

J. W. SILVER.
 ADVERTISING MACHINE.
 APPLICATION FILED APR. 29, 1908.

933,272.

Patented Sept. 7, 1909.
 2 SHEETS—SHEET 1

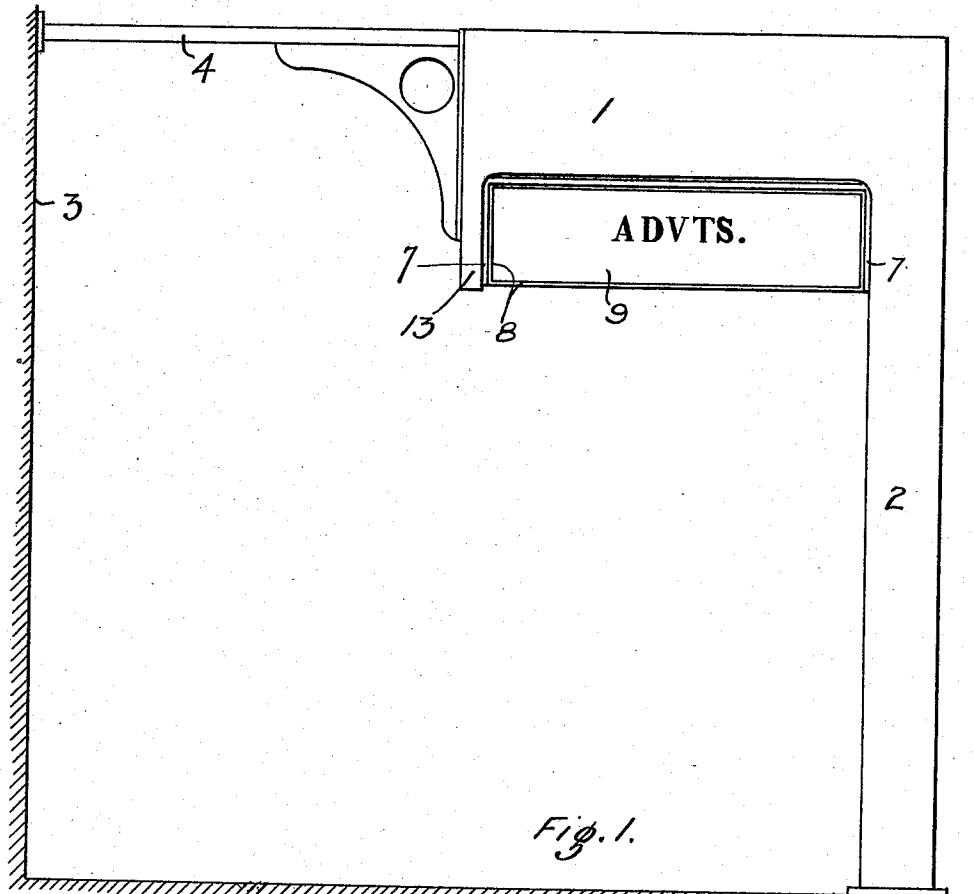


Fig. 1.

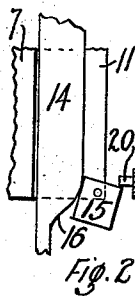


Fig. 2.

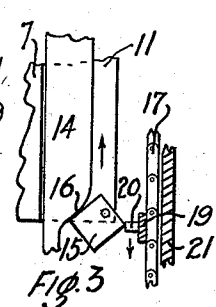


Fig. 3.

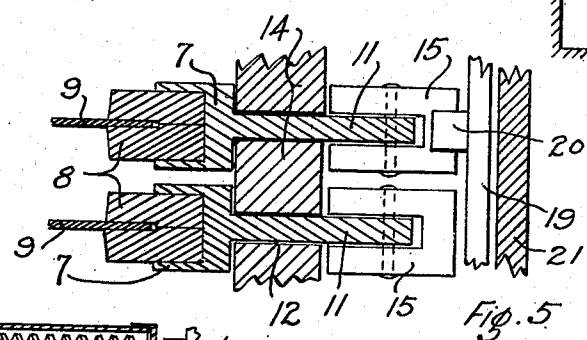


Fig. 5.



Fig. 4.

