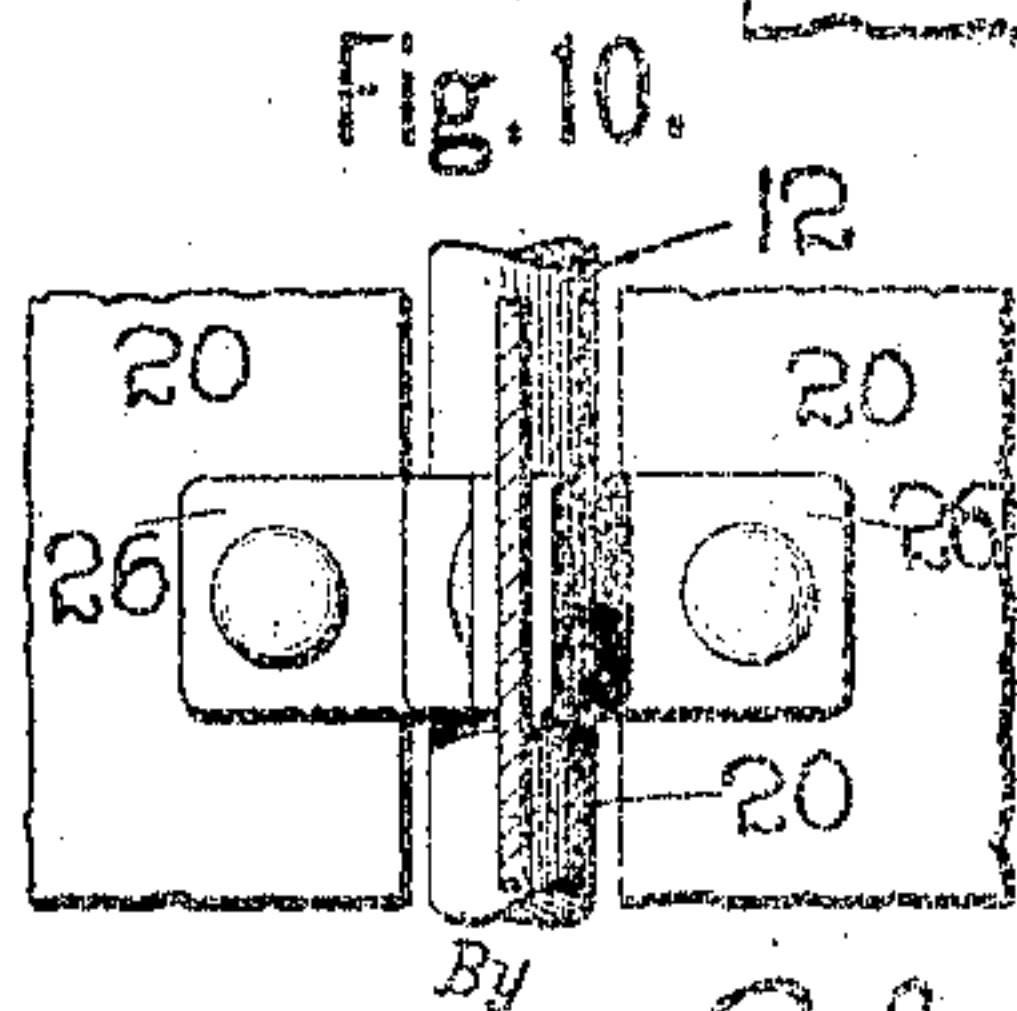
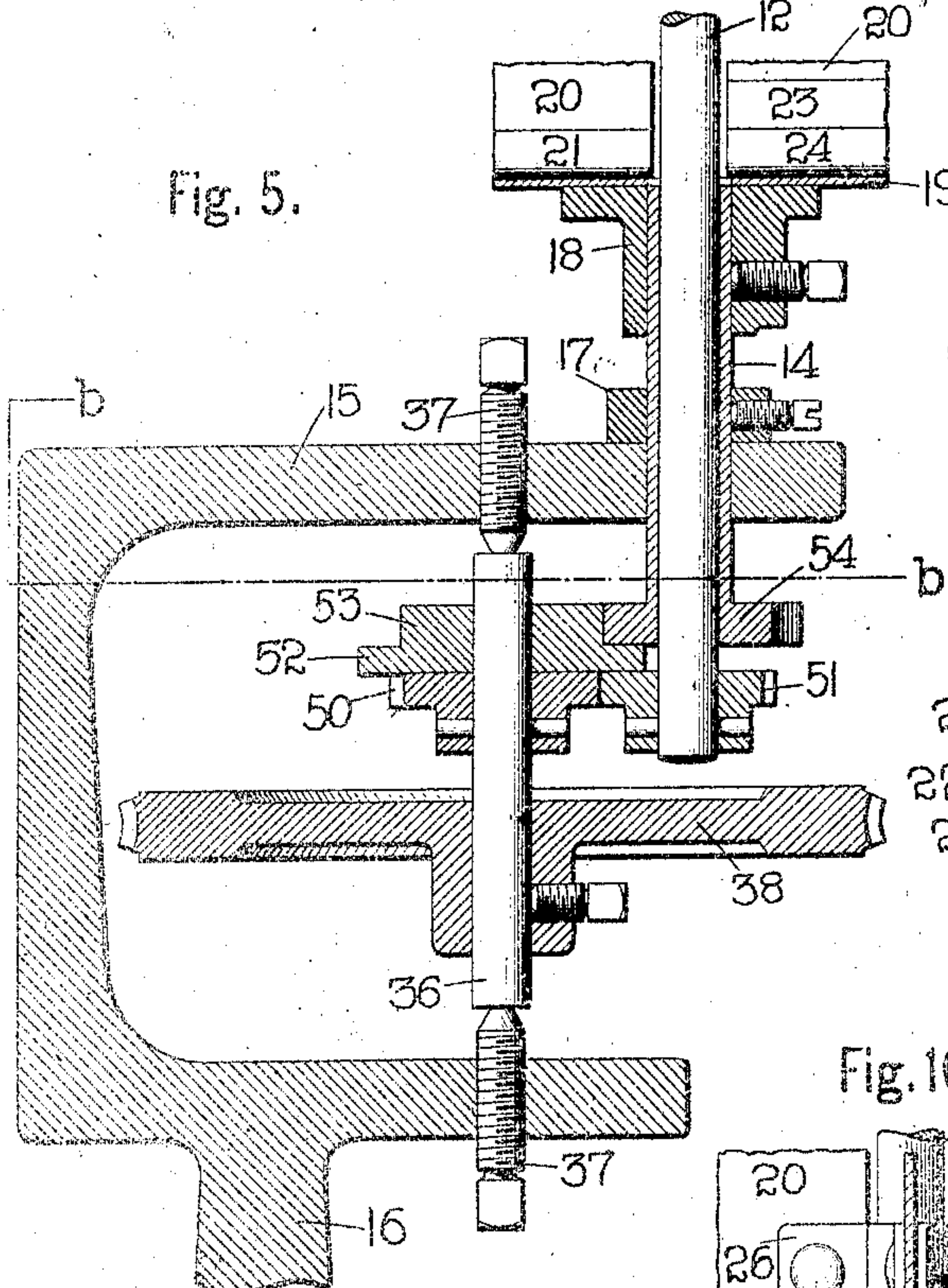
