(No Model.) 3 Sheets—Sheet 1.

E. S. BOYNTON.

INFORMATION TABLET.

No. 307,705. Patented Nov. 4, 1884.

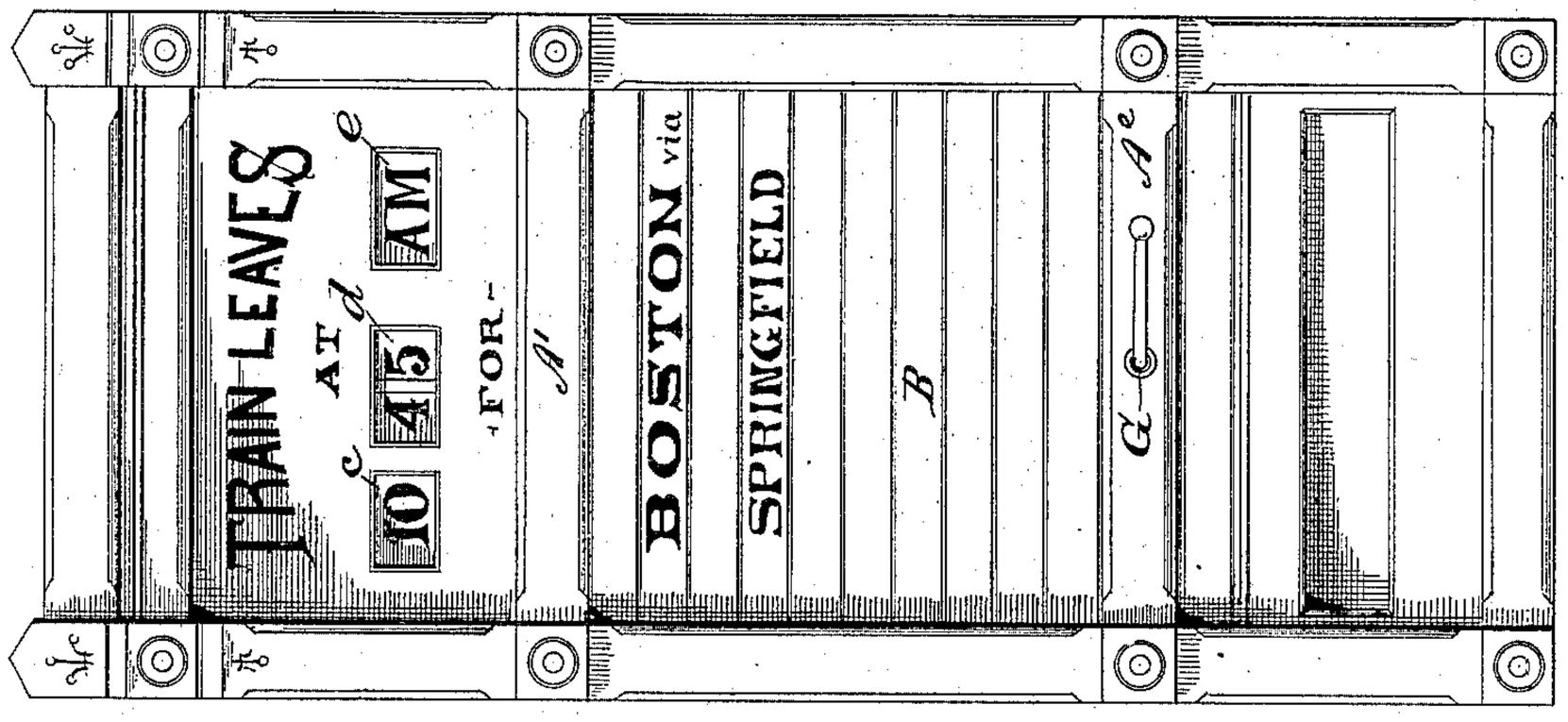


Figure 2.

