

(No Model.)

2 Sheets—Sheet 1.

J. S. YULE.

AUTOMATIC ADVERTISING APPARATUS.

No. 484,576.

Patented Oct. 18, 1892.

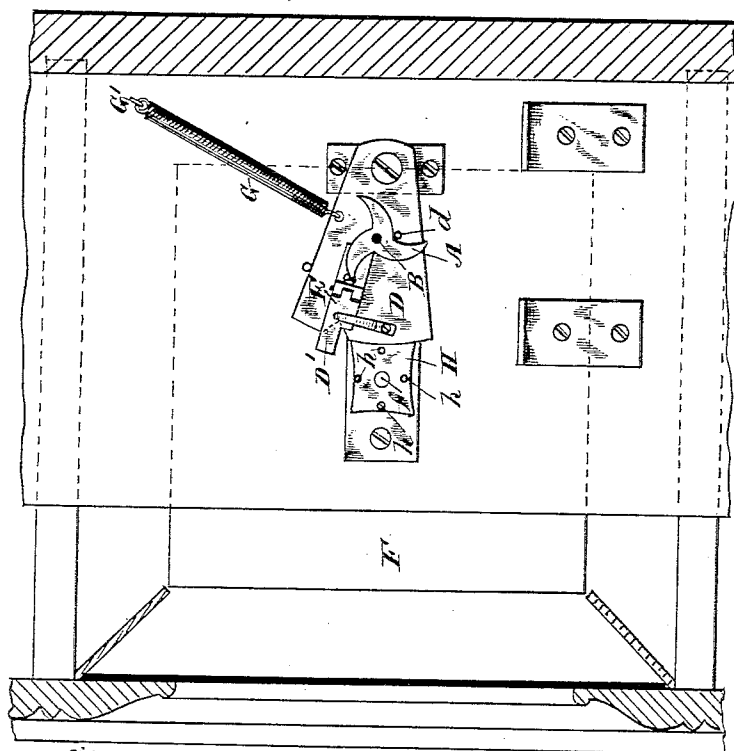


Fig. 2.

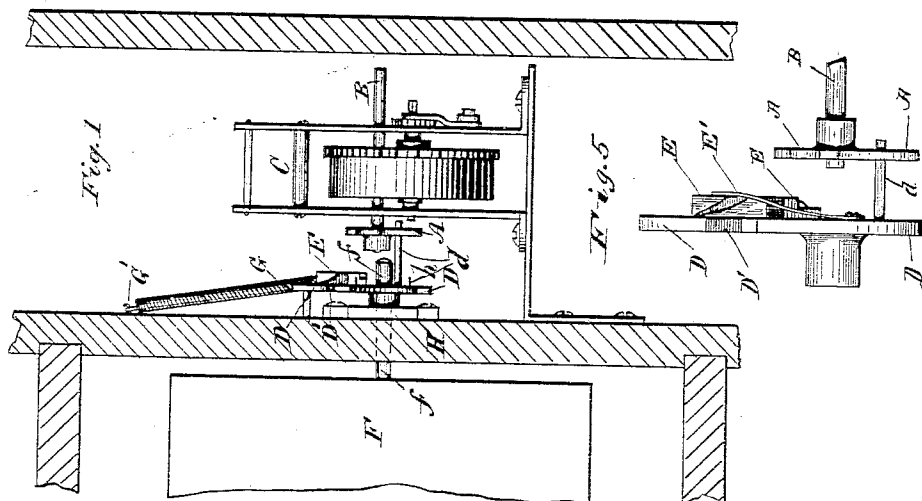


Fig. 1.

Fig. 5.

Witnesses:—
Benj. Miller.
W. R. Murray—

Inventor:—
John Stirling Yule,
By Robert Behrens,
att'y.

(No Model.)

