

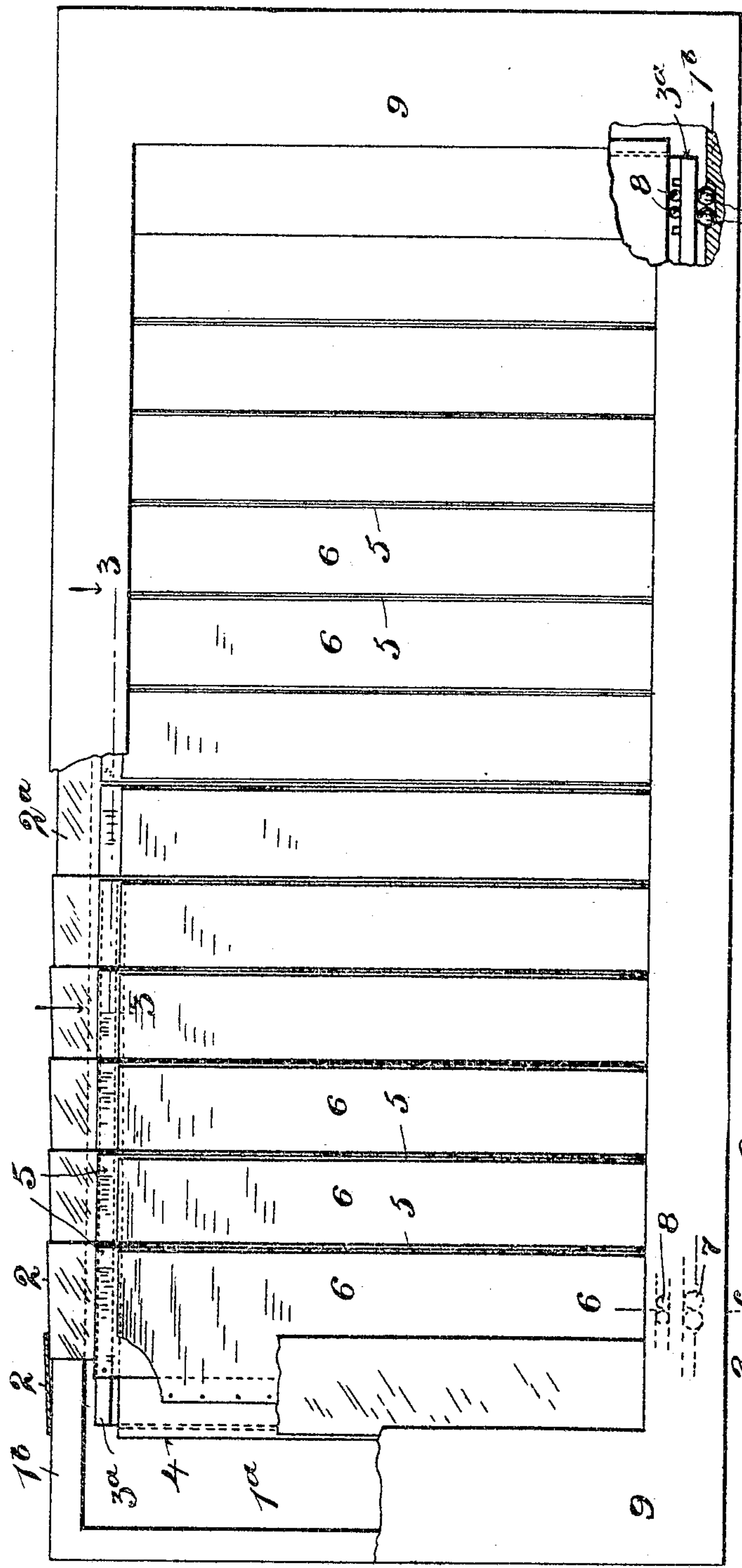
No. 788,126.

PATENTED APR. 25, 1905.

N. B. WOOD.
SIGN.

APPLICATION FILED MAY 17, 1904.

3 SHEETS—SHEET 1.



Witnesses
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W. Hollingshead

Fig. 1.