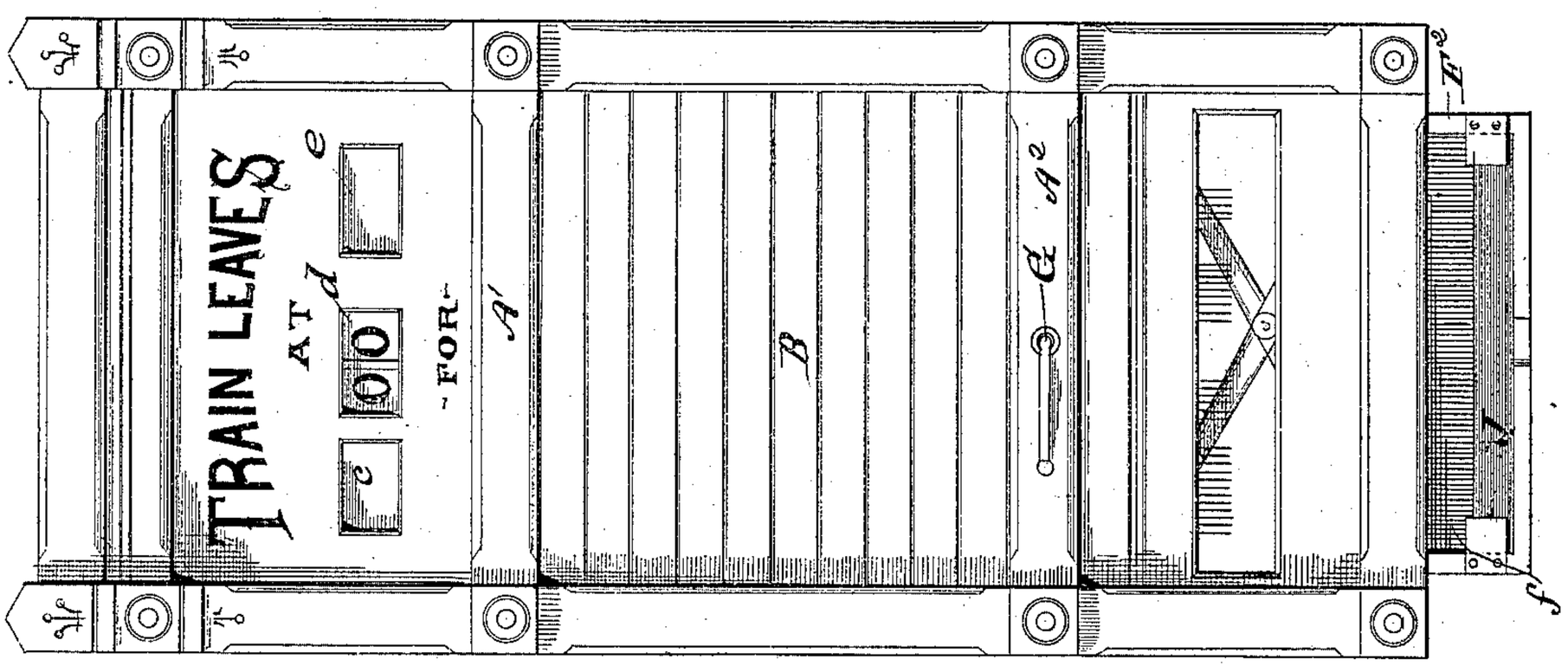


Figure 1.

Witnesses.
John W. Ripley
Oscar Mather

Inventor.
Edward Stanley Boynton
by L. J. Gordon, his Atty.

(No Model.) 3 Sheets—Sheet 2.

E. S. BOYNTON.

INFORMATION TABLET.

No. 307,705. Patented Nov. 4, 1884.

Fig. 3.