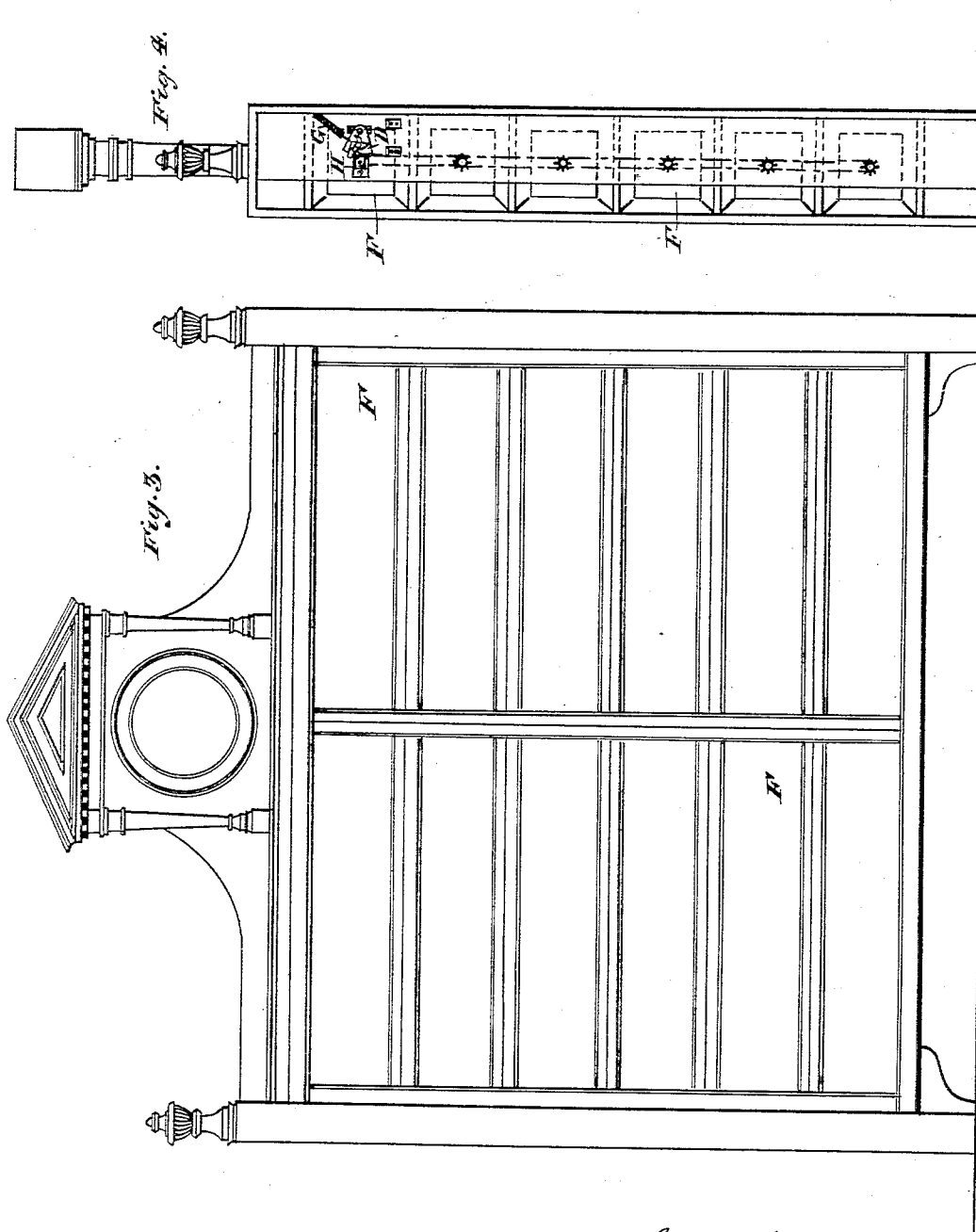
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UNITED STATES PATENT OFFICE.

JOHN STIRLING YULE, OF GLASGOW, SCOTLAND.

AUTOMATIC ADVERTISING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 484,576, dated October 18, 1892.

Application filed September 11, 1891. Serial No. 405,441. (No model.) Patented in England July 18, 1891, No. 12,225.

To all whom it may concern:

Be it known that I, JOHN STIRLING YULE, commission agent, a citizen of the United Kingdom of Great Britain and Ireland, residing at 139 West George Street, Glasgow, in the county of Lanark, Scotland, have invented new and useful Improvements in Apparatus for Automatically Displaying Advertisements, Pictures, and the Like, (which have not been patented in any country except Great Britain by Letters Patent, dated July 18, 1891, No. 12,225;) and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art or manufacture to which it relates to make and use the same.

This invention relates to apparatus for automatically displaying advertisements, photographs, or other pictures and for like purposes; and the improvements have for their object the provision, in conjunction with ordinary clockwork mechanism and with one or more rollers or drums whereon the matter to be displayed is contained, of an escapement which shall automatically and at any desired intervals cause the roller or rollers to be partially rotated and so as to display at each such partial rotation a different subject-matter.