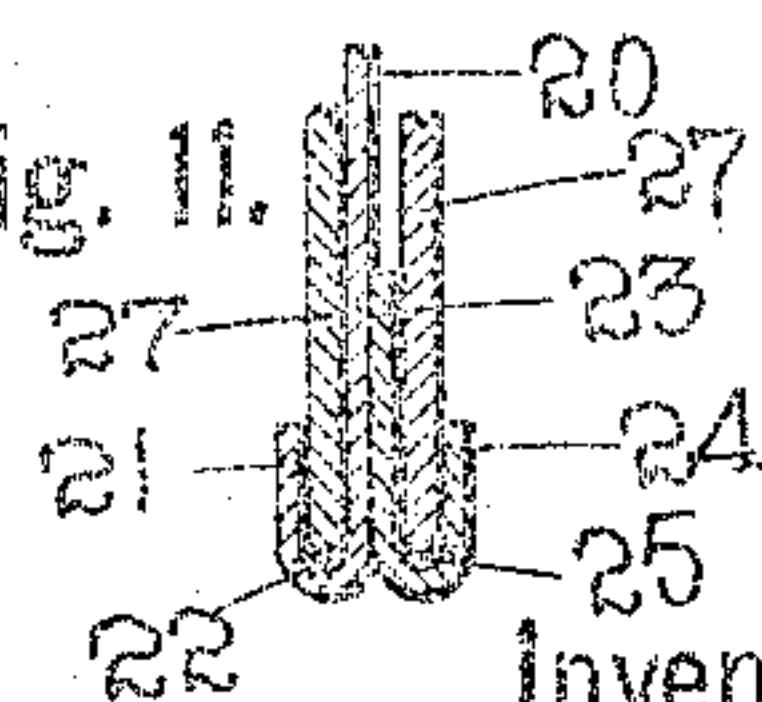