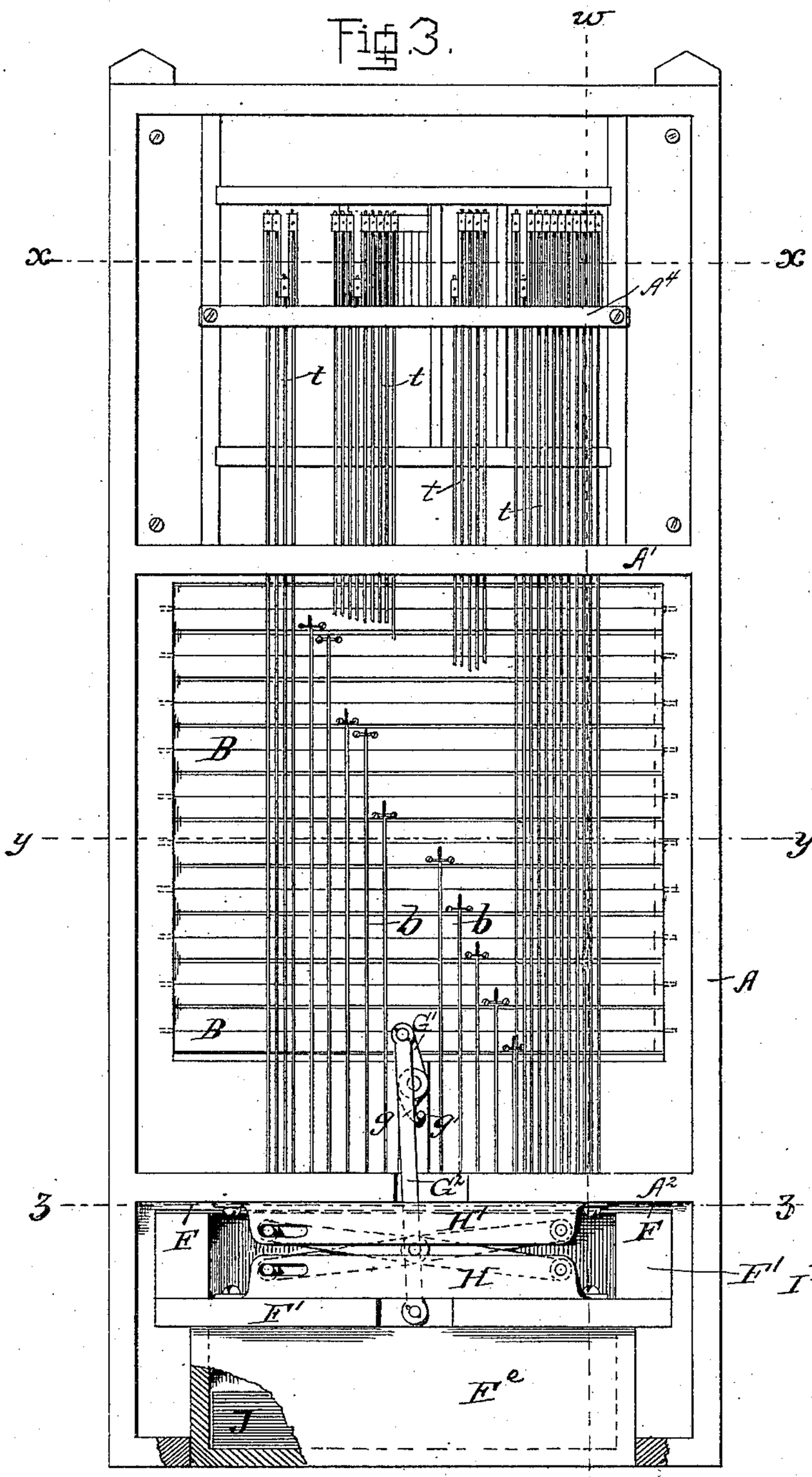
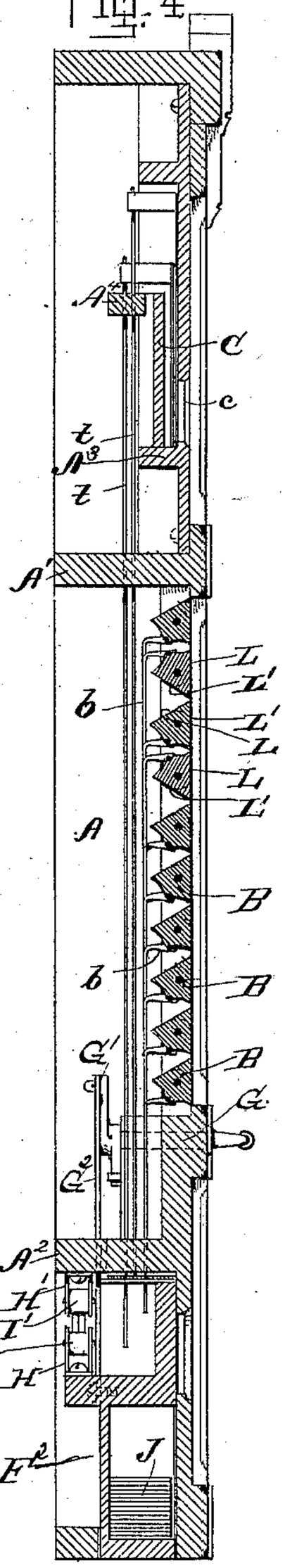


