

No. 826,680.

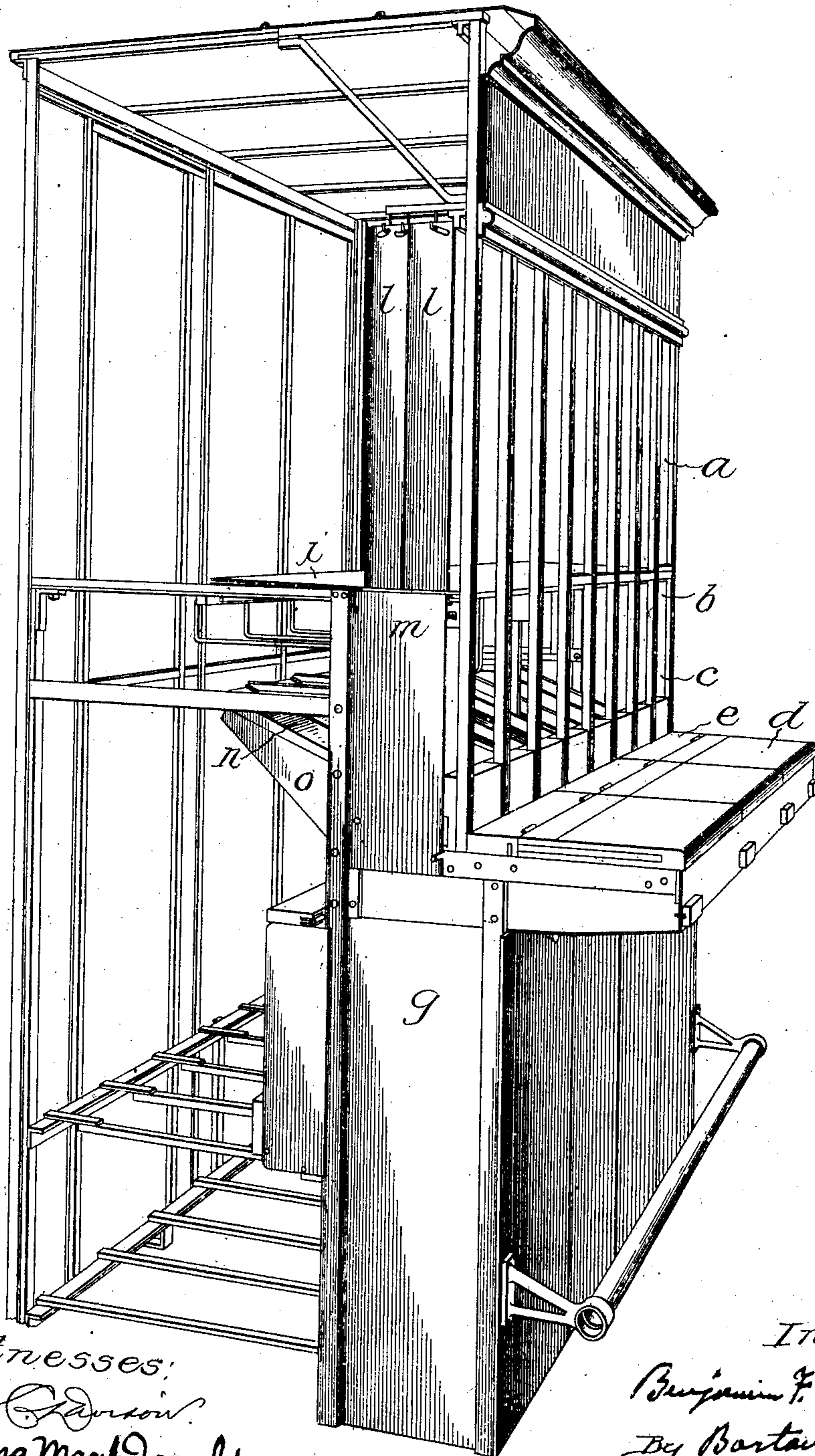
PATENTED JULY 24, 1906.