Fig. 11.



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UNITED STATES PATENT OFFICE.

WILLIAM C. CARR, OF BUFFALO, NEW YORK.

ADVERTISING DEVICE.

No. 859,484.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed December 5, 1906. Serial No. 346,412.

To all whom it may concern:

Be it known that I, WILLIAM C. CARR, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a certain new and useful Improvement in Advertising Devices, of which the following is a specification.

My invention relates to an improved advertising device in which a series of advertisements are displayed; and the object of the invention is to provide mechanism for automatically changing the advertisements.

The invention also relates to certain details of construction all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which,—

Figure 1 is a front elevation of the improved advertising device. Fig. 2 is a vertical section through the improved advertising device on line *a a*, Fig. 3. Fig. 3 is a rear elevation of the improved advertising device, with the rear door of the inclosing case removed to disclose the interior mechanism. Fig. 4 is a horizontal section through the mechanism for automatically changing the advertisements, on line *b b*, Fig. 5. Fig. 5 is a central vertical section through the mechanism for automatically changing the advertisements, on line *c c*, Fig. 4. Fig. 6 is a detached plan view of the intermittent drive mechanism. Fig. 7 is a detached side view of the intermittent drive mechanism. Fig. 8 is an enlarged fragmentary central vertical section through the multicolored light reflector, showing the manner of supporting it upon the vertical shaft; also showing a section through the upper journal of the vertical shaft and a fragment of the inclosing case. Fig. 9 is an enlarged fragmentary horizontal section through the rotary holder for holding the advertising cards, the cards being removed. Fig. 10 is an enlarged fragmentary view showing the manner of supporting the advertisement holders from the vertical shaft. Fig. 11 is an enlarged fragmentary vertical section through one of the advertisement holders, showing the manner of holding the advertising cards.

In referring to the accompanying drawings for the details of construction, like numerals designate like parts.

The invention consists of a rotary holder for holding the advertising cards, a varicolored light for attracting the attention of the passerby, and automatic mechanism for intermittently rotating the rotary advertisement holder, all housed within an inclosing case.

The inclosing case.—The inclosing case comprises a lower box like structure and an upper frame extending vertically up from the box like structure. The preferred form of inclosing case, as shown in the accompanying drawings, consists of a base 1, top 2, sides 3 and 4, removable rear cover or door 5, and a lower front wall 6. The front wall 6 extends but a slight distance above the base and forms the front wall of the box like structure and the sides and rear thereof are

formed by the lower portions of the sides 3 and 4 and rear door 5. The upper portion of the front of the inclosing case is closed by a glass plate 7 of ornamental design having space thereon for the display of an advertisement. The lower front wall 6 of the inclosing case, and the ornamental top glass plate 7, are both comparatively narrow so that a large intermediate opening 8, in which the advertisements are displayed, is left in the front of the case between the top of the front wall and the bottom of the glass plate. An ornamental bar 9 is secured to the top 2 of the inclosing case adjacent to the glass plate 7, and serves to support and protect the top edge of said plate, besides giving a finished appearance to the inclosing case. A horizontal bar 10 extends transversely within the inclosing case being located near the top and slightly in the rear of the glass plate 7. A portion of the space between the glass plate and the horizontal bar 10, near each of the sides 3 and 4, is inclosed by a semi-cylindrical pocket 11. These pockets are preferably made of sheet metal in the form shown in Figs. 2 and 3. The purpose thereof will be hereinafter described.

