G. G. DIAZ.

AUTOMATIC ADVERTISING BENCH.

APPLICATION FILED AUG. 13, 1918.

1,348,852.

Patented Aug. 10, 1920.

2 SHEETS—SHEET 1.

FIG. 1.

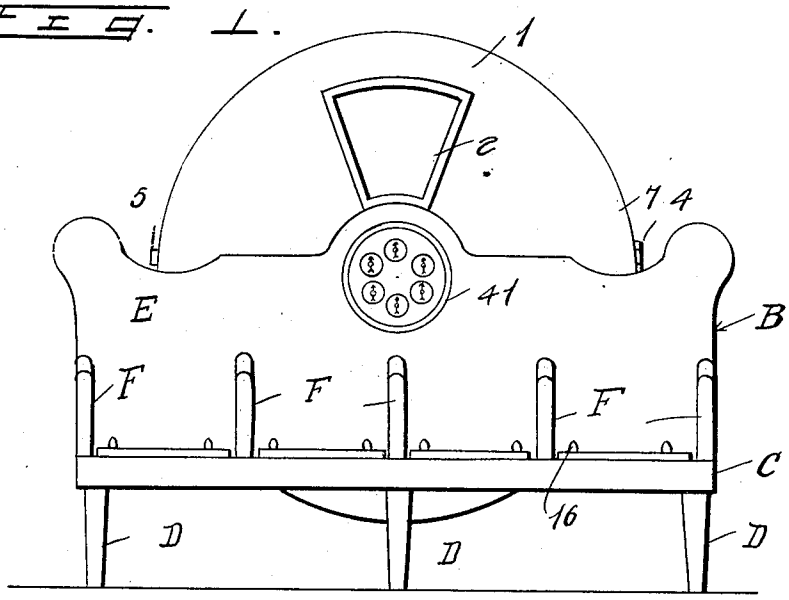
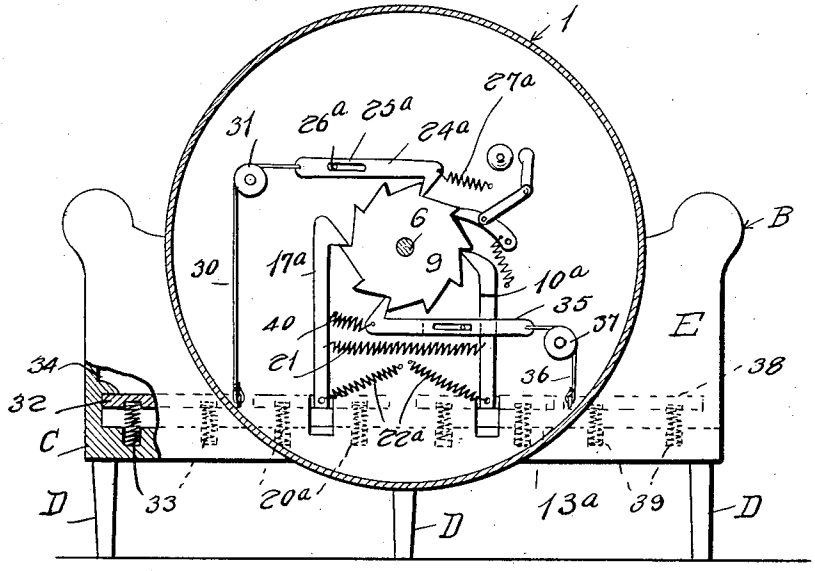


FIG. 2.



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2 SHEETS—SHEET 2.

FIG. 3.

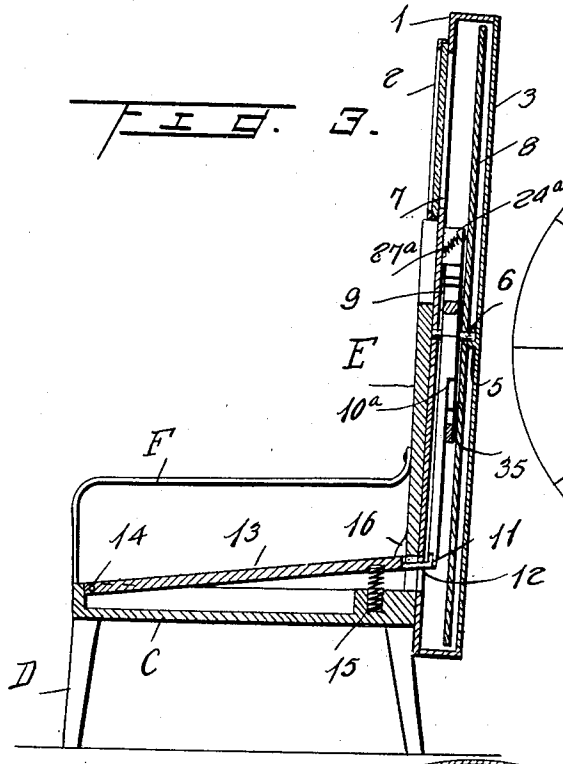


FIG. 6.