B. F. MERRITT.
MULTIPLE SWITCHBOARD CONSTRUCTION.

APPLICATION FILED AUG. 7, 1905.

4 SHEETS—SHEET 1.

Fig. 1.



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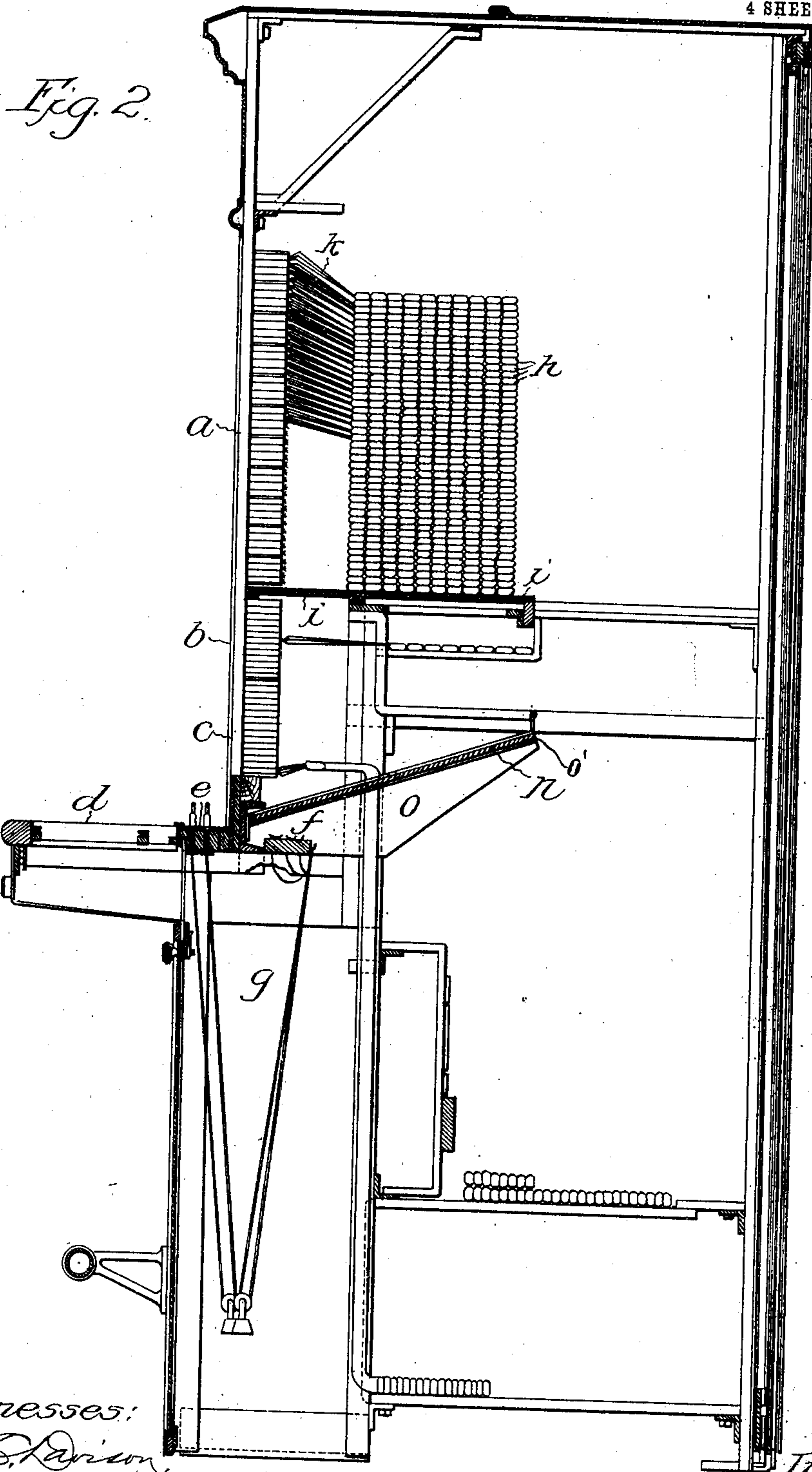
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4 SHEETS—SHEET 2.



