

No. 626,805.

Patented June 13, 1899.

F. E. COATES.
RATE CABINET AND INDEXER.

(Application filed Jan. 26, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

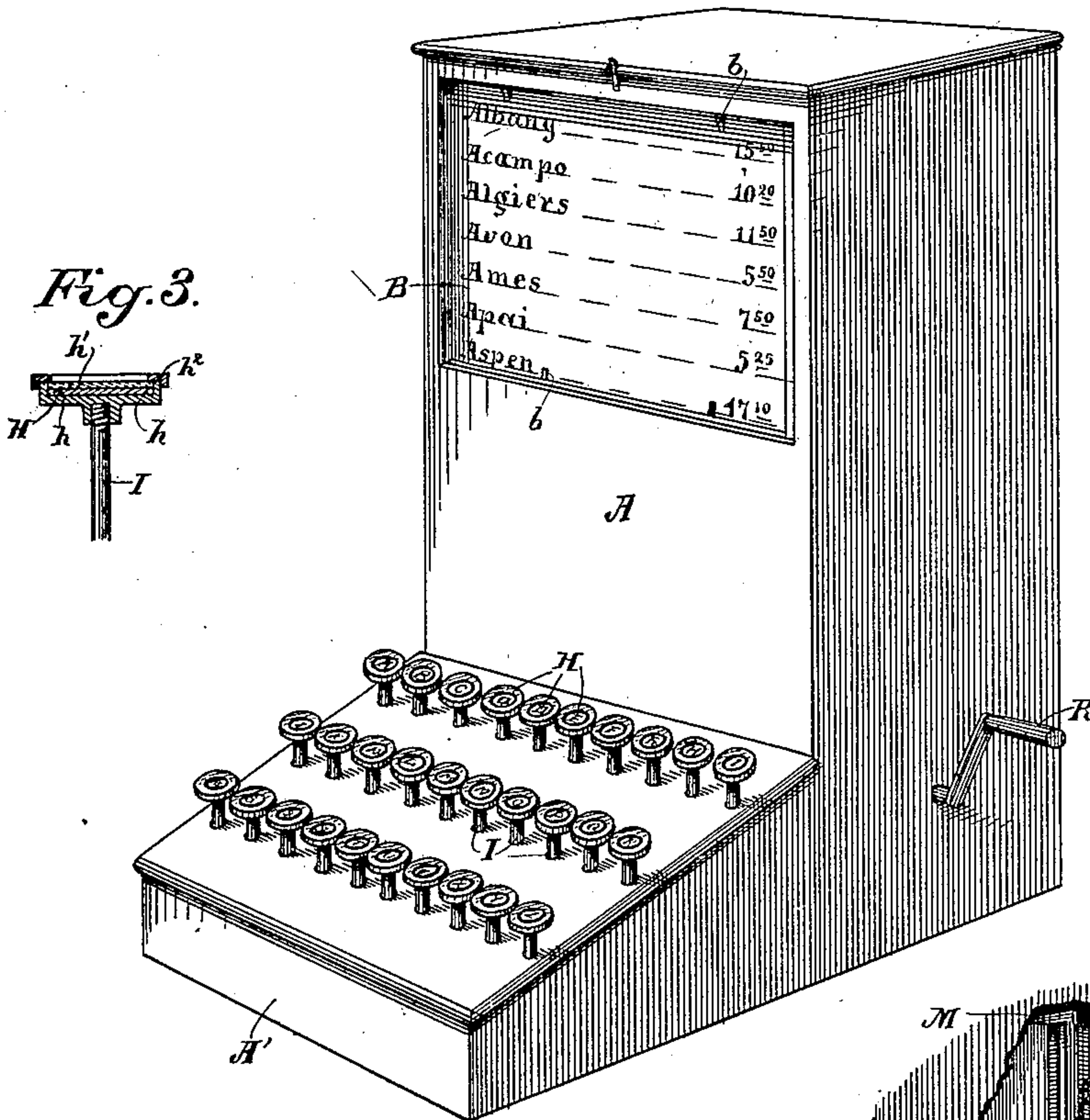


Fig. 3.

