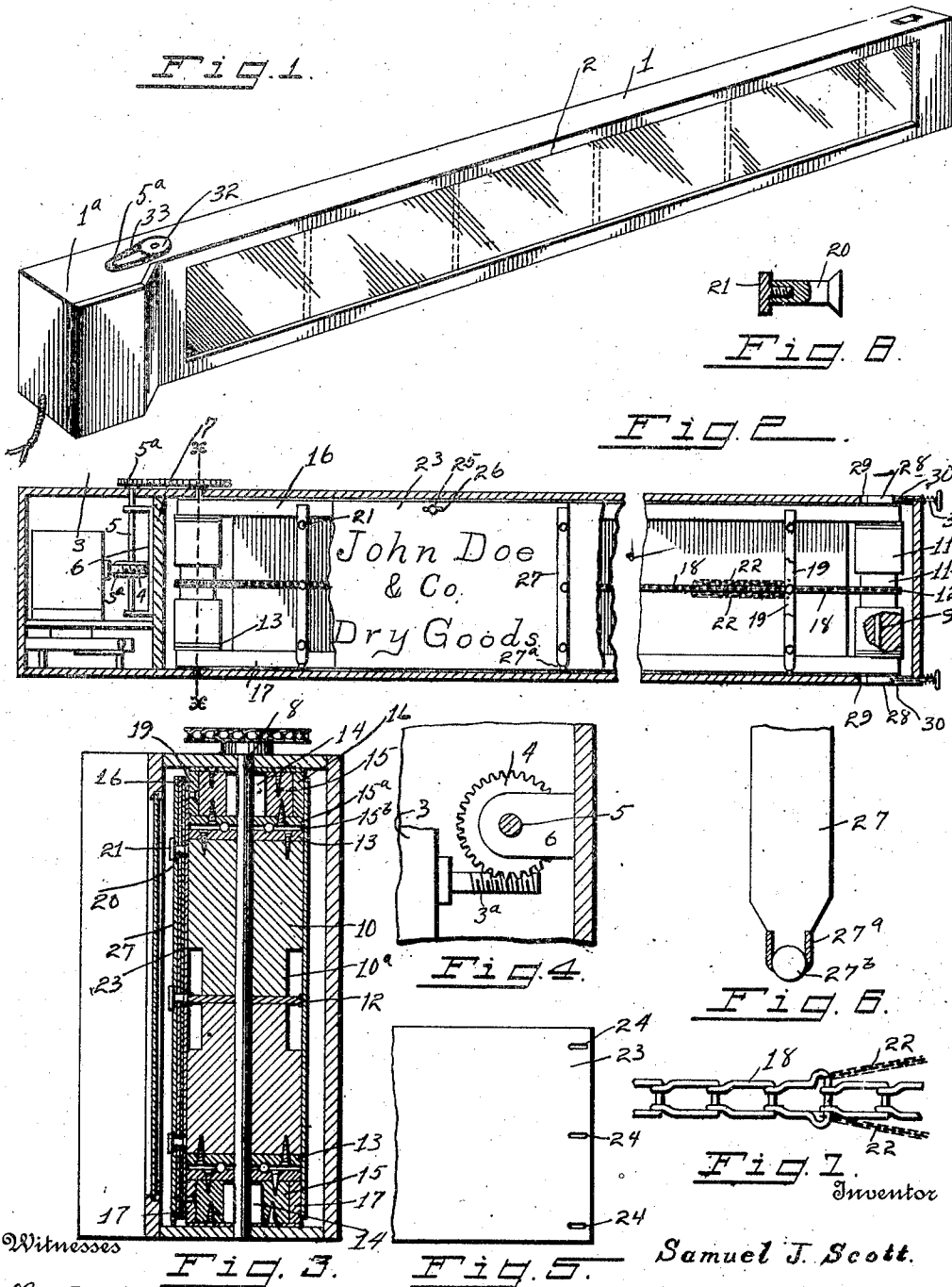


S. J. SCOTT.
MOVING ADVERTISING DEVICE.
APPLICATION FILED SEPT. 30, 1909.

972,258.

Patented Oct. 11, 1910.



Witnesses
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Fig. 5.

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UNITED STATES PATENT OFFICE.

SAMUEL J. SCOTT, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-THIRD TO JAMES O. SLOAN AND ONE-THIRD TO ISAAC N. GATRELL, BOTH OF COLUMBUS, OHIO.

MOVING ADVERTISING DEVICE.

972,258.

Specification of Letters Patent.

Patented Oct. 11, 1910.

Application filed September 30, 1909. Serial No. 520,241.

To all whom it may concern:

Be it known that I, SAMUEL J. SCOTT, citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Moving Advertising Devices, of which the following is a specification.

My invention relates to the improvement of moving signs and the objects of my invention are, to provide an improved mechanism by means of which advertising cards or signs may be successively displayed through the traveling movement of a continuous support; to provide improved means for insuring a uniform operation of the traveling support; to provide means for reducing the friction of the parts; to produce improved means for attaching the sign cards to the support or carrying device and to provide other improvements, the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of my improved sign cases. Fig. 2 is a vertical longitudinal section of the same, showing part of the internal mechanism in elevation. Fig. 3 is an enlarged vertical section on line *xx* of Fig. 2. Fig. 4 is an enlarged sectional view illustrating a motor drive hereinafter described. Fig. 5 is a face view of a portion of one of the sign cards. Fig. 6 is a view in elevation of a portion of one of the sign cards' retaining bars or cleats, and Fig. 7 is a front elevation of a portion of a chain belt which I employ in the manner hereinafter described.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ an elongated casing or housing, such as is indicated at 1, said housing being of a suitable length and being provided in its forward side or face, throughout the greater portion of its length, with an opening 2. One end of the casing is, as indicated at 1^a, slightly enlarged and in said enlargement is mounted a suitable motor 3, the shaft 3^a of which has a gear connection with a worm wheel 4, said worm wheel being carried on a vertical shaft 5, which is mounted in the out-turned arms of a bracket 6, the latter being supported from a vertical frame member 7,

which is within the enlarged portion of the housing 1. The shaft 5 extends through the upper side of the housing 1 and carries a small sprocket wheel 5^a.