Inventor:
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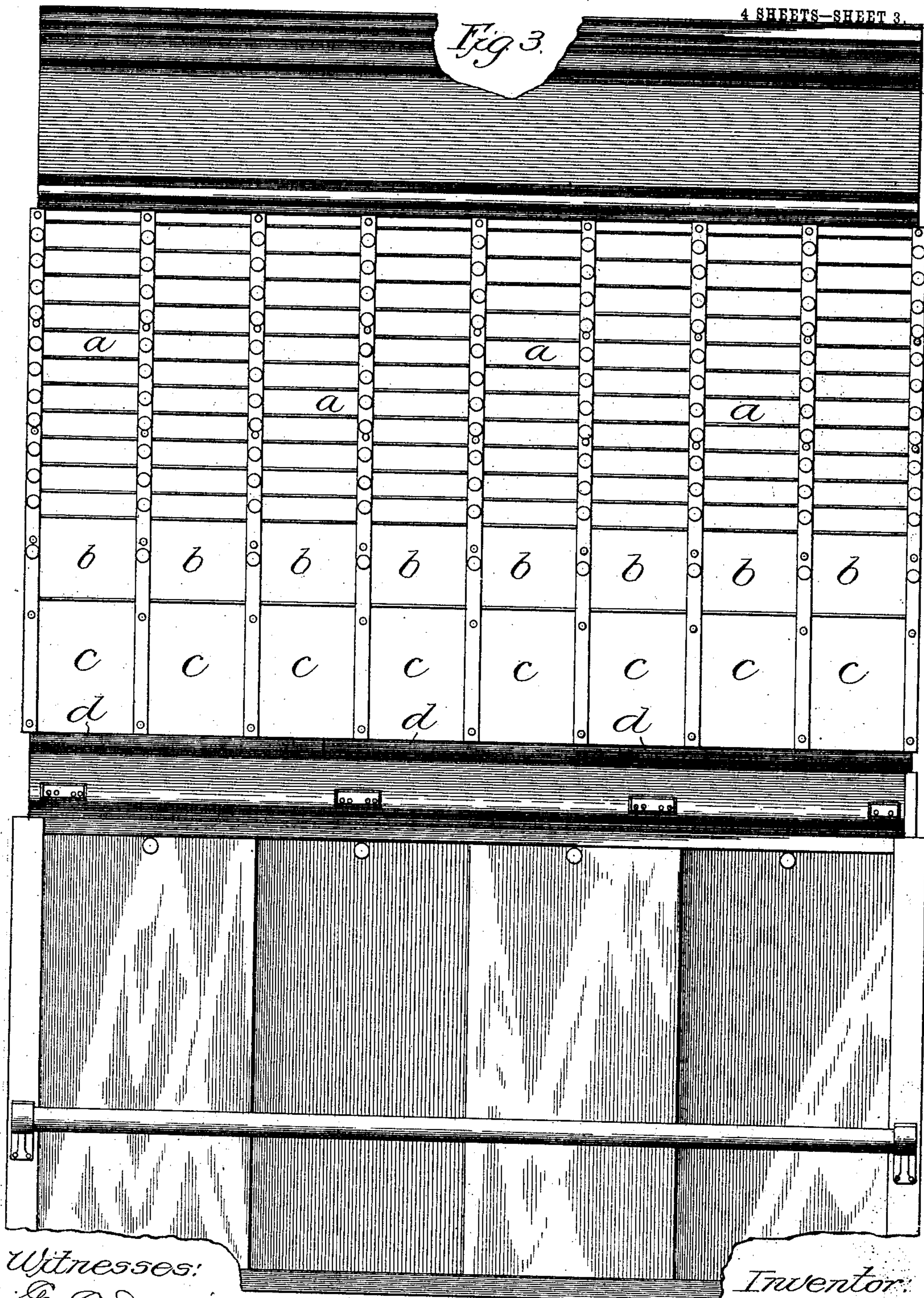
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4 SHEETS—SHEET 3.