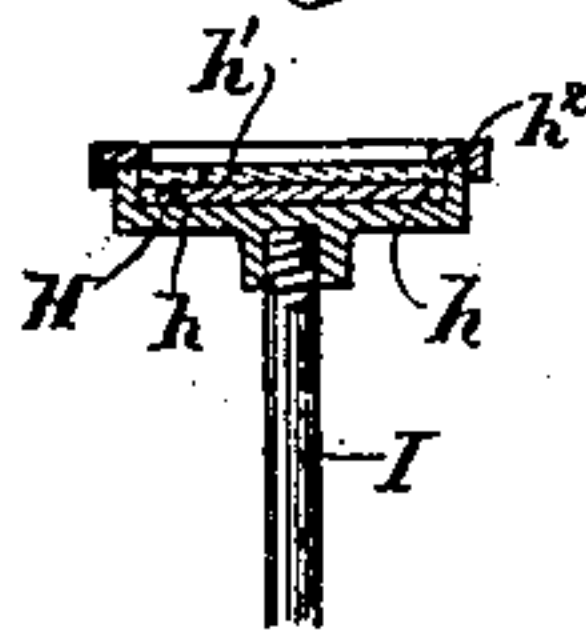
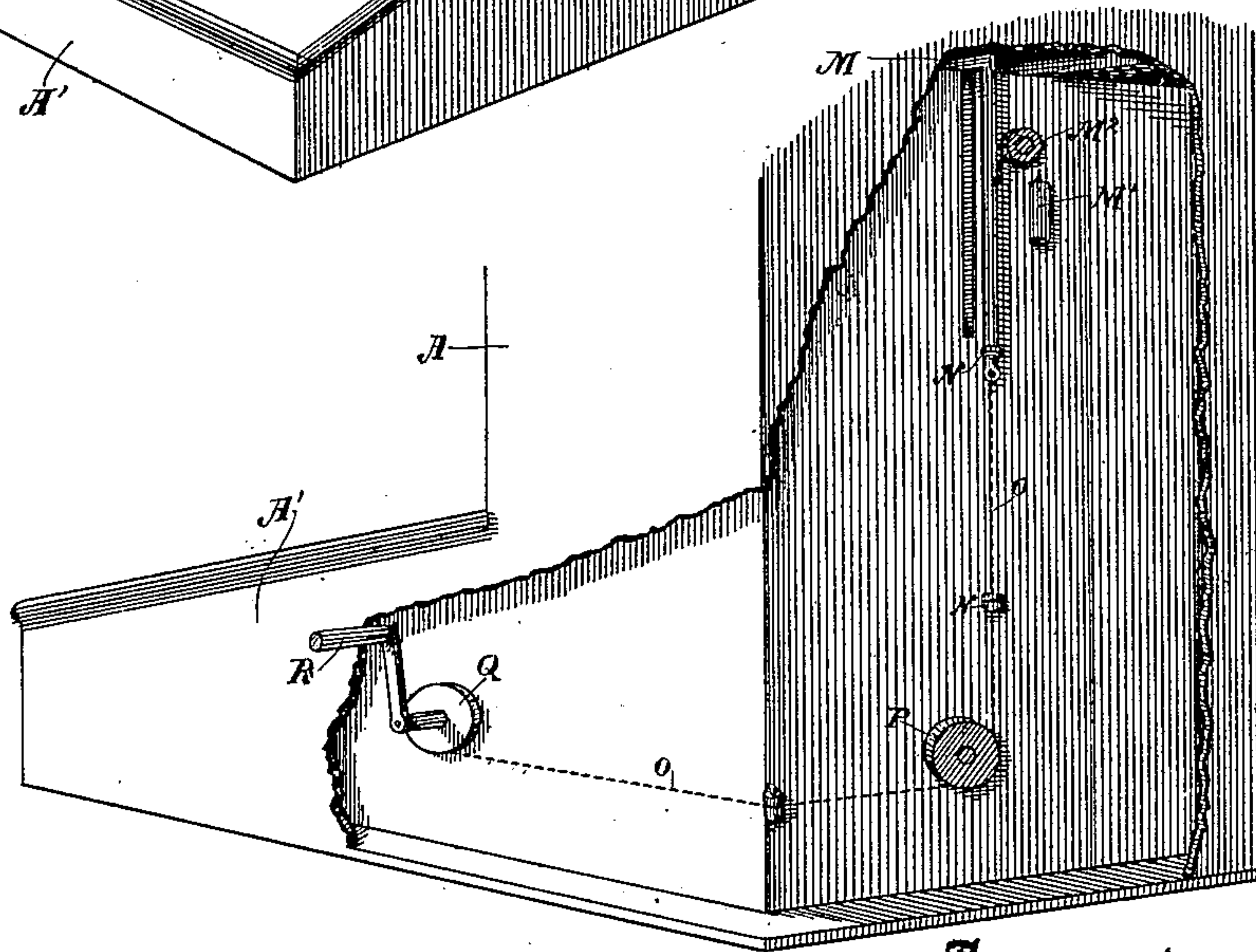


Fig. 2.