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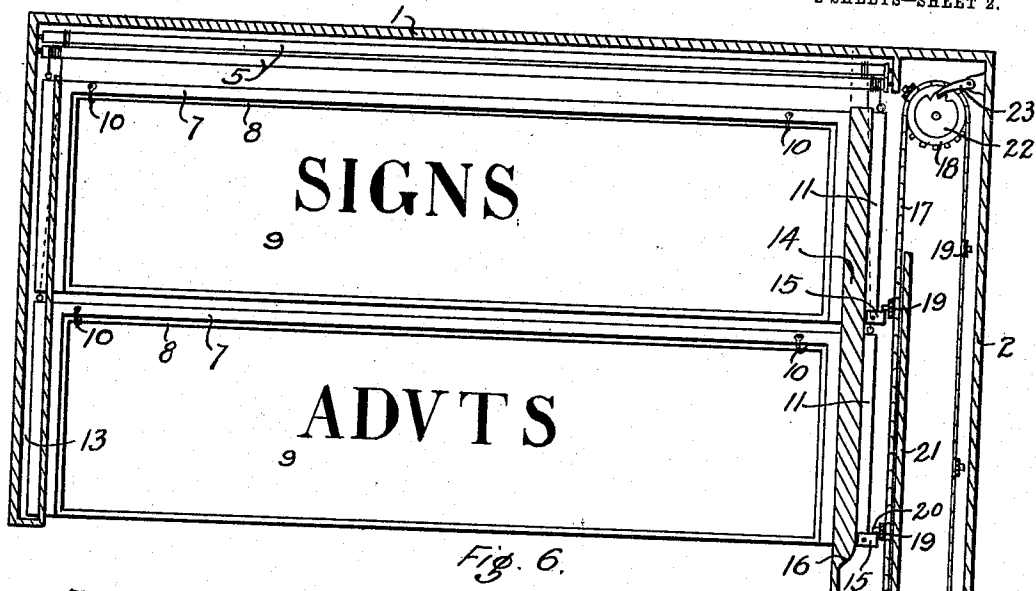


Fig. 6.

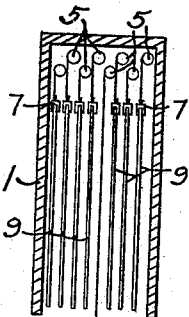


Fig. 7.

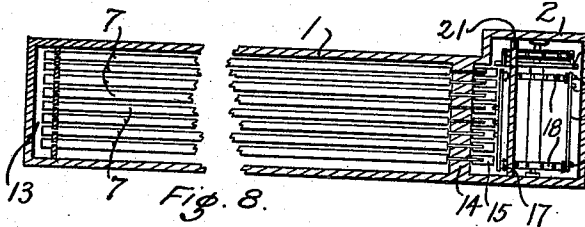


Fig. 8.

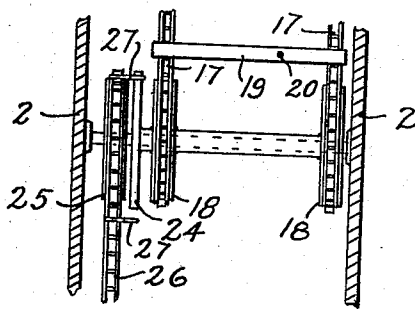


Fig. 9.

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UNITED STATES PATENT OFFICE.

JESSE W. SILVER, OF TACOMA, WASHINGTON.

ADVERTISING-MACHINE.

933,272.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed April 29, 1908. Serial No. 429,864.

To all whom it may concern:

Be it known that I, JESSE W. SILVER, a citizen of the United States of America, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Advertising-Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to advertising machines, and especially to that class in which a series of advertisements are automatically and consecutively exposed to view, and has for its objects to provide improvements in the means for bringing the advertisements into view, and for removing them therefrom at specific intervals. I attain these objects by the mechanism and devices illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my machine in use; Figs. 2 and 3 are elevations showing the automatic tripping devices in position for holding the advertisement in view and for releasing it therefrom respectively; Fig. 4 is a partial section of the spring roller; Fig. 5 is a horizontal section showing the actuating means whereby the advertisements are brought into view, two of such advertisements being shown side by side; Fig. 6 is an enlarged side elevation of the complete machine, the outer cover having been removed to expose the interior; Fig. 7 is a vertical cross section through the sign box showing the advertisements therein, one of said advertisements being exposed to view; Fig. 8 is a horizontal section of the sign box taken on the line just below the spring rollers, and Fig. 9 is an enlarged elevation of the operating sprockets.

Similar numerals of reference refer to similar parts throughout the several views.

This invention consists of a box suspended in a suitable position and containing a number of advertisements, signs, or cards suspended from spring rollers therein, the action of the springs being such as to hold the signs within the box. The box is open at its lower edge. The operating means are preferably mounted within the standard from which the box projects, each of said advertisements extending through slots in the standard and having means thereon adapted to be engaged by suitable pins mounted on an endless belt, preferably a sprocket chain, said pins being arranged on said belt in such

a manner as to successively engage said signs and to draw them down out of the box, one at a time, and so that when one of the signs has been brought down to its lowest position the next pin is just engaging the next sign, and the length of the belt is preferably so arranged that a complete revolution thereof will expose all the signs at once. This actuating belt is itself intermittently actuated by means of a continuously traveling belt which carries two projecting pins adapted to engage two diametrically oppositely positioned teeth connected to the sprocket wheel of the first belt, so that by every revolution of the continuously traveling belt the first belt moves through one revolution of the sprocket wheel, and this wheel is so proportioned that one revolution thereof is equal to the space between the actuating pins thereon, so that every time the continuously moving belt makes one revolution a sign is released from view and a new sign is brought to view, and so that while the said belt is traveling the sign will remain stationary until the pins once more actuate the intermittently moving belt. When a sign is thus exposed it is in the position shown in Fig. 1 and the actuating pin is in the position shown in Fig. 2, but the moment the belt moves again the actuating pin moves into the position shown in Fig. 3 and becomes disengaged from the sign, allowing the spring roller supporting said sign to withdraw it into the box.