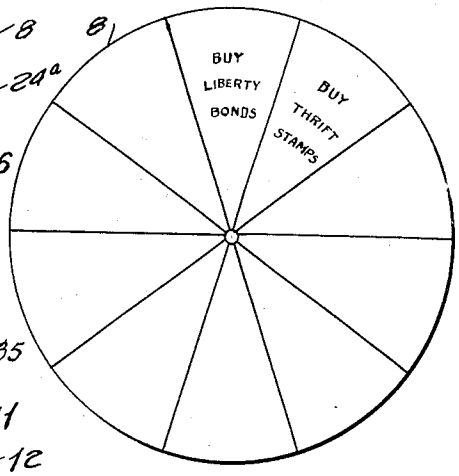


FIG. 5.

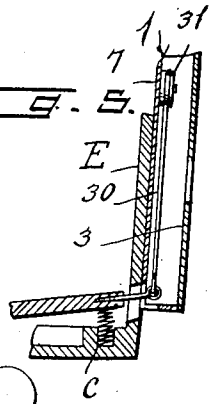
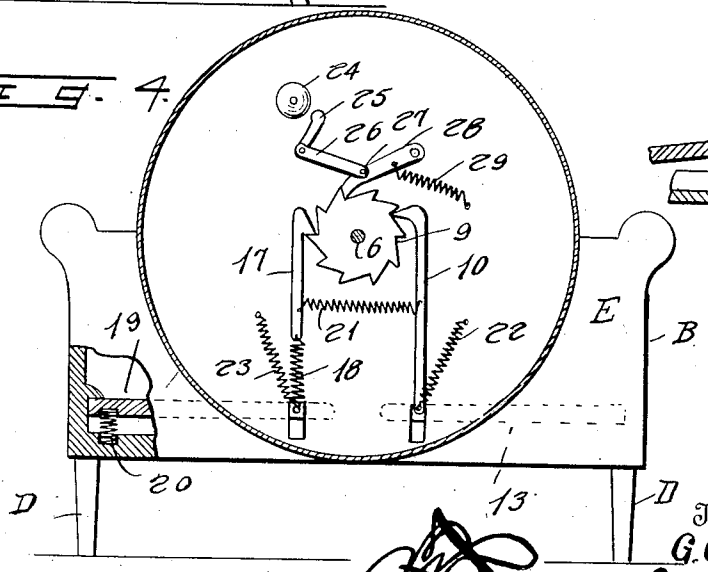


FIG. 4.



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UNITED STATES PATENT OFFICE.

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AUTOMATIC ADVERTISING-BENCH.

1,348,852. Specification of Letters Patent. Patented Aug. 10, 1920.

Application filed August 13, 1918. Serial No. 249,711.

To all whom it may concern:

Be it known that I, GASPAR GARCIA DIAZ, a subject of the King of Spain, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Automatic Advertising-Benches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to advertising means, and more particularly to a seat or bench especially adapted to automatically display advertising matter when in use.

One of the main objects of the invention is to provide a bench and advertising means in connection therewith so connected to the seat of the bench as to be actuated thereby upon a person sitting upon or arising from the seat.

A further object is to provide means for displaying advertising matter in connection with a signal for calling the attention of a person seated upon the bench to this matter.

A further object is to provide a rotatable disk carried by the bench and movable across a display opening, this disk being adapted to have advertisements inscribed thereon, means being provided for causing intermittent rotation of the disk by persons using the bench so as to display the advertisements in succession.

Another object is to provide advertising means of the character stated of simple construction and operation, which may be produced at relatively low cost, and in which the bench employed will present a neat appearance and closely resemble a bench of ordinary construction.

Further objects will appear from the detailed description.

In the drawings:

Figure 1 is a front view of a four seat advertising bench constructed in accordance with my invention,

Fig. 2 is a similar view, broken away, to show the means for actuating the advertising disk,

Fig. 3 is a transverse vertical section through a two seat advertising bench and associated parts,

Fig. 4 is a view similar to Fig. 2 of a two seat bench,

Fig. 5 is a detail of the connections for actuating one of the pawls for rotating the ratchet of the advertising disk,

Fig. 6 is a detail front view of the advertising disk.