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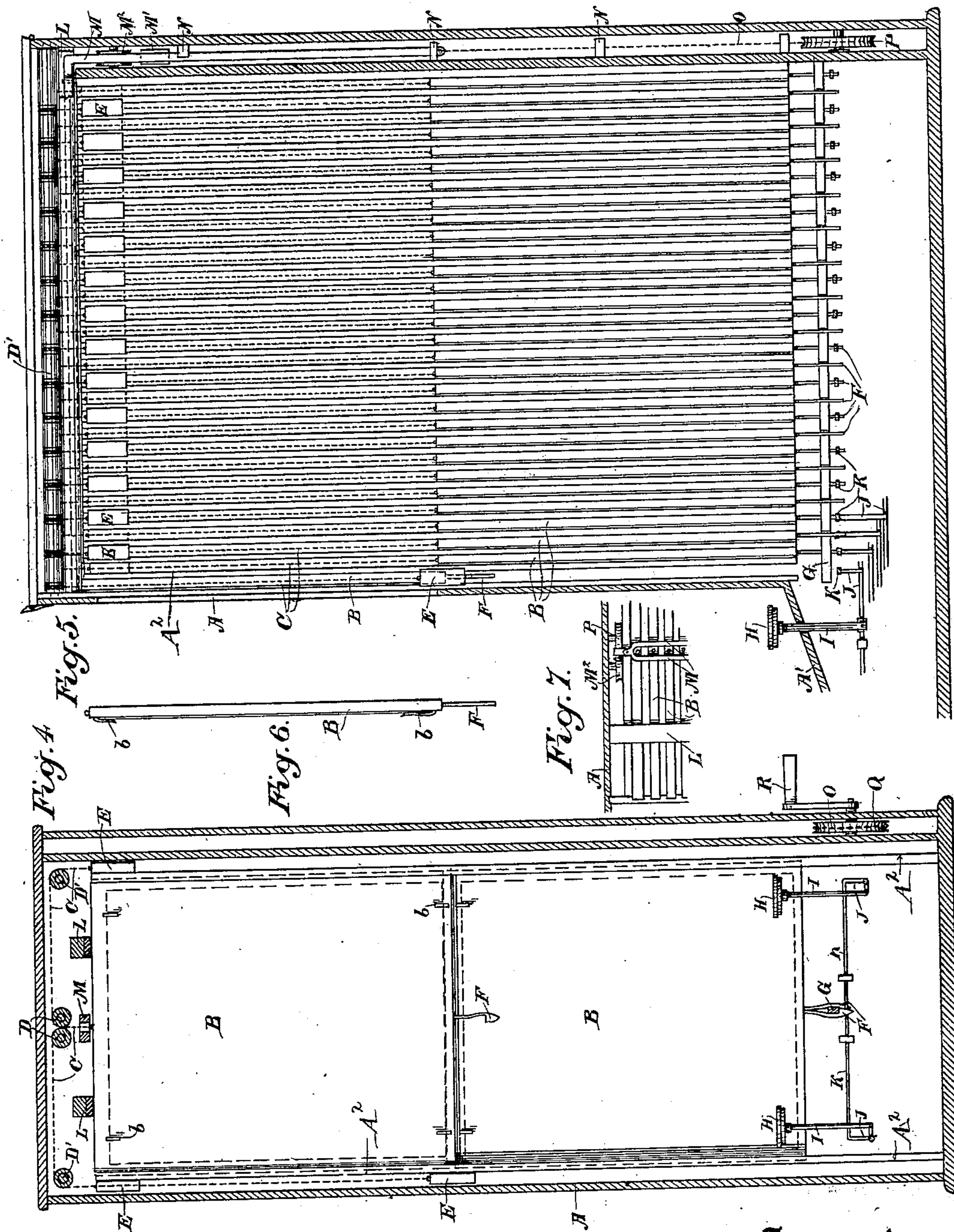
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2 Sheets—Sheet 2.

(No Model.)



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UNITED STATES PATENT OFFICE.

FRANKLIN EIKOFF COATES, OF MONTPELIER, CALIFORNIA.

RATE CABINET AND INDEXER.

SPECIFICATION forming part of Letters Patent No. 626,805, dated June 13, 1899.

Application filed January 26, 1899. Serial No. 703,481. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN EIKOFF COATES, a citizen of the United States, residing at Montpelier, county of Stanislaus, State of California, have invented an Improvement in Rate Cabinets and Indexers; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device which is especially designed for exhibiting rate-sheets, such as are used in railway-offices for the purpose of giving freight, passenger, or other rates between different stations.