Referring now more particularly to the drawings, the box 1 is supported on a standard 2 and may be braced to the wall 3 by means of a brace and bracket 4, the proportions being such, if it is used in a public thoroughfare, that ample room for all traffic is provided. Within the upper end of the box 1 are supported the series of spring rollers 5, each of said rollers being provided with an internal spring 6 therein in a manner entirely similar with the ordinary spring rollers as now used for shades. From each of these spring rollers 5 (see Fig. 6) is supported a three-sided frame 7 by means of suitable cords at each end. Each frame 7 has vertical slots therein adapted to receive the tension 13 of the box 1 so that said frames holding in any suitable manner the sign cards 9 and being held in place within the frames 7 by means of suitable hooks 10. The frames 7 have necks 11 (see Fig. 5) at each end which engage in the parallel vertical slots 12 in the frame 14. The outer necks of

the said frames 7 have heads within the extension 13 of the box 1 so that said frames are guided by the slots 12 (see Fig. 8). The inner set of necks 11 extend beyond the part 14 of the frame, through which the slots 12 pass, and are provided at their lower corners with pivoted tripping blocks 15, (see Figs. 2, 3, 5, 6 and 8) said blocks 15 being pressed down by the actuating pins and engaging with their inner surfaces the said part 14. The part 14 is provided with a curved portion 16 at its lower edge so that as the tripping block 15 reaches this part it turns on its pivot, as shown in Fig. 3, and withdraws from under the actuating pin so that said tripping block is entirely removed from the pin and the frame 7 is drawn up into the box 1 through the action of the springs 6 in the roller 5.

The operating mechanism consists of two similar parallel sprocket chains 17 mounted vertically between two pairs of sprocket wheels 18 and carrying between them at regular intervals, as before explained, cross bars 19, each of said cross bars carrying at different relative positions the actuating pins 20, each of said pins being arranged to engage one of said tripping blocks 15. A back board 21 is suitably supported within the standard 2 adjacent to the rear of said cross bars 19 so that pins 20 cannot become disengaged from the tripping blocks 15 by the yielding of the chain before the proper time. The mutilated ratchet wheel 22 is mounted in connection with one of the sprocket wheels and is engaged by dog 23 so that when the chain is not being operated the back pressure of the spring 6 will not reverse the action and allow the exposed sign to be withdrawn by simply drawing the chain 17 backward.

The lower sprocket wheels 18 have in connection therewith and to one side thereof, a two-toothed turning lever 24. Adjacent to said lever 24 is a loosely mounted sprocket wheel 25 over which the continuously traveling sprocket chain 26 passes, and said chain 26 carries two sidewise projecting pins 27, said pins being spaced so as to turn the lever 24 through one complete revolution every time that they pass over the sprocket wheel 25. The sprocket chain 26 may be driven by any suitable means, but preferably

by means of an electric motor having a worm gear mounted thereon engaging a gear connected to the lowest sprocket wheel over which chain 26 passes.

It is apparent then that for each complete revolution of sprocket chain 26 the sprocket chain 17 will move through the space equal to the distance between two of its cross bars 19, and that said chain 17 will not move except when the pins 27 are passing over the sprocket wheel 25. As soon as sprocket chain 17 starts to move the pin 20 which is holding down one of the signs draws it slightly farther down until the tripping block 15 slips from thereunder and the sign is withdrawn by the spring 6. At the same time the next pin 20 engages the next tripping block 15 and draws it down to the position shown in Fig. 1 and holds it there until the chain 17 is again actuated.

Having described my invention, what I claim is:

In an advertising machine, the combination of a box; spring rollers mounted in the box and adapted to support advertisements in parallel planes; a tripping block pivoted to each of the advertisements; an intermittently traveling belt; pins mounted on said belt, and equidistantly spaced longitudinally thereof, and in different transverse planes thereon, and each adapted to engage one of said tripping blocks to withdraw the advertisement connected thereto from the box and against the action of the spring rollers; a stationary body engaged by said tripping blocks whereby said blocks are held in engaging position; a curved part of said stationary body engaged by said tripping blocks whereby said blocks recede from the engaging position to release the advertisement; a continuously moving belt; and a pair of pins mounted on said continuously moving belt and adapted to actuate said intermittently traveling belt through a space equal to the distance between two successive pins on said intermittently traveling belt.

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

JESSE W. SILVER.

Witnesses:

S. C. IRWIN,
J. S. ELLSWORTH.