The body portion of the bench, designated generally by B, may be of any suitable or standard construction being provided with a bottom C, supported by the legs D, and the back E, the bottom being divided into a plurality of sections or seat compartments by the arm rests F secured thereto and to the body B, these arm rests also serving as bracing members for the back E and bottom C. The body of the bench so far described forms no part of my invention except in so far as it coöperates with the means to be later described for effecting the desired result, and it will be understood that this body of the bench may be of any suitable construction or type desired.

A cylindrical casing 1 is mounted on the back E of the bench, and is of such diameter as to project a considerable distance above the upper edge thereof. This casing, which is preferably positioned at the central portion of the bench, is provided with a substantially segmental display opening through its front wall, this opening extending from the upper edge of the back of the bench and being closed by a transparent closure member 2. The back of the casing 1 is normally closed by a cover or closure disk 3 hingedly secured thereto at 4 and fitting tightly in the casing, this closure disk being normally locked in closed position by a lock 5, which is connected to the disk and the casing in any suitable or preferred manner. The closure disk 3 is provided, at the center of its inner face, with an integral inwardly projecting bearing nipple 5, which rotatably supports one end portion of a stub shaft 6, which extends axially of the casing 1 and has its other end portion journaled in the front wall 7 thereof. A display disk 8 of slightly less diameter than the interior diameter of the casing 1 is frictionally secured on the shaft 6 so as to rotate therewith when the shaft is rotated. The outer or front face of this disk is divided into a plurality of segments each adapted to contain an advertisement inscribed thereon for display through the transparent closure member 2 for the display opening. It will be understood, of course, that these advertisements are so positioned on the disk as to be brought

into proper register with the display opening when the disk is intermittently rotated, the disk being moved through the space of one segment thereof at each partial rotation. By providing means for intermittently rotating the disk through the medium of seats mounted on the bench, the advertisements on the disk will be displayed in succession through the display opening.

A ratchet wheel 9 is secured on the shaft 6 adjacent the inner face of the front wall 7 of the casing. This ratchet wheel is adapted to be engaged, at one side of its axis, by a vertically movable pawl 10, the lower end of which is pivotally secured, as at 11, to the inner end of an angle finger 12 projecting rearwardly from a seat 13, hingedly secured adjacent its front edge, as at 14, to the front edge of the bottom C of the bench. This seat is normally held in raised position by expansion coil springs interposed between the seat and the bottom of the bench, these springs being designated by the numeral 15. Upward movement of the seat on its hinge axis is positively limited by a stop member 16 secured to the back and projecting above the inner edge portion of the seat. To accommodate movement of the finger 12, the back E and front wall of the casing 1 are provided with alined slots, as illustrated in Fig. 3. A vertically movable pawl 17 is mounted on the opposite side of the ratchet wheel 9, and is directed oppositely to the pawl 10, so that, when depressed, it will act to move the ratchet wheel a partial rotation. The lower edge of the pawl 17 is connected by a comparatively rigid coil spring 18 to an angle finger, corresponding to the finger 12, projecting rearwardly from the back edge of the seat 19, which is normally held in raised position by means of the expansion coil springs 20. When a person sits upon the seat 19 so as to depress the same, the pawl 17 will be drawn downwardly into engagement with the teeth of the ratchet wheel 9, and will act to move this ratchet wheel through a predetermined distance, this distance being such as to cause rotation of the disk 8 through a distance corresponding to one segment thereof. When a person sitting upon the seat 13 arises therefrom this seat will be moved upwardly so as to cause partial rotation of the wheel 9 through the medium of the pawl 10. To insure proper engagement of the pawls 10 and 17 with the ratchet wheel, a tension coil spring 21 is secured at its opposite ends to the pawls and acts to normally hold the same in engagement with the ratchet wheel, as illustrated. Also, tension springs 22 and 23 are secured at their lower ends to the angle fingers for pawls 10 and spring 18, respectively, the upper ends of these tension springs being secured to the front wall 7 of the casing 1, these springs being supplemental to the expansion springs for raising the seat and serving to insure return of the seat to raised position when not in use.

In connection with the mechanism for causing intermittent rotary movement of the display disk 8, I provide a signal or alarm mechanism for calling attention to the advertisement being displayed. A bell 24 is mounted on the inner face or front wall 7 of the casing and adapted to be sounded by a hammer or striker 25 carried by a bell crank lever 26, pivoted on the wall 7, the end of this lever being connected by pin and slot connections, as at 27, to a pawl 28, which is normally held in engagement with the ratchet wheel 9 by a tension spring 29 secured thereto and to the front wall of the casing, this pawl being pivotally mounted on the wall 7. When the ratchet wheel 9 is turned, the pawl 28 is engaged by one of the teeth thereof, so as to be lifted, thus causing movement of the hammer 25, toward the bell 24 and bringing the hammer into engagement therewith, so as to sound the bell, thus giving a signal which serves to call the attention of persons upon the bench and passers by to the advertisement being displayed.