In the accompanying drawings, forming part of this specification, and wherein like parts are indicated by like letters of reference in the several views, Figure 1 is a fragmentary view in elevation, partly in section, of an apparatus embodying my invention. Fig. 2 is a similar view at right angles to Fig. 1. Fig. 3 is a front elevation, and Fig. 4 an end view, of an apparatus in which my improvements are contained.

Referring to the drawings, the escapement is shown consisting of a cam A, keyed upon the main spindle B of a clockwork C, and of a lever-arm D, separately centered and carrying a pin *d*, projecting from its side at right angles, and against which the cam A acts. The forward end of the lever D is curved and has a notch D' about midway in its face. There is also attached to it by screws or otherwise one extremity of a spring or pawl E, whose face end projects beyond the curved face at or near the notch D'.

The roller or drum F, which is shown broken off in Fig. 1, has upon its spindle *f* a square

or polygonal plate H, each side of which is curved to correspond with the curved end of the lever D, against which it bears, so as to lock the roller or drum in position after each partial rotation. There is also connected to the lever D one end of a spiral or like spring G, whose opposite extremity is attached to a fixed part of the mechanism at G', and from the plate H on the end of the drum-spindle there projects a number of pins *h*.

The action is as follows: When the wider part of the cam A in its rotation bears upon the pin *d*, projecting from the lever D, the lever is depressed and its spring or pawl E rides over one of the pins *h*, projecting from the square plate H, the movement continuing until the upper edge of the spring-pawl E is below the said pin *h*, and the wider part of the cam A at that moment passing out of contact with the lever D the said lever is by the action of the spiral spring G drawn back, and in so moving the spring-pawl E acts to give the drum F a partial rotation. The spring-pawl is hinged or jointed in its length to enable it to override the pins *h* in the downward movement, the jointed forward end when the downward motion is completed being forced under one pin *h*, so as to engage with it by the spring E', attached to the lever D.

Figs. 3 and 4 are front and end views showing a frame or case containing a number of drums F, operated by the improved apparatus.

The drums may be operated, as indicated, by chain-and-pinion or other gearing from a single clockwork arrangement, or they may be operated in pairs or singly by separate clockwork mechanism constructed as hereinbefore described. When the drum F is placed vertically, the spring-pawl E is hinged at or about the middle, as shown at Fig. 2.

The drums, which may have any number of sides, may in each case be fitted with glazed panes and illuminated at night.

The cam A may be formed with any desired number of notches and may be fitted on any rotating shaft.

Having now described the invention, what I desire to claim and secure by Letters Patent is—

1. In an apparatus for automatically displaying advertisements, pictures, and the like, the combination, with one or more roll-

ers or drums whereon the matter to be displayed is contained, of a motor mechanism, an escapement mechanism including a cam carried by the main spindle of the motor mechanism and a pivoted lever provided with a pin with which said cam coacts, and a plate secured to the end of the spindle of the display-drum and with which said escapement mechanism co-operates, substantially as set forth.

2. In an apparatus for automatically displaying advertisements, pictures, and the like, the combination, with a drum or roller suitably supported in a frame or casing and having its spindle provided at one end with plate H, studded with pins, as *h*, and a motor mechanism having its main spindle provided with cam A, of lever-arm D, separately centered and provided with a pin, as *d*, a spring or pawl secured to lever-arm D, and a spring operating to restore said lever-arm, when depressed, to the normal position and cause said pawl to give to the drum a partial rotation, substantially as set forth.

3. The combination, with the supported drum or roller F and the clockwork mechanism C, of cam A, keyed upon the main spindle of the clockwork mechanism, the lever-arm D, separately centered and carrying pin *d* in its side and curved at its forward end, spring or pawl E, secured to the side of said lever-arm, with its face projecting beyond the curved end of the lever-arm, the studded plate H, secured to the end of the drum's spindle and having its sides curved to correspond with the curved end of the lever-arm D, and spring G, connected to the lever-arm D at one end and at its opposite end to the frame of the apparatus, substantially as set forth.

In witness whereof I have hereunto set my hand and seal this 1st day of August, 1891.

JOHN STIRLING YULE. [L. S.]

Witnesses:

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