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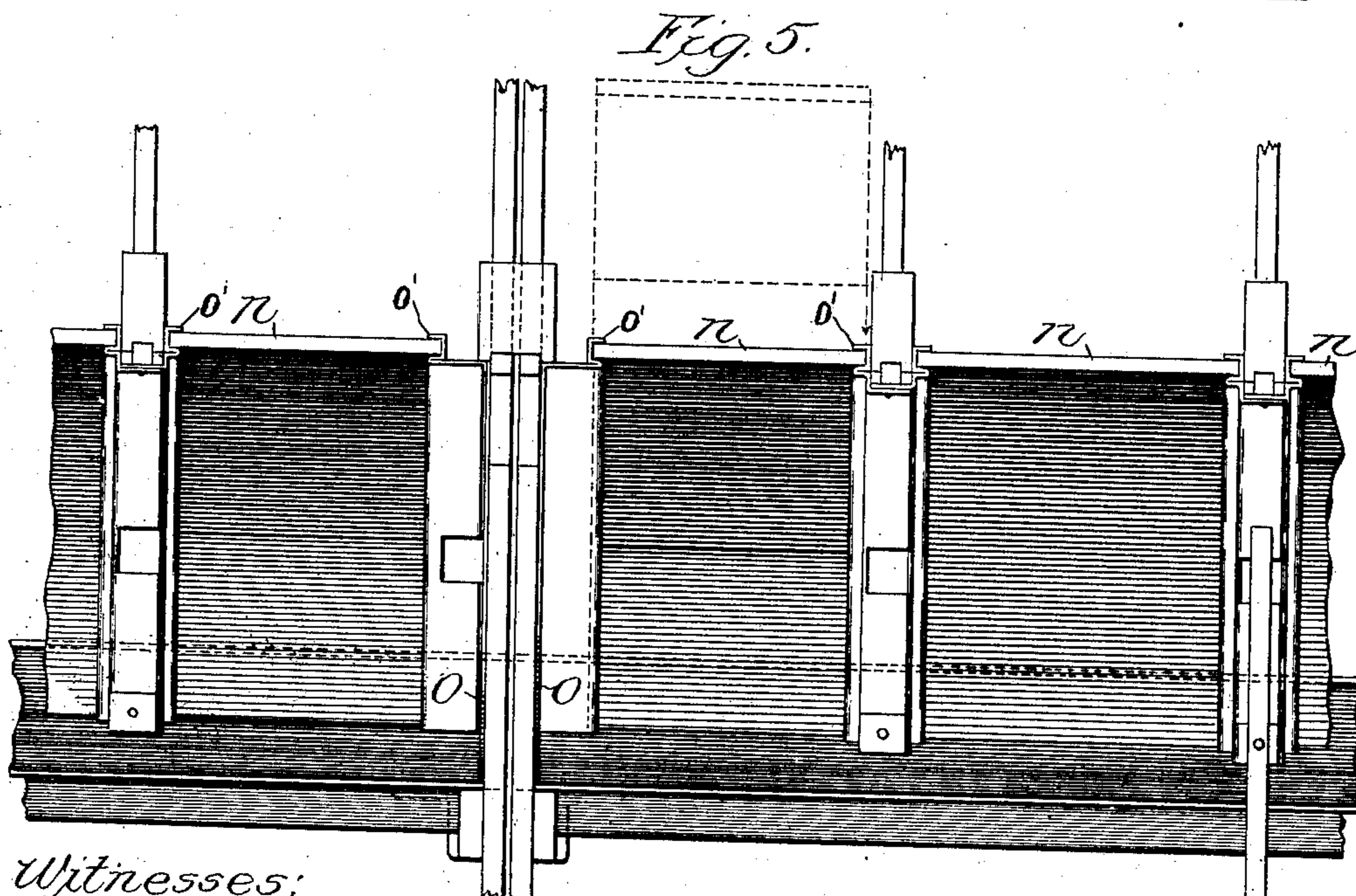