The rotary advertising mechanism.—Briefly stated, this mechanism consists of a vertical shaft and a series of radiating vertical advertisement holders, which are automatically given an intermittent revolving movement by a co-operating star wheel and drive wheel mechanism. In the adaptation shown in the accompanying drawings, the vertical shaft 12 has its upper end journaled in a bearing 13 supported by the horizontal bar 10, and its lower end passed through a sleeve 14, which loosely encircles the shaft and is rotatively supported by the upper horizontal arm of a C-shaped bracket 15, mounted on a pedestal 16, see Figs. 2 and 5. A collar 17, encircles the sleeve 14 above the bracket 15, and is fastened thereto by a set screw, see Fig. 5. By varying the position of this collar, the proper vertical adjustment of the sleeve can be obtained. The radial advertisement holders are preferably formed as illustrated in Figs. 1, 2, 3, 5, 9, 10 and 11, to which figures reference will be had in the following description. In the form of the invention as illustrated, four of these advertisement holders are used. They are supported by the sleeve 14, and extend parallel with the shaft 12, from which they radiate in opposite directions. A flanged collar 18 is fastened to the sleeve 14, above the collar 17, by a set screw, and a comparatively large sheet metal disk 19, is supported by the collar 18, and secured thereto by screws, see Fig. 9. The outer edge of this disk is bent downward at right angles to form an annular flange as shown in Figs. 1, 2 and 3. The advertisement holders each consist of a vertical sheet metal plate 20, which has its top and bottom edges 21 bent upon themselves in the same direction to form opposed horizontal grooves or slideways 22, and sheet metal strips 23 secured by

solder or other means to the opposite side of the sheet metal plate 20, and having one edge 24, bent similarly to the edges 21 of the plate 20, to form correspondingly opposed horizontal grooves or slideways 25, see Figs. 9 and 11. The vertical sheet metal plates 20 are fastened together by metal straps 26, formed as shown in Figs. 9 and 10, and riveted thereto. Three sets of these straps are preferably used, one being located at about the middle, and one near each end of the plates. The portions of the straps 26, of each set, between the plates 20, are curved, and as a whole, form a circular collar which loosely encircles the vertical shaft 12, see Figs. 9 and 10. The cards 27 upon which the advertisements are displayed are of approximately the same shape and size as the sheet metal plates 20, and are supported in the grooves or slideways 22 and 25 in the manner shown in Figs. 1, 3 and 11. They are fastened to the plates 20, by fasteners 28 which pass through openings in the cards and plates. A device is mounted upon the upper extremity of the vertical shaft to throw varicolored lights upon the ornamental glass plate 7, to attract the attention of the passerby. This device is illustrated in Figs. 2, 3 and 8. A flanged collar 29, is fastened to the upper extremity of the shaft 12, above the horizontal bar 10, and a horizontal sheet metal plate 30, is fastened to this collar by rivets, as shown in Fig. 8. A similar plate 31 is supported by rods 32 above the plate 30. These two plates form the top and bottom of a cubical reflector three sides of which are inclosed by multicolored glass 33, see Figs. 2, 3 and 8. An incandescent electric light socket 34, is fastened to the inside of the top 2, of the inclosing case, above the multicolored reflector, and an incandescent light 35, located within the reflector is screwed into the socket as shown in Fig. 3.

The automatic mechanism for intermittently rotating the advertisement.—The mechanism for automatically rotating the advertisement holder intermittently is illustrated in Figs. 2 to 7, inclusive. This mechanism consists of a co-operating star wheel and locking drive wheel, the motive power being supplied by an electric motor, see Figs. 2 and 3, and is housed in the box like structure forming the lower portion of the inclosing case. A vertical spindle 36 is rotatably supported on the cone points of two set screws 37, between the horizontal arms of the C-shaped bracket 15, so as to extend parallel to the shaft 12, and carries a worm wheel 38, which is fastened thereto by a set screw, see Fig. 5. A horizontal shaft 39, is journaled in a bracket 40, and carries a worm 41 at one end which meshes with the worm wheel 38, see Fig. 4. This worm is located in a box 42 supported on an arm 43 extending laterally from the lower arm of the C-shaped bracket 15. The box 42 is filled with lubricant to lubricate the worm 41. A pulley wheel 44 is fastened to the opposite end of the shaft 39, and is connected to the driving pulley 45 of an electric motor 46, by a belt 47, see Fig. 3. Electric feed wires 48 and 49 connect the motor to any source of electricity, such as, for instance, an incandescent light circuit. A gear wheel 50 is secured to the spindle 36 above the worm wheel 38, and a pinion 51, secured to the lower end of the vertical shaft 12, meshes with the gear 50, see Figs. 5, 6 and 7. The gear and pinion are preferably secured to the spindle and shaft by pins as shown in