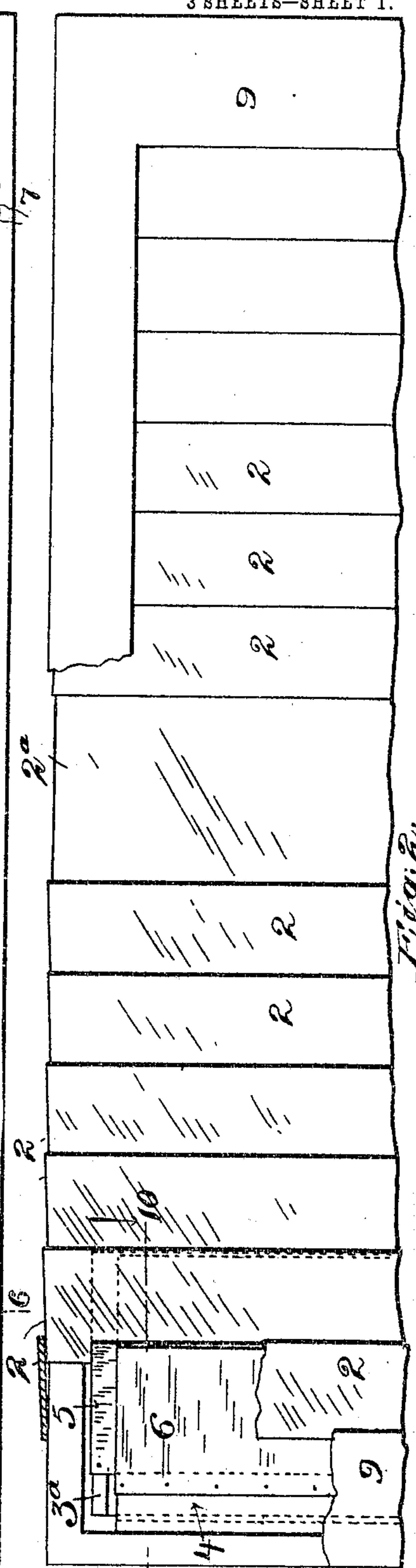


Fig. 2.