It consists in the parts and the constructions and combinations of parts hereinafter described and claimed.

Figure 1 is a perspective view of my cabinet. Fig. 2 is a rear view of the same with the case partially broken away. Fig. 3 is a sectional detail of one of the keys. Fig. 4 is a front view, its front cover being removed. Fig. 5 is a side view, its cover being removed also. Fig. 6 is an edge view of one of the tablets. Fig. 7 is a top view of a portion of the tablets.

In railway-offices a system of "rate-sheets," as they are called, is employed in which the passenger or freight rates or other like matter are arranged alphabetically or otherwise upon sheets, so that the station agent may by examining these sheets inform himself as to the rates between various stations. The great number of combinations necessary upon any line of railway make these sheets very cumbersome and it requires considerable time to find and determine the particular rate to be charged. In my invention I provide an apparatus in which these rate-sheets are alphabetically arranged and the names and entries thereon so reduced that any one sheet can be easily examined and a means whereby the required sheet may be separated from all the others and exposed for inspection.

A is the case, which may be of any suitable or convenient form for the purpose. As here shown, it consists of an elevated rear portion having guides A^2 at the sides, within which vertically-movable tablets B are adapted to slide. The vertical depth of the case is such that when the tablets are all located at either top or bottom there will be a sufficient space remaining so that any one of the tab-

lets may be withdrawn from the remainder and completely exposed in the open space. In the present case I have shown the tablets as normally located in the lower part of the case, and when either one of them is to be exposed it is moved into the upper part of the case; but it will be manifest that the arrangement and operation might be reversed without materially altering the character and operation of the device. Each of the tablets is provided with clasps b , which are designed to receive and hold the rate-sheet which is to be attached to the tablet, so that any changes which are made in these sheets can be readily effected by removing the old sheets and slipping the new one into the clasps. The tablets are here shown as centrally suspended by cords C, which pass over guide-pulleys D, thence extend outwardly in the upper part of the apparatus and over other guide-pulleys D' , and thence extending down to counterbalance-weights E, which are movable in suitable chambers or ports at the sides of the case.

In order to allow a sufficient amount of room for the considerable number of tablets, with their counterbalance-weights, I have shown the weights as arranged alternately upon opposite sides of the cabinet, the cords in each case leading over the central guide-pulleys and connecting with the centers of the tablets, which are counterbalanced thereby. In this manner I am enabled to dispose of the counterweights without crowding or unduly enlarging the apparatus.

The counterweights are sufficient to normally draw the tablets into the upper part of the case, and when the tablets are not in use they are drawn down and are held in position by means of spring-hooks F, here shown as fixed to the lower part of the tablets and adapted to engage with a bar G, which extends from front to rear beneath the center of the tablets, so that when any tablet has been drawn down its hook F will pass the bar G and engage with it, and thus retain the tablet in place. These hooks are also arranged alternately upon opposite sides of the bar, and when a tablet is to be exposed the hooks are disengaged by means of keys H, which are arranged in the projecting front portion A' of the case, these being arranged somewhat in the manner of a type-writer, with as

many keys H as there are tablets to be operated thereby. If, for instance, there may be as many as thirty of the keys, they can be arranged in three or other number of rows, and each key will control a single tablet, each tablet having one or more letters, figures, or desired character thereon, the subdivision being so considerable that no one tablet and sheet will show so great a number of places and rates as to make them difficult of inspection. The keys H have vertical stems I, and these are connected by bell-crank levers, as shown at J, with transversely-movable rods K. Each of these rods is so disposed that it will press upon and disengage one of the spring-hooks F, so that whenever a certain key is pressed down the hook of the correspondingly-marked tablet will be disengaged from the bar G and the counterweight will immediately draw the tablet up and expose it for inspection.

L L are bars extending from front to rear in the upper part of the cabinet and may have rubber or other soft faces, against which the tablets strike when they rise into the upper part of the case, thus preventing noise and shock.