Fig. 5. A disk 52 having a mutilated disk 53 formed integral therewith is mounted on the spindle 36, above the gear 50, to which it is secured by pins. The disk and mutilated disk co-operates with the star wheel 54 located at the lower extremity of the sleeve 14, and formed integral with said sleeve. This star wheel is provided with a series of radial slots 55 which are equal in number to the number of advertisement holders 20. In the form illustrated in the accompanying drawings, there are four of these slots and they extend oppositely to each other. The peripheral edge of the star wheel 54, between the slots 55, is concaved as shown in Figs. 4 and 6. The disk 52 carries a vertical pin 56 adapted to engage with the slots 55, in the star wheel 54 to operate said wheel and the peripheral edge of the mutilated disk 53 is concaved at 57, to provide space for the passing of the arms of the star wheel 54, when in operation, as shown in Figs. 4 and 6. The concave peripheral edges of the star wheel 54, have the same curvature as the peripheral edge of the mutilated disk 53, with which they engage, see Fig. 4. Incandescent electric lights 58, are located in the pockets 11, see Fig. 3, and illuminate the displayed advertisements. By referring to Fig. 2, it will be seen that the upper portion of the inclosing case is deeper than the remainder, thereby providing an overhang in which the lights 58, are located, the sheet metal pockets 11 acting as reflectors to throw the light upon the advertisements. Electric conducting wires 59 and 60 which are connected to the wires 48 and 49, supply electricity to the lights 58, see Fig. 3. A switch 61, is placed on the incandescent light circuit within the inclosing case; so that the lights 35 and 58 can be turned off when desired. The sheet metal disk 19, serves as a shelf or platform upon which a sample of the article or articles advertised can be placed to show the nature of the article.

The operation of this improved advertising device is as follows,—The motor 46 being started by supplying electricity thereto through the wires 48 and 49, the spindle 36 is rotated by means of the worm wheel and worm 38 and 41, shaft 39, pulleys 44 and 45 and belt 47. This rotates the vertical shaft 12 by means of the intermeshing gear and pinion 50 and 51, and revolves the multicolored reflector at the upper end of the shaft. The rotation of this reflector throws a constantly changing varicolored light upon the glass plate 7, to attract the attention of the passerby to the advertisements displayed. The rotation of the spindle 36 causes the disk 52 to revolve and as the pin 56 comes around, it engages with one of the slots 55 and causes the star wheel 54 and therewith the sleeve 14 to make one-fourth of a revolution. This rotates the advertisement holder one-fourth of a revolution thereby changing the advertisements. As the pin 56 disengages from the slot 55, the peripheral edge of the mutilated disk 53 engages with one of the concave peripheral edges of the star wheel 54, and holds said wheel 54 stationary, thereby preventing more than a one-quarter revolution of the advertisement holder.

The principal advantages of this improved advertising device reside in the simplicity of construction and operation; the displaying of the article itself in conjunction with the advertisement thereof; and the automatic changing of the advertisements at regular

intervals together with the constantly changing vari-colored light to attract the attention of passersby.

I claim as my invention—

- 5 1. In an advertising device, an inclosing case having a lower box like structure and a frame extending vertically up from said structure, a rotary support for advertisements in the frame portion of said case having radial wings to which advertisements are attached, and electric means for intermittently rotating said support located in 10 the box like structure.
2. In an advertising device, an upright case having a front member which extends upward from the lower end of the case and terminates a short distance above said lower end and a glass plate located at the front of the 15 top portion of said case thereby leaving a large intermediate front opening, a multi-colored attention attracting device in the upper portion of the case in the rear of the glass plate, a rotary advertisement support below the attention attracting device in the rear of the large inter-

mediate front opening and electric mechanism inclosed in 20 the lower portion of the inclosing case and adapted to operate the attention attracting device and the rotary advertisement support, substantially as set forth.

3. In an advertising device, an upright case consisting of a base member, a top member, sides and a rear member extending from the base member to the top member 25 and a front member which terminates a short distance above the base thereby forming a lower box like structure and a frame above said structure having an open front, a vertical shaft in said case in the rear of the open front, 30 wings radiating from said shaft, advertisements attached to said wings and means for rotating said shaft located in the lower box like structure.

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