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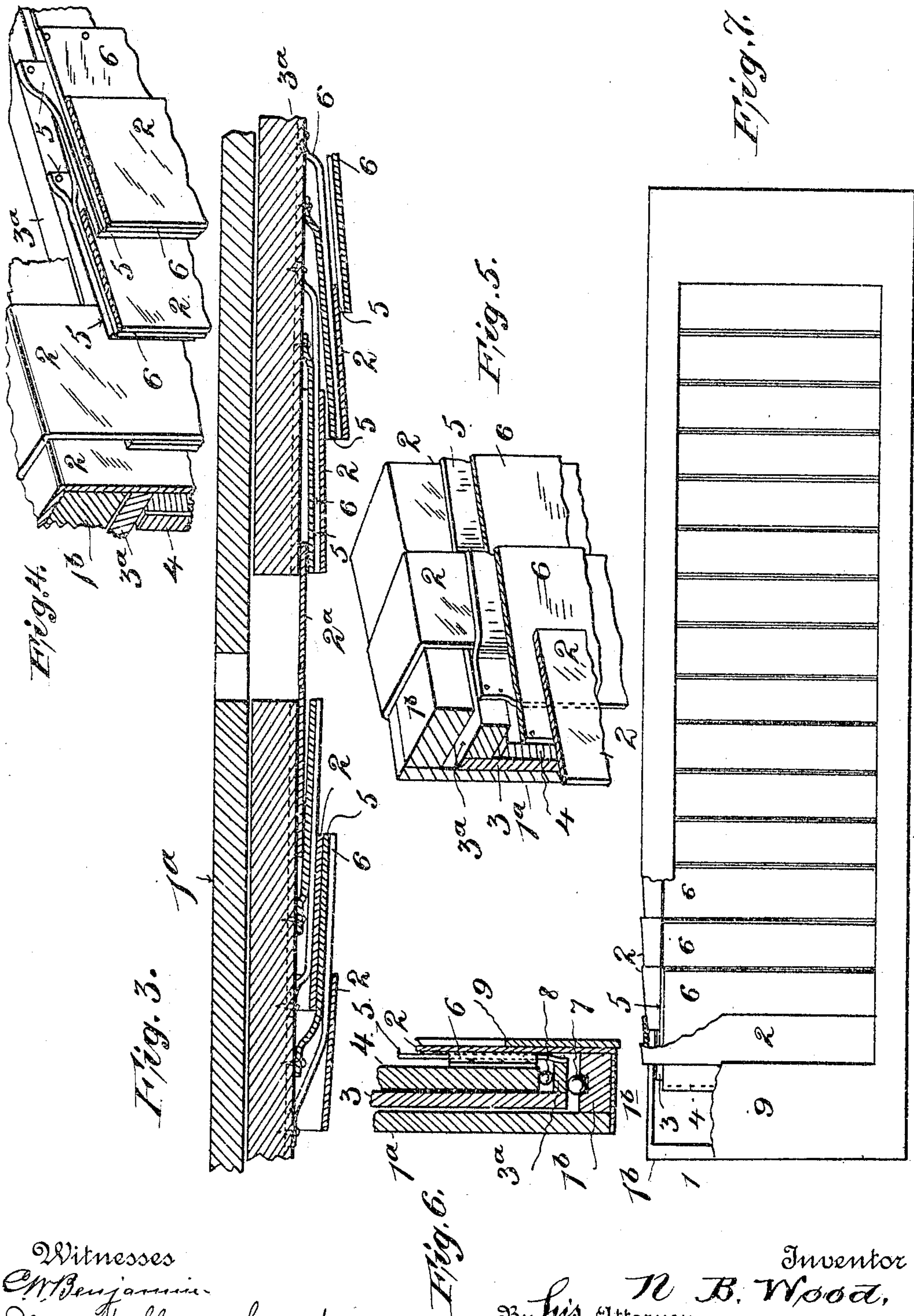
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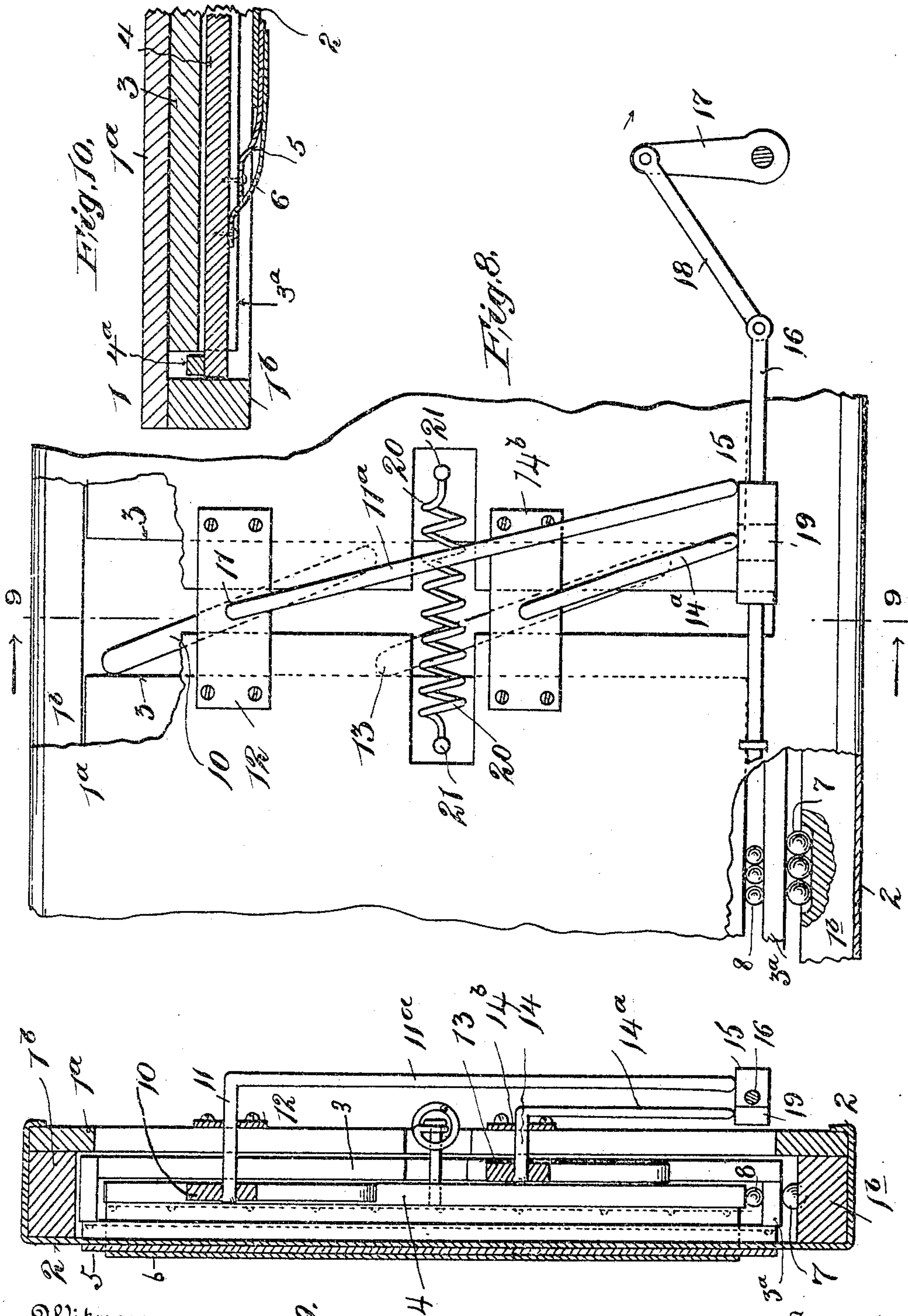
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