Fig. 4.



w

Witnesses.
John W. Copley
Oscar Mather

Inventor.
Edward Stanley Boynton
by S. J. Gordon, his Atty.

(No Model.) 3 Sheets—Sheet 3.

E. S. BOYNTON.

INFORMATION TABLET.

No. 307,705. Patented Nov. 4, 1884.

Fig. 5

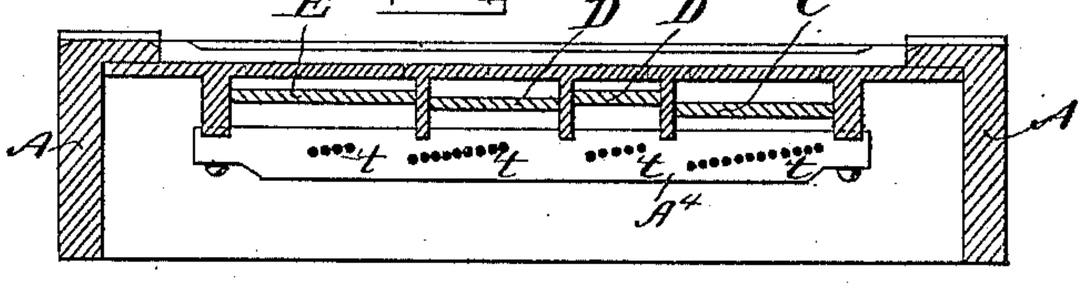


Fig. 6.

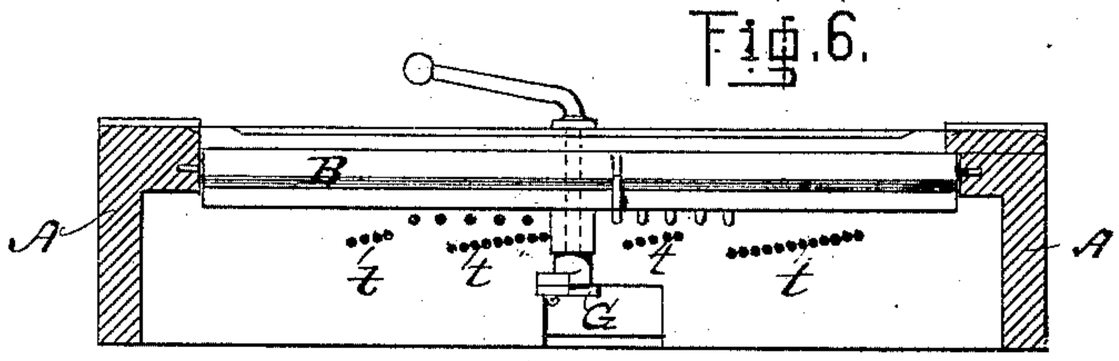


Fig. 7.