Mounted vertically in the casing 1, adjacent to the enlargement 1^a, and near the opposite end of said casing are vertical shafts 8 and 9. Each of these shafts carries a vertical sleeve or roller, shown at 10 and 11, each having a reduced central portion 10^a and 11^a. And each of these roller bodies is preferably formed of two sections of equal length and between the reduced adjacent ends of these sections is mounted upon the central shaft a sprocket wheel 12. As shown in the drawing, the upper and lower ends of the rollers 10 and 11 are at a distance from the upper and lower sides of the casing 1 and each of said roller ends has affixed thereto an end plate, such as is more clearly shown at 13 in Fig. 3 of the drawing. On the outer side of each of the end plates the central shaft 8 or 9 is surrounded by a set or plurality of vertical roller bearings 14, each set of which is incased movably within a belt wheel 15. Each of these belt wheels 15 is formed with a disk-like bottom plate 15^a, and between said bottom plate and the adjacent plate 13 are provided bearing balls 15^b. Running over the upper belt wheel 15 is a belt 16 and running over the lower belt wheel 15 is a belt 17.

18 represents a chain belt which runs over the sprocket wheels 12 of the rollers 9 and 10.

At desirable intervals, the upper and lower belts 16 and 17 are connected by vertical cleats or strips 19, the end portions of said cleats being preferably riveted to said belt. Each of these cleats has projecting outwardly therefrom, at intervals, pins 20, the outer end portion of each of said pins having a threaded socket to receive the threaded stem of an enlarged pin head 21 (see Fig. 8). The chain belt 18 is at one or more points connected with one of the cleats 19 through the medium of a pair of short connecting chains 22.

23 represent separately formed advertising cards, each card having formed therein adjacent to each end slotted openings 24, these end openings being adapted to receive the outwardly projecting pins 20 of the cleats 19 and the ends of the cards attached thus being made to over-lap each other. The upper portion of each of the cards 23 is

further connected with the upper belt 16 by the engagement of a button 25 which projects from said belt with a horizontal slotted opening 26 formed in the card.

5 27 represents outer side vertical cleats or retaining bars which are provided with openings to receive the outer end portions of the pins 20, said cleats being held on said pins by the pin heads 21. The lower end
10 of each of the cleats 27 has formed therewith downwardly projecting fingers 27^a, in which is mounted a bearing ball 27^b, said bearing balls being adapted to run upon the casing 1 and the lower side of the opening
15 2, and thus form an anti-frictional support for the connected signs and their carrying belts.

The ends of the vertical shafts 9 are preferably mounted in blocks 28, which are slidably mounted in elongated recesses 29 formed
20 in the upper and lower sides of the casing 1. From each of these bearing blocks extends outward through the end of the casing a rod or stem 30, having an enlarged head, and between said head and the end of the casing is
25 provided a coil spring 31, the tension of which serves to hold the bearings 28 in such positions as to retain the belts in taut condition.

30 Upon the upper end of the shaft 8, above the casing 1, is carried a sprocket wheel 32, which is connected with the sprocket wheel 5^a through the medium of a suitable belt 33.

In operation it will be understood that a
35 rotary motion is imparted from the motor shaft 3^a through the worm wheel 4 to the shaft 5, and that through the belt connection of the sprocket wheel 5^a and wheel 32 rotary motion is contributed to the shaft 8 and its
40 roller 10. Through the chain belt connection of the rollers 10 and 11 a rotary motion is imparted from one of said rollers to the other and through the medium of the connecting chains 22 a connection between the
45 chain belt 18 and the belts 16 and 17 is pro-

vided, which insures a traveling motion of said belts about the wheels 15. It will thus be understood that the sign cards successively arranged upon the traveling carrying mechanism will move successively past the
50 opening tube of the casing 1.

It is obvious that a sign displaying device of the character described may be effectively utilized in public places.

While the elements shown and described
55 are well adapted to serve the purpose for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be
60 made within the scope of the appended claim.

I claim—

In a sign displaying mechanism, the combination with a casing having a display
65 opening therein, of a vertical shaft journaled in said casing at each end thereof, means for imparting rotation to one of said shafts, a longitudinally yieldable mounting for the other of said shafts, a sprocket wheel
70 centrally mounted upon each of said shafts, a chain belt passing over said sprocket wheels, a pair of vertical rollers mounted upon each of said shafts, one of said rollers being located upon each side of the corre-
75 sponding sprocket wheel, a ball race containing plate carried by the outer end of each of said rollers, a belt pulley mounted upon the upper and lower end of each of the shafts, vertical roller bearings between said belt
80 pulleys and the shafts, ball race containing plates carried by the inner side of said belt pulleys, balls disposed in said ball races, belts passing around said belt pulleys, and display card supporting members connecting
85 said belts and attached to said chain belt.

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