NATHAN B. WOOD, OF NEW YORK, N. Y., ASSIGNOR TO THE WOOD
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SPECIFICATION forming part of Letters Patent No. 788,126, dated April 25, 1905.

Application filed May 17, 1904. Serial No. 208,372.

To all whom it may concern:

Be it known that I, NATHAN B. WOOD, a citizen of the United States, residing in New York city, borough of Manhattan, State of New York, have invented certain new and useful Improvements in Signs, of which the following is a specification.

My invention relates to improvements in changeable signs for advertising and other purposes, and has for its object to provide means whereby different displays may be provided successively or in order, as may be desired; and to such end my invention comprises the novel details of improvement that will be more fully hereinafter set forth, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part hereof, wherein—

Figure 1 is a partly-broken face view of a sign embodying my invention, showing the movable members in one position of adjustment. Fig. 2 is a similar view, partly broken away, showing said members adjusted to a different position. Fig. 3 is a horizontal section enlarged, substantially on the line 3 3 in Fig. 1, showing the movable members of the sign on the opposite sides of the center as adjusted in different relative positions. Fig. 4 is a detail perspective view, partly in section, showing the relative arrangement of the parts of the sign and illustrating the parts at the right-hand side of Fig. 3. Fig. 5 is a substantially similar view illustrating the parts at the left-hand side of Fig. 3. Fig. 6 is a vertical detail section substantially on the line 6 6 in Fig. 1. Fig. 7 is a partly-broken face view of a sign constructed generally similarly to the other figures, but having the movable members extended substantially the length of the sign as distinguished from the members adapted to be moved toward and from the center. Fig. 8 is a partly-broken rear view of the sign of Figs. 1 to 6, showing means for moving the different members of the sign for producing the varied effects thereof. Fig. 9 is a vertical section thereof, substantially on the line 9 9 in Fig. 8; and Fig. 10 is a section substantially on the line 10 10 in Fig. 2.

Similar numerals of reference indicate corresponding parts in the several views.

The numeral 1 in the drawings indicates generally the main frame, which may be of the character of an ordinary picture-frame having a back and open front, and in the illustrations shown the frame has a back 1^a and strips 1^b along its edges.

At 2 are indicated strips of fabric, paper, metal, or the like stretched across the front of frame 1, so that their edges overlap and being free between their edges, so that strips of the movable members of the sign may slide between the strips 2. As shown more clearly in Figs. 4, 5, 6, and 9, the strips 2 are passed over the outer edges of the rails 1^b and secured behind the same, and thus a space is formed between said strips and the back 1^a of the main frame in which the supporting portions of the movable members of the sign are adapted to slide. In Figs. 1, 2, 3, 4, 5, 8, and 9 the members of the sign are represented as located, respectively, on opposite sides of the central portion and adapted to move toward and from the center. To provide for this arrangement, the central strip 2^a is represented as wider than the strips 2, and the adjacent strips 2 at the right and left of the central strip 2^a lap over the edges of the latter, as in Fig. 3, while the strips 2 at the right overlap each other at their left-hand edges and the strips 2 at the left overlap each other at their right-hand edges. In Fig. 7 no central strip 1^a is used; but the right-hand edge of one strip 2 overlaps the left-hand edge of the next strip; but in this figure the lapping of the strips could be reversed, if preferred.