The mechanism for rotating the display disks so far described is especially adapted for use in connection with two seat benches, such as illustrated in Figs. 3 and 4 of the drawings. In Figs. 1 and 2, the operating mechanism has been slightly modified to adapt it for use in connection with a four seat bench. In this form, the vertically movable pawls 10^a and 17^a are pivotally secured at their lower ends to the seats 13^a and 20^a, respectively. These pawls are normally held in engagement with the ratchet wheel 9 by a tension spring 21, as in Fig. 4, supplemental tension springs 22^a being secured to the pawls at their lower ends and to the front wall of the casing so as to assist in raising the seats 20^a and 13^a. The pawls 10^a and 17^a and seats 13^a and 20^a will act to impart intermittent rotation to the ratchet wheel 9 in the same manner as the pawls 10 and 17 and the seats 13 and 20. A horizontal pawl 24^a is slidably mounted on the inner face of the front wall 7 of the casing above the ratchet wheel 9, this pawl being provided with a longitudinally extending slot 25^a, receiving a pin 26^a for guiding the pawl during movement and slidably supporting the outer portion of the stem thereof. A tension spring 27^a is secured to the inner end of this pawl and to the casing, so as to normally hold the pawl in its innermost position. An operating cable 30 is passed about a grooved pulley 31, rotatably mounted on the inner face of the wall 7 of the casing, the lower end of this cable being secured to the end seat 32, which is normally held raised by expansion coil springs 33, upward movement of this

seat being positively limited by the stop member 34. A horizontal pawl 35 is slidably mounted on the front wall of the casing below the ratchet wheel 9, this pawl being disposed oppositely to pawl 24ª. An operating cable 36 is secured to the outer end of the pawl 35, this cable being passed about a grooved pulley 37 mounted on the wall 7 and having its lower end secured to the end seat 38, which is normally held in position by expansion coil springs 39. When either of the seats 34 or 38 is depressed, the pawl which is connected to this seat will be moved outwardly so as to move the ratchet wheel 9 through a partial rotation in the same manner as it is actuated by the pawls 17ª and 10ª. The pawl 35 is provided with a tension spring 40, secured to the inner end thereof and to the wall 7, which serves to return this pawl to operative position, thus insuring proper engagement thereof with the teeth of the ratchet wheel.

If desired, though not necessarily, a suitable meter or recorder 41 may be mounted in back E of the bench, this recorder being of any suitable or standard construction. The recorder 41 may be provided with a plurality of dials and indicating hands or pointers movable thereover, these dials indicating tens, hundreds, thousands, etc., and each being provided with numerals extending from one to zero in order, the gearing for operating the pointers or hands being so arranged as to cause movement of the pointer of one dial through a distance of one space when the pointer or hand for the preceding dial has been moved through a complete rotation. This recorder is of common construction, and need not be further described in detail, and may be operatively connected to the shaft 6, so as to be intermittently rotated thereby for the purpose of operating the mechanism of the recorder, thus providing means whereby the number of persons using the bench will be accurately recorded. A bench constructed in this manner is especially adapted for use in railway stations, large department stores, and other public places in which the advertisement will be successively displayed to a comparatively great number of persons.

It will be evident that there may be slight changes made in the construction and arrangement of the details of my invention without departing from the field and scope of the same, and I intend to include all such variations, as fall within the scope of the appended claims, in this application in which a preferred form only of my invention is disclosed.

What I claim is:

1. In advertising means, a bench provided with a plurality of seats hingedly secured thereto adjacent their front edges, a casing mounted on the back of said bench and provided with a display opening through its front wall, a stub shaft rotatably mounted in said casing, a display disk secured on said shaft for movement across the display opening and adapted to have advertisements inscribed upon its surface for display purposes through said opening, a ratchet wheel secured on said stub shaft, pawls engaging said ratchet wheel, means for normally maintaining the seat in raised position, and means for actuating said pawls so as to cause predetermined rotary movement of the ratchet wheel when certain of said seats are depressed and certain others of the seats are raised.

2. In advertising means, a bench provided with a plurality of seats hingedly secured thereto adjacent one edge, a casing carried by the back of the bench and provided with a display opening, a display disk rotatably mounted in said casing for movement across the display opening thereof, a ratchet wheel connected with said disk, operating members engaged with said ratchet wheel to cause intermittent rotation thereof, means for normally retaining said seats in one position, and means to actuate said operating members to cause predetermined rotary movement of the ratchet wheel when certain of said seats are depressed and certain others of the seats are raised.

In testimony whereof I affix my signature in presence of two witnesses.

GASPAR GARCIA DIAZ.

Witnesses:

R. BETANCOURT,

ANTONIO PEREZ.