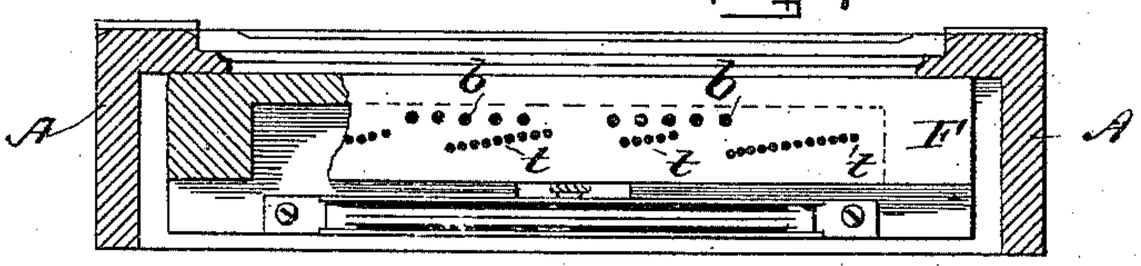


Fig. 8.

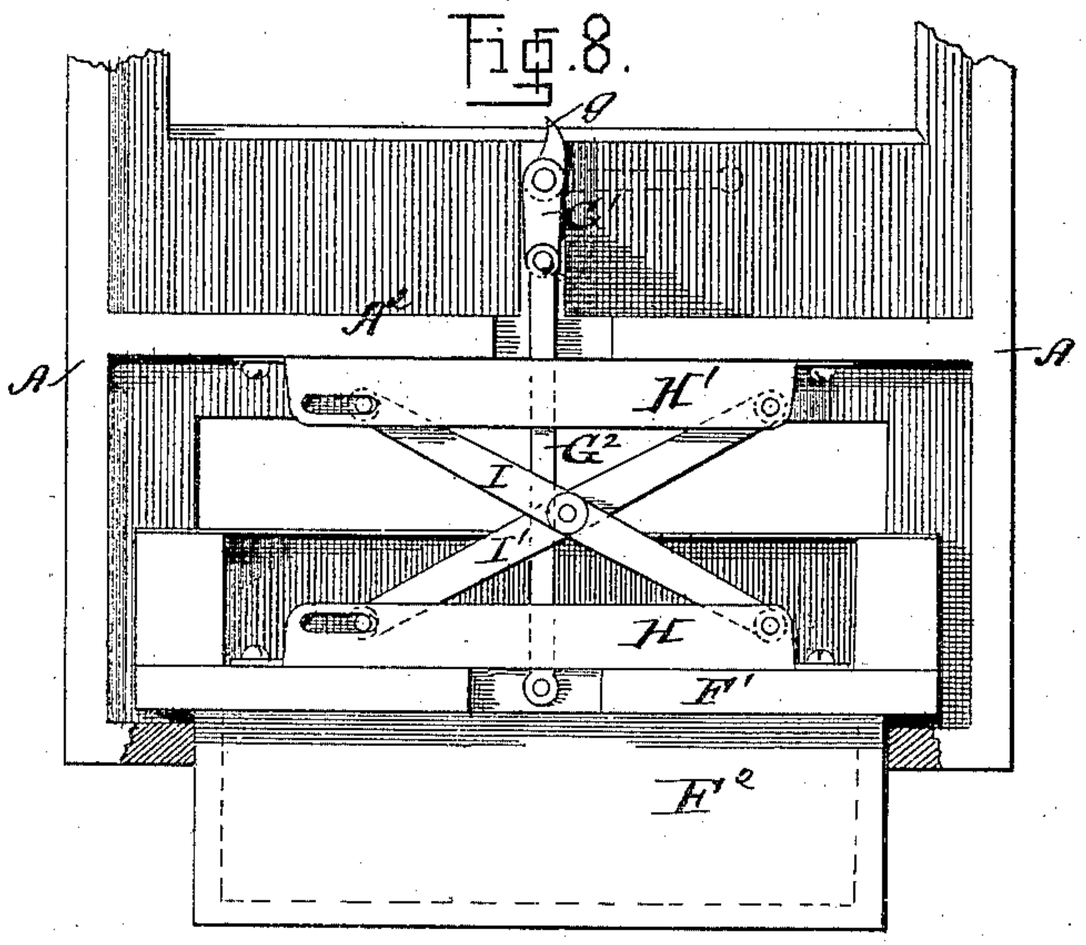


Fig. 9

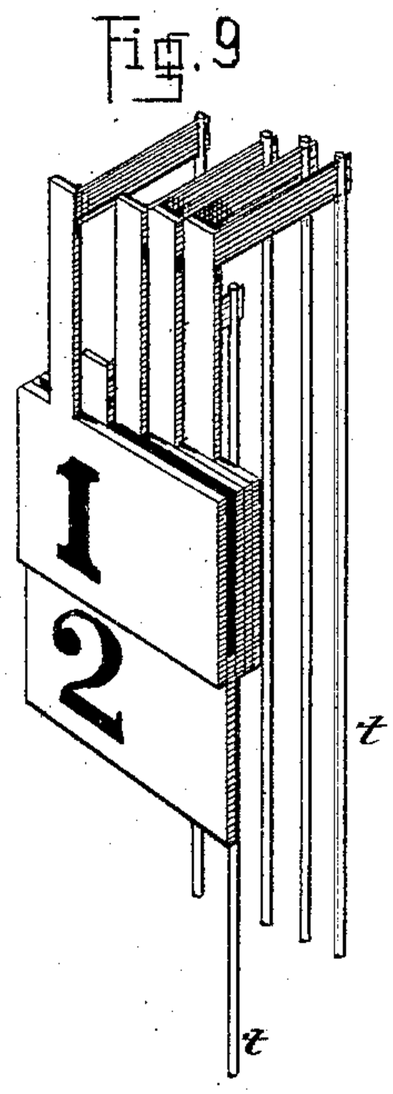


Fig. 10.

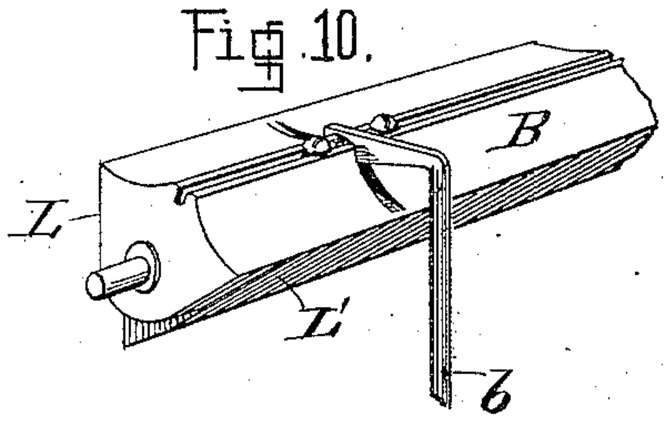
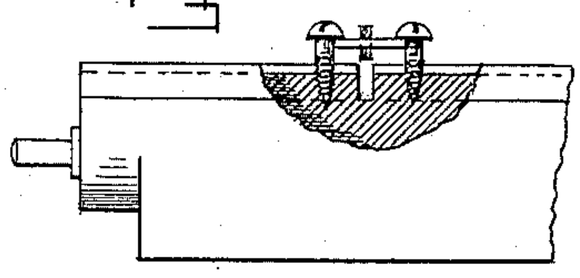


Fig. 11.



Witnesses:
John W. Ripley
Oscar Mather

Inventor:
Edward Stanley Boynton
by S. J. Gordon, his Atty.

UNITED STATES PATENT OFFICE.

EDWARD STANLEY BOYNTON, OF BRIDGEPORT, CONN., ASSIGNOR TO THE WHEELER & WILSON MANUFACTURING COMPANY, OF SAME PLACE.

INFORMATION-TABLET.

