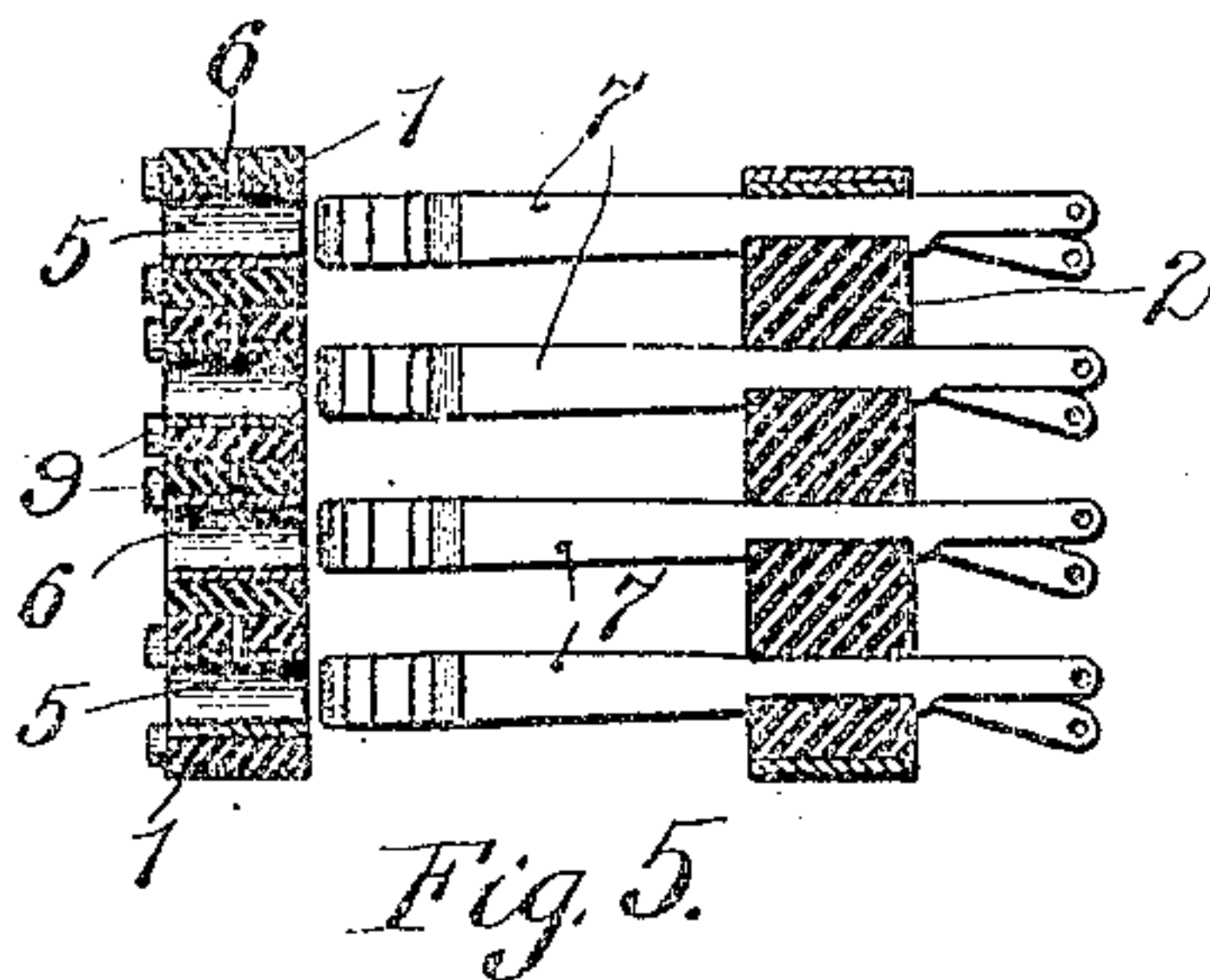
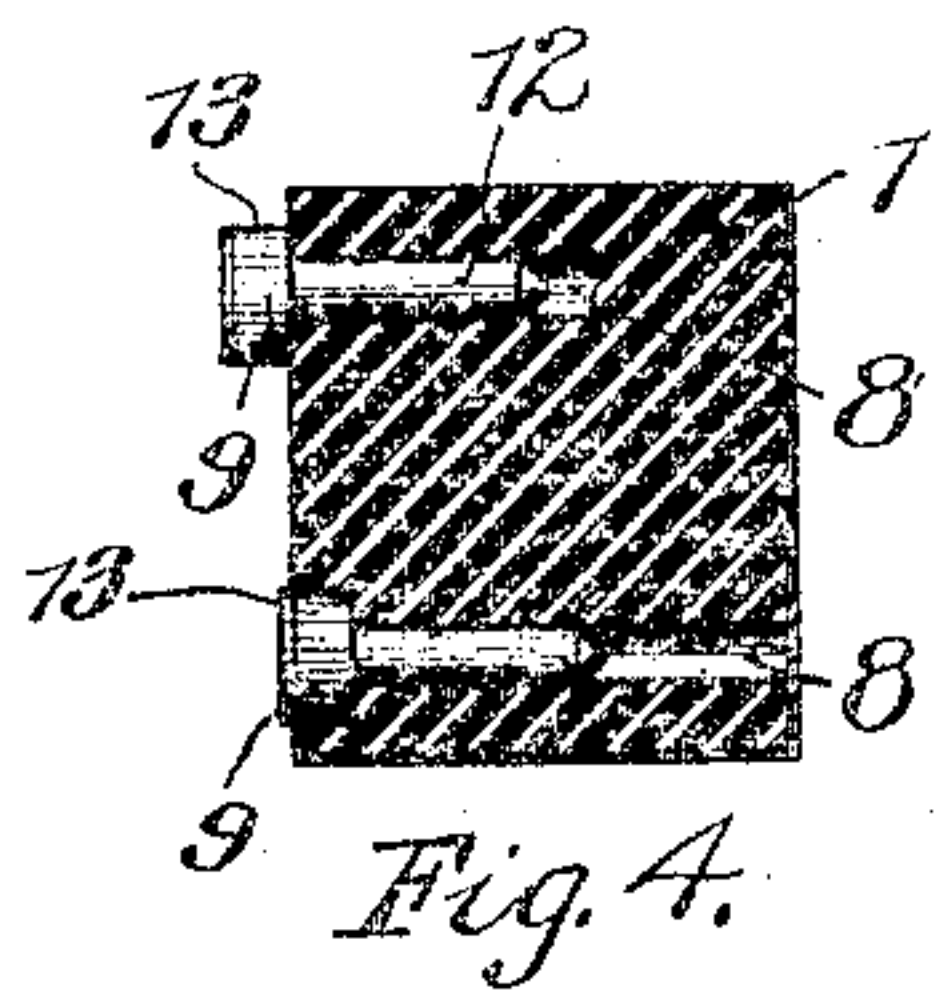