Within the space between the back 1^a and the strips 2 movable members 3 4 are provided, which respectively carry strips 5 6, adapted to slide between the strips 2 to expose and conceal the latter, the arrangement also being such that the strips 6 may in addition expose and conceal the strips 5 at the time that the strips 5 overlap the strips 2. The member 3 is shown composed of a back board or plate having ribs 3^a along its top and bottom edges providing a space within which the member 4 may slide, the latter being shown composed of a board or plate. The strips 5 extend across the space between the ribs 3^a and are secured at their corners to said ribs,

(see Fig. 5,) as by glue, tacks, or the like, the opposite edges of the strips 5 being free and unobstructed, the member 4 being adapted to slide behind the strips 5. The strips 6 are secured by glue, tacks, or the like along their rear edges to the member 4, so that their opposite edges are free to slide between the strips 2 and along the strips 5. The strips 5 and 6 are shown arranged in pairs, so that two of such strips 5 6 are adapted to slide over each corresponding strip 2 and behind the adjacent strip 2, and the strip 6 of each pair is adapted to slide over and expose and conceal the corresponding strip 5. The corresponding edges of the strips 5 6 overlie the adjacent strip 2. The arrangement is such that the members 3, with the strips 5, and the associate members 4, with the strips 6, are adapted to slide independently or in unison, so that when both the members 3 and 4, as in Fig. 1, are pushed toward the center of the sign the strips 5 6 will conceal the strips 2 and the strips 6 will conceal the strips 5.

It will be understood that a sign, picture, or other designation of the character desired will be produced upon the strips 6 of one or both members 4 for one or more representations, that a sign or designation will be produced upon the strips 5 of the members 3, and that a sign or designation will be produced upon the strips 2. Thus when the movable members are moved to the center a sign or representation will be exposed on the strips 6, and then if one or both of the members 4 are moved outwardly the corresponding strips 6 will uncover the corresponding strips 5 to display the sign or designation thereon, the strips 6 sliding behind the strips 2. If one or both of the members 3 are then moved outwardly, the strips 5 will slide behind the strips 2 and 6 into the positions shown in Fig. 2, thus exposing the representation upon the strips 2. By arranging the parts so that after the members 3 4 have been pushed toward the center both members 4 may be moved outwardly together and then both members 3, or one member 4 moved outwardly and thereafter the other member 4, and then a member 3 and next the other member 3, a dissolving-sign effect is produced. Fig. 2 indicates that the members 3 4 on both sides of the center have been moved outwardly to display a sign upon the full extent of the strips 2. If desired, the members 3 could be pushed back to the center first from the position shown in Fig. 2 and then the members 4 be caused to follow. I preferably provide means for causing the corresponding members 3 4 to slide toward the center at the same time. For this purpose I have shown in Fig. 10 the member 4 as provided with an extension 4^a, adapted to fit behind the edge of member 3, so that when member 4 is drawn forwardly member 3 will be caused to follow, whereby the strips 5 6

of a pair of members are simultaneously moved to conceal the strips 2.

In Fig. 7 the sign is represented as arranged so that the members 3 and 4 continue throughout substantially the length of the sign rather than be divided on opposite sides of the center in two portions, in which case the strips 2 all overlap in the same order and the strips 5 6 lie upon each other and slide between the strips 2 in manner before explained, but all in one order. As shown in Figs. 1, 6, 8, and 9, antifriction-balls 7 may be interposed between the parts 1^b and 3^a, and antifriction-balls 8 are correspondingly interposed between the parts 3^a and 4 for the purpose of reducing the friction of the members 3 4. At 9 is indicated a border, mat, or the like placed around the front of the sign and overlapping the adjacent portions of the strips to conceal the ends of the latter and give a finished appearance to the sign.

Any suitable means may be provided for causing the members 3 4 to be adjusted back and forth for changing the sign effects. In Figs. 8 and 9 I have illustrated devices for this purpose arranged as follows: At 10 is an arm in the nature of a button, pivotally supported centrally, as upon a pivot 11, journaled in a bracket 12 on the back of the frame 1, which pivot has a depending arm 11^a, the button 10 being located between the meeting edges of the members 4, so that when said button is turned on its pivot it will tend to spread said members apart. At 13 is indicated a similar button pivotally supported, as upon a pivot 14, carried by a bracket 14^b, secured upon the back of frame 1, said pivot having an independent arm 14^a, which button is located between the meeting edges of the members 3 and adapted to spread them apart. The arms 11^a 14^a in Fig. 9 are shown as depending in separate planes, and the arm 11^a is adapted to engage a block 15, shown carried by a sliding bar 16, to be reciprocated, as by a crank 17 and pitman 18, operated by a motor, clock-train, or in any other suitable manner, (not shown,) and at 19 is a similar block that is shorter than the block 15 and adapted to ride under the arm 14^a and which may be part of or secured to block 15. The members 4 are preferably connected by a spring 20, shown connected with pins 21, projecting from the members 4, through suitable slots in the members 3 and the back of the frame 1, tending to draw the members 4 together, and thereby by means of the ribs 4^a simultaneously pulling the members 3 together, in which case the arms 11^a 14^a will hang vertically independently of the blocks 15 and 19, and the crank 17 will extend horizontally in either direction. Assuming the crank 17 to extend horizontally to the left in Fig. 8, the blocks 15 and 19 will be at the left of arms 11^a 14^a. Crank 17 is next rotated in the