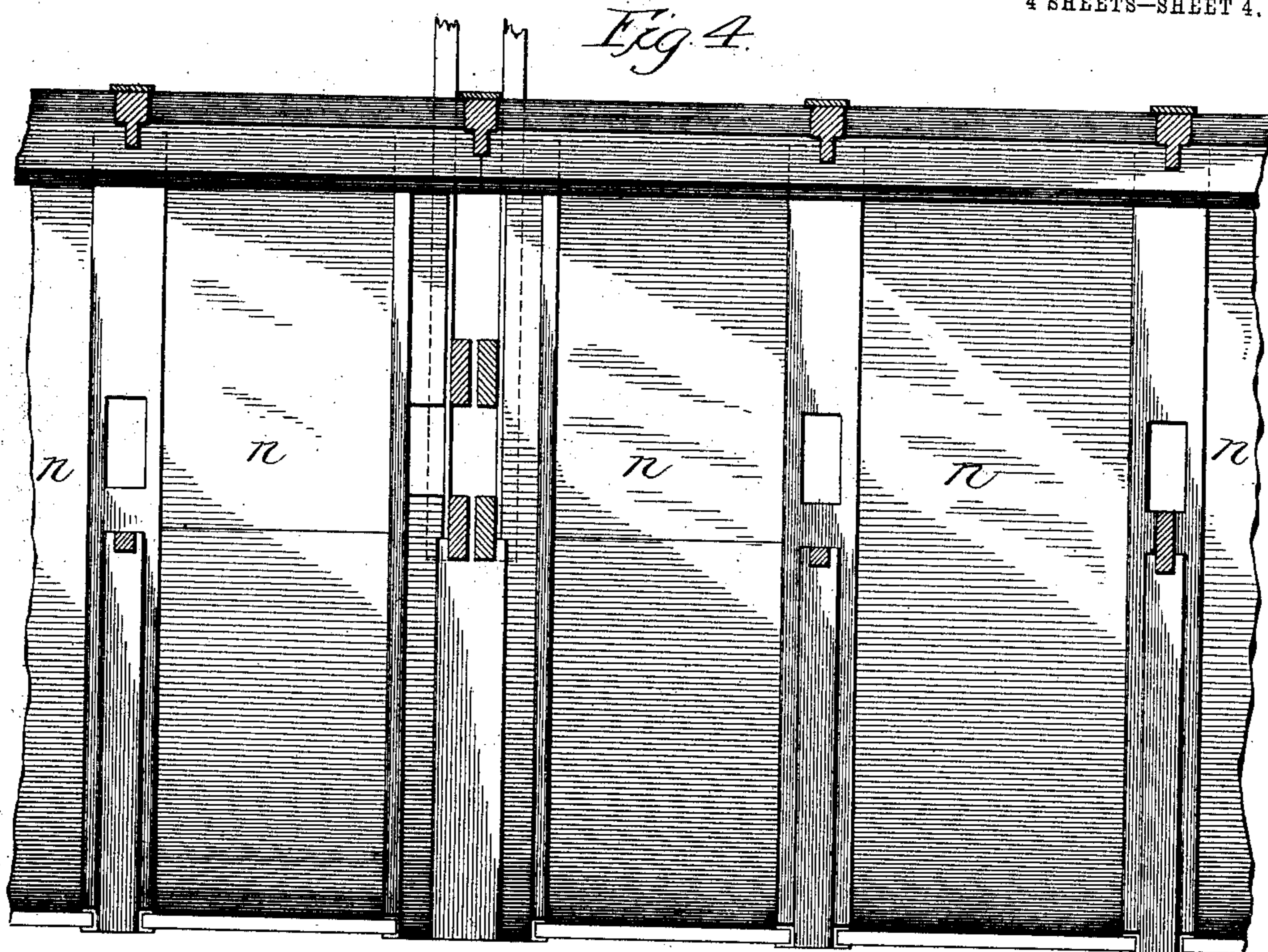
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MULTIPLE SWITCHBOARD CONSTRUCTION.