SPECIFICATION forming part of Letters Patent No. 307,705, dated November 4, 1884.

Application filed January 5, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD STANLEY BOYNTON, of Bridgeport, county of Fairfield, State of Connecticut, have invented a new and useful Improvement in Information-Tablets, which is fully set forth in the following specification and accompanying drawings.

This invention relates to information-tablets of the type described in United States Letters Patent No. 258,529, granted to me on the 23d day of May, 1882.

My invention consists of an improved information-tablet for railroad-depots, designed more especially to indicate the time of departure and the destination of trains.

The improvement consists of the application of a time-indicator composed of movable time-signs controlled by the same Jacquard key which controls the station-signs; also, of sundry new and useful details of construction, all of which improvements are set forth specifically in the claims at the close of this specification.

In order that my invention may be clearly understood, I have illustrated in the annexed drawings, and will proceed to describe, a form thereof which has been successfully used.

Figure 1 is a front elevation of the information-tablet as it appears when the key-holder is lowered for the removal or insertion of a Jacquard key. Fig. 2 is a front elevation of the information-tablet as it appears when set to indicate the time of departure and the destination of a train. Fig. 3 is a rear elevation thereof, set as shown in Fig. 2, some of the time-sign tumblers being partially broken away to avoid confusion. Fig. 4 is a vertical transverse section on line *w w* of Fig. 3. Fig. 5 is a horizontal section on line *x x* of Fig. 3. Fig. 6 is a horizontal section on line *y y* of Fig. 3. Fig. 7 is a horizontal section on line *z z* of Fig. 3. Fig. 8 is a rear elevation of the lower end of the information-tablet, showing the key-holder as lowered. Figs. 9, 10, and 11 illustrate details. Figs. 3 to 8, inclusive, are drawn on a larger scale than Figs. 1 and 2, and Figs. 9 to 11, inclusive, on a still larger scale; and the same letters of reference indicate identical parts in all the figures.

The various devices of the information-tablet are arranged in a shallow rectangular box-frame, A, subdivided into three compartments by the cross-bars A′ and A², the face side exhibiting three panels. The open center panel is occupied by the movable station-signs B, pivoted in the side bars of the box-frame, and each carrying a pivoted pendent tumbler, *b*, projecting, with its lower end through a guide-hole in the cross-bar A², down into the compartment containing the key-holder.

Instead of making the station-signs of square bars, as shown in my aforesaid patent, I give them substantially the cross-sectional form shown in Figs. 4 and 10, the lettered side L and the blank side L′, which are alternately exposed, forming the adjacent sides of an equilateral triangle in cross-section, while the third side is by preference provided with a central grooved ridge for the attachment of the tumblers *b*. By this form of the station-signs I obtain the widest flat sign-surface possible without any waste spaces between the signs, all of which is important, because I am thereby enabled to hang a great number of conspicuous signs in a panel of comparatively limited height. At one end the station-signs B project a little behind the stile of the panel, in order that their movement may be limited by said stile, the angle between the blank and lettered sides being properly rounded at the thus projecting end, as shown in Figs. 10 and 11.

For indicating the time of the departure of trains I use four sets of time-signs—namely, one set of hour-signs, C, two sets of minute-signs, D D′, and one set of solar-signs, E. The several signs of each set are arranged behind one another, the set of hour-signs behind the reading-hole *c* in the upper panel, the two sets of minute-signs, side by side, behind the reading-hole *d*, and the solar-signs behind the reading-hole *e*. All the movable time-signs are made quite thin and arranged closely together, so that even the rearmost one may be readily read through the reading-hole in front of it when exposed. The rearmost time-sign of each set is fixed and forms the back of a box by which the movable time-signs are confined. Besides the stationary hour-sign, which bears