The key-heads H are made in the form of shallow cups having small projecting points h in the bottom, and the letter or indicator for the key may be imprinted upon a circular disk, which is placed in this shallow cup and pressed down upon the points h , so as to prevent its turning around. Over this is placed a glass or other transparent plate h' , and the whole is held together by an annular clamping-ring h^2 , which screws down upon the cup-shaped head, thus forming an easily removable or changeable indicator for each key, which corresponds with the tablet-sheet which is operated thereby. Whenever a tablet has thus been thrown up, it must be again drawn down after inspection. This is effected by a bar M, which extends across centrally above the tablets and which, as shown in Fig. 7, is slotted or divided, so that the counterbalance-cords C, connecting with the tablets, may pass through the slot in the bar M. This bar is here shown as bent at right angles at the rear of the case and extending down through suitable guides, as at N. It is slidable through these guides by means of the following connections:

O is a cord connecting with the lower end of the bar M and passing around a guide-pulley P, which is led forward to a winding-pulley Q, which is operated by a crank R. When this crank is turned, the cord, winding upon the pulley Q, will pull the bar M down and, pressing upon the center of the tablet B, will draw the latter down until its hook F is engaged with the bar G. As soon as the crank is released the bar M will be raised to its normal position by means of a counterweight M', connected with the bar by a cord passing over a guide-pulley, as at M². By this construction I am enabled to expose any one of a large

number of tablets for inspection, and by reason of the great number of these tablets the subdivision of the matter imprinted upon them is so considerable that it takes but little time to locate the particular rate or other matter which it is desired to find.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A rate or similar cabinet consisting of an exterior case, vertically-slidable counterbalanced tablets movable in parallel lines therein, latches by which said tablets are normally locked in the lower part of the case, a disengaging mechanism for each tablet and releasing the same from its latch so that the counterbalance operates to expose the tablet to inspection and an operating-key for each of the tablets.

2. A rate or similar cabinet consisting of a containing-case, vertically-guided counterbalanced tablets containing the rate-sheets, latches by which said tablets are normally retained in the lower part of the case, disengaging devices connected with each of the tablets consisting of correspondingly lettered or numbered depressible keys, connections between the shanks of said keys and the latches whereby the depression of the key disengages the corresponding catch and permits the counterbalance to operate to expose the tablet to inspection.

3. In a rate or similar cabinet, an exterior case, vertically slidable and guided tablets having central cord connections at the upper edges, guiding-pulleys over which the cords pass and counterbalance-weights to which the cords are connected, said weights being disposed alternately upon opposite sides of the case, latches by which the tablets are normally held down and devices whereby either of the tablets may be released and allowed to rise into view.

4. A rate-cabinet consisting of an exterior case, vertically slidable, guided and counterbalanced tablets, with means for removably attaching the rate-sheets thereto, a bar extending centrally from front to rear in the lower part of the case, spring-latches connected with the center of the bottom of each tablet, said latches being disposed to engage the transverse bar alternately from opposite sides, and depression-keys and intermediate connections whereby either of the latches may be released from the bar to allow the tablet to rise above the remaining ones.

5. A rate or similar cabinet, consisting of an exterior case, vertically slidable, guided counterbalanced tablets, with means for removably securing rate-sheets thereto, spring-catches secured to the lower edges of the tablets, a bar extending from front to rear in the lower part of the case and adapted to be engaged by said catches, depressible keys and intermediate connections by which the catches are disengaged and the tablets released so as to be raised by their counterbal-

ance-weights, and elastic bumper-bars extending across the upper part of the case against which the tablets are checked at the end of the upward movement.

5 6. A rate or similar cabinet consisting of an exterior case, vertically slidable guided and counterbalanced tablets, latches by which said tablets are normally retained at the lower part of the case, depressible keys and intermediate connections whereby either of the latches may be disengaged and a tablet released and raised to the upper part of the case by its counterbalance-weight, means for depressing the tablets comprising a vertically-
10 movable guided bar extending across above the tablets, and means whereby said bar may be drawn down to depress any one of the tablets to its latching-point.

20 7. A rate or similar cabinet consisting of an exterior case, vertically slidable, guided and counterbalanced tablets, with means for normally latching them in the lower part of the case, means for disengaging the latches to allow any one of said tablets to rise into
25 the upper part of the case for inspection, a transverse slotted bar extending centrally above the tablets having a vertical arm at

one side and guides within which said arm is slidable; a cord connecting with said arm, guide-pulleys over which said cord passes and a winding pulley and crank whereby the arm may be depressed and any tablet returned to its normal position. 30

8. In a rate or similar cabinet of the character described, a containing-case and vertically-
35 slidable, counterbalanced tablets, latches by which they are normally retained at the bottom of the case, means whereby either of the tablets may be disengaged and allowed to rise to the upper part of the case, a slotted
40 bar extending centrally above the tablets having a vertically-guided arm at one side with cord and winding connections whereby the bar may be drawn down so as to depress any tablet to its latching-point, and a coun-
45 terbalance-weight connected with the depressing-arm, whereby the latter is returned to its normal position when released.

In witness whereof I have hereunto set my hand.

FRANKLIN EIKOFF COATES.

Witnesses:

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HOWARD C. KEELEY.