APPLICATION FILED AUG. 7, 1905.

4 SHEETS—SHEET 4.



Witnesses:
Ed. Starnum
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UNITED STATES PATENT OFFICE.

BENJAMIN F. MERRITT, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO
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MULTIPLE-SWITCHBOARD CONSTRUCTION.

No. 826,680.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed August 7, 1905. Serial No. 272,961.

To all whom it may concern:

Be it known that I, BENJAMIN F. MERRITT, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented a certain new and useful Improvement in Multiple-Switchboard Construction, of which the following is a full, clear, concise, and exact description.

10 The object of my invention is to more securely separate and individualize the different sections of the switchboard and guard against the spread of incipient fires which are always liable to be started at the cord-shelf connections, in the cabling, or in the branches or extensions which connect with the multiple jacks of the subscribers, or, in fact, in any part of the conductors or their connections. This I accomplish while at the same time securely supporting the several parts of the switchboard-frame.

25 In the construction of multiple switchboards the wires are carried in cables horizontally from one section to another. The answering-jack cables may be placed in a compartment or space near the floor, and immediately above may be placed the repeating-coil-cable equipment, a connecting-rack being placed near by, on which the repeating-coil cables terminate. The plates upon which the relays and resistance-coils are mounted may be arranged immediately above the connecting-rack and a space provided in front thereof and back of the rear side of the cord-space to accommodate the cables of the relays and connecting-rack, which cables are usually of silk and cotton covered wire. The cord-shelf is placed at the rear of the plug-shelf, which latter is directly behind the key-shelf. The subscribers' multiple-switchboard cables are placed immediately back of the multiple jacks, which are on the upper portion of the board. The outgoing trunk multiple cables and the outgoing trunk multiple jacks are located in spaces provided above the cord-shelf and below the subscribers' multiple cables. The subscribers' multiple cables are connected with the multiple jacks by extensions of the cable-wires, called in the shop "skinners."

My invention relates to the manner of arranging these cables and cords and separat-

ing the same by bulkheads or partitions and at the same time providing for ready access to the different groups of cables and cords and their several connections. Bulkheads or partitions are arranged so as to divide the group of skinners belonging to a given section of switchboard from adjoining groups. I provide also a partition or roof above the cord-shelf of each section and divide the space below the cord-shelf of each section of switchboard from that of adjoining sections. These several partitions or bulkheads are made of non-inflammable material of the requisite strength.

My invention will be more readily understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the framework of a section of a multiple switchboard, showing the fireproof bulkheads of my invention. Fig. 2 is a vertical sectional view thereof, showing the positions of the cables and the cords. Fig. 3 is a front elevation thereof. Fig. 4 is a fragmentary sectional plan view showing the sliding sections or plates of the roof; and Fig. 5 is a rear elevation of the same, showing by dotted lines one of the divided plates of the roof withdrawn.

Like parts are indicated by similar letters of reference throughout the different figures.

It will be understood that each section of switchboard consists of several panels. In this instance eight panels are illustrated.