the figure 12, there are twelve movable hour-signs, the one next to the reading-hole being a blank, and the others being marked, respectively, 1, 2, and so on, the last one bearing the figure 11. The stationary minute-sign of the set marked "D" bears the figure 5, and that of the set marked "D'" the figure 9. In the set D are five movable signs marked, respectively, 0, 1, 2, 3, 4, while the set D' contains nine movable signs marked from 0 to 8. The minute-signs marked 0 are next adjacent to the reading-hole. The stationary solar-sign is marked "Night;" besides which there are four movable solar-signs, of which the one next to the reading-hole is a blank, while the others are marked, respectively, "Noon," "A. M," "P. M." In their lowest position, in which their marked faces are directly opposite the reading-holes, the time-signs rest on the horizontal bar A^3, which forms the bottom of the boxes in which they move. Each time-sign is rigidly connected to the upper end of a separate vertical tumbler, *t*. These tumblers *t* pass through guide-holes through the cross-bars A^4, A', and A^2 of the frame, projecting with their lower ends into the compartment containing the key-holder. The tumblers *t* are arranged in rows behind the tumblers *b*.

The key-holder consists, primarily, of a platform, F, containing as many perforations as there are tumblers *b* and *t*, the perforations being arranged to correspond with the positions of the tumblers, so that the tumblers may pass through them when not intercepted by a key on the platform. This key-platform is secured to a frame, F', which is suspended by a link, G^2, from a crank, G', of a shaft, G, to the outer end of which a winch may be applied for turning it to raise or lower the key-platform. A toe, *g*, formed on crank G', strikes a stop-pin, *g'*, when the key-platform has reached its highest position. In order that the key-platform may move freely and at the same time with great precision, I connect its frame with the cross-bar A^2 by the lazy-tongs connection, composed of the bars H H', fixed, respectively, to cross-bars A^2 and frame F', and the levers I I', pivoted together and connected to the bars H H' in the manner best shown in Figs. 3 and 8. The frame F' is constructed with a shelf, F^2. The height of the whole key-holder from the shelf F^2 to the key-platform F is about equal to the height of the lower compartment of the box-frame A, and shelf F^2 forms the bottom thereof when the key-holder is elevated. When the key holder is lowered, its shelf F^2 is exposed below the box-frame, and an opening, *f*, is cut across the front of the lower compartment, through which opening the keys can be placed upon or removed from the key-platform F when the key-holder is lowered. This opening is covered by the frame F' of the key-holder when raised. The keys J are preferably made of suitable card-board, and are mere flat strips, perforated at the proper points to allow the passage of the tumblers of such signs as are not to be moved in setting the tablet by a key, each key having a special system of perforations for effecting the display of certain predetermined information on the tablet. The keys to be used setting the tablet are stored on the shelf F^2. When the tablet is intended to give successive information repeatedly in the same order, the keys may be collated accordingly on the shelf, to be taken successively from the bottom of the pile, and, after use, returned to the top of the pile. When there is no key on the key-platform, the blank side of the station-signs will be exposed and the time-signs will all be ranged in line with the reading-holes.

To indicate the time of the departure of a train, I prefer to raise all the time-signs except those required for the indication, because that demands the fewest perforations in the key, although it would only be necessary to raise such of the time-signs as are in front of those to be exposed.

I claim as my invention—

1. The combination, substantially as before set forth, of a panel of pivoted triangular signs, a tumbler for each sign, and a perforated movable key-platform adapted to operate a key for exposing any one or any predetermined selection of said signs.

2. The combination, substantially as before set forth, of a series of signs ranged behind one another and collectively behind a reading-hole, a tumbler for each sign, and a perforated movable key-platform adapted to operate a key for exposing any one of the signs required.

3. The combination, substantially as before set forth, of the key-holder, the crank and link for suspending and operating it, and the lazy-tongs connection for connecting the key-holder to the main frame of the tablet.

4. The combination, substantially as before set forth, of the movable key-holder, constructed with a shelf for supporting a pile of keys, and the lower compartment of the box-frame, having an open bottom and an opening across the front.

EDWARD STANLEY BOYNTON.

Witnesses:
JOHN W. RIPLEY,
O. MATHER.