direction of the arrow in Fig. 8, whereupon block 15 will engage arm 11^a and swing the same into the position shown in Fig. 8, while said arm remains resting upon said block, thereby by the turning of button 10 separating the members 4 and causing the withdrawal of their strips 6 from in front of the strips 5, thus exposing the latter strips to view. At the appropriate time the block 19 engages arm 14^a, and correspondingly the button 13 spreads the members 3 apart, thereby withdrawing the strips 5 from in front of the strips 2 and exposing the latter to view. The continued motion of crank 17 permits arm 14^a to drop off block 19; but arm 11^a will still remain upon block 15, and spring 20 will not yet draw the members of the sign together; but as soon as block 15 passes to the right from under arm 11^a the latter will be free and spring 20 will pull members 4 together, and they in turn by the ribs 4^a will pull members 3 together, and the sign will be changed, exposing the strips 6. When the crank 17 makes the next half-rotation, a similar action will take place with respect to the buttons and members 3 4, the arms 11^a 14^a swinging in a reverse direction, the members 3 4 being spread apart, as before explained, until released from block 15, whereupon the spring will again draw said members together. Thus it will be understood that in the particular mechanism shown the members 3 4 are spread apart separately of each other, the two members 4 first separating, then the members 3, producing three changes in the sign, and then the members return to the center conjointly or together, making a quick change from the exposure of the representation upon strips 2 to the exposure upon strips 6.

While I have shown in Fig. 7 a sign composed of a single member 3, provided with strips 5, and a single member 4, provided with strips 6, and in the other figures a plurality of members 3 4, with their corresponding strips in a single arrangement, it will be understood that I do not limit my invention to the number of such members with their corresponding strips that I have shown, for any desired additional number of such members and strips can be placed one upon the other, arranged in the manner shown, with any suitable means for shifting such members back and forth successively or conjointly, as desired. Furthermore, several of the signs constructed as described may be associated together side by side and supported in suitable manner end to end, or upon each other vertically, or in any suitable relative arrangement, whereby a variety of changeable sign effects may be produced. My invention also is not limited to the particular details of construction shown and described, as they may be varied without departing from the spirit thereof.

Having now described my invention, what I claim is—

1. A sign comprising a support provided with a plurality of strips, a plurality of members each provided with a plurality of strips arranged to overlap each other when in one position of adjustment and at the same time overlap the first-named strips, said members being arranged to be moved independently so that the strips of one member may expose the strips of the other member and the strips of the last-named member may expose the first-named strips, and means connected with one movable member to cause the movable members to move conjointly to cause their strips to simultaneously conceal the first-named strips, substantially as described.

2. A sign comprising a support provided with a plurality of strips, movable members located on opposite sides of the sign and each provided with a plurality of strips to expose and conceal the first-named strips, a movable piece adapted to spread said members apart, means to operate the same, and means to move said members toward each other, substantially as described.

3. A sign comprising a support provided with a plurality of strips, movable members located on opposite sides of the sign and each provided with a plurality of strips to expose and conceal the first-named strips, an oscillatory piece arranged to spread said members apart, an arm connected with said piece, a block adapted to operate said arm, and means for operating said block, substantially as described.

4. A sign comprising a support provided with a plurality of strips, a plurality of members located on opposite sides of said support and adapted to be moved independently in opposite directions and provided with strips adapted to expose and conceal the first-named strips, a plurality of independent oscillatory pieces to operate opposed members, means for independently operating said pieces, and means for moving said members toward each other, substantially as described.

5. A sign comprising a support provided with a plurality of strips, a plurality of members located on opposite sides of said support and adapted to be moved independently in opposite directions and provided with strips adapted to expose and conceal the first-named strips, a plurality of independent oscillatory pieces interposed between opposed members, said pieces being provided with independent arms, blocks to independently operate said arms, means for operating said blocks, and means for moving said members toward each other, substantially as described.

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