The multiple jacks are placed upon the upper portion *a* of the face of the board. The outgoing trunk multiple jacks are placed immediately below, as indicated at *b*, and below these at *c* are mounted the answering-jacks and individual annunciators. The key-shelf *d*, the plug-shelf *e*, and the cord-shelf *f* are arranged as shown. The space accommodating the slack of the cords is immediately below the cord-shelf and is divided off from the space of adjoining sections by metal partitions *g*. The subscribers' multiple cables *h* are mounted above on a fireproof support or floor *i* immediately at the rear of the subscribers' multiple jacks. The space between the cables and the rear of the jacks affords room for running and connecting the skinners *k* with the spring-jacks. These skinners being insulated with inflammable mate-

rial require special protection against fires which may originate among them or in other parts of the switchboard.

As shown most clearly in Fig. 1, I have provided the steel partition *l* for preventing fire that might originate at one section from spreading to skinners of adjoining sections. The steel partition *m* below divides longitudinally the space back of the outgoing trunk-jacks and answering-jacks.

An important feature of this invention is the provision of a roof or partition *n* immediately above the cord-shelf. As shown, this roof is made up of separate sections, which are supported in transverse steel brackets or end plates *o o*, which extend transversely across the space above the cord-shelf. Inclined channel-irons *o' o'* are provided on these end plates, forming guideways in which the partition-sections *n n* may slide in and out. When in place as shown, the partition-sections form an inclined roof extending rearwardly and upwardly above the cord-shelf, so that flame and heat from fires originating below the partition will be directed to the rear of the cables and skinners to prevent its spread. The end plates *o o*, extending below the roof at the ends of the sections thereof, serve, further, to prevent the lateral spread of such fires. When desired to make repairs or changes in the electrical connections, easy access may be had to the cord-shelf and adjacent parts by merely pulling out the sliding partition-sections.

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

1. In a multiple switchboard, a horizontal fireproof partition extending from the rear of the switchboard between the multiple and answering jacks, cables carrying conductors supported upon said partition, skinners or extensions of the conductors connected to the jacks, and fireproof partitions separating the space occupied by said skinners into sections.

2. The combination with the multiple jacks upon the upper portion of the switchboard, and the cables therefor mounted on a fireproof floor *i* supporting said cables, said cables being connected with the jacks by skinners *k*, the cord-shelf *f* with the cord con-

nections thereon, the roof *n* having sliding sections, and the jacks and their connections located in the lower part of the board above said roof and below the fireproof floor *i*; whereby incipient fires are prevented from spreading, substantially as and for the purpose specified.

3. In a multiple switchboard, the fireproof roof or partition *n* provided with sliding sections, in combination with the cord-shelf placed immediately below the same, said roof at the ends of the section of switchboard to which it belongs being provided with brackets *o*, whereby protection is had against fires and access afforded to the connections below the said roof, substantially as and for the purpose specified.

4. In a multiple switchboard, the combination with a cord-shelf, of connecting-cords hanging from the shelf, spring-jacks in the face of the board above the shelf, cables at the rear of the switchboard, skinners extending forward from the cables to the spring-jacks, horizontal partitions *i, o*, separating the spaces occupied by the multiple jacks, the answering-jacks and the connecting-cords from each other and transverse vertical fire-resisting bulkheads or partitions *l m g* extending forward at intervals from the line of cables and dividing the spaces occupied by the skinners and connecting-cords into separate compartments.

5. The combination with a multiple switchboard having a cord-shelf at the rear and cables with their skinners in the rear portion of the board above the cord-shelf, of transverse plates *o o* extending rearwardly above the cord-shelf at intervals along the board, said plates being provided with guideways, and fire-resisting partition-sections *n n* arranged to slide in and out in said guideways, forming when in place a roof over the cord-shelf to prevent the upward spread of fires, the lateral spread of the fire being further checked by the said supporting-plates at the ends of the partition-sections.

In witness whereof I hereunto subscribe my name this 28th day of July, A. D. 1905.

BENJAMIN F. MERRITT.

Witnesses:

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WALTER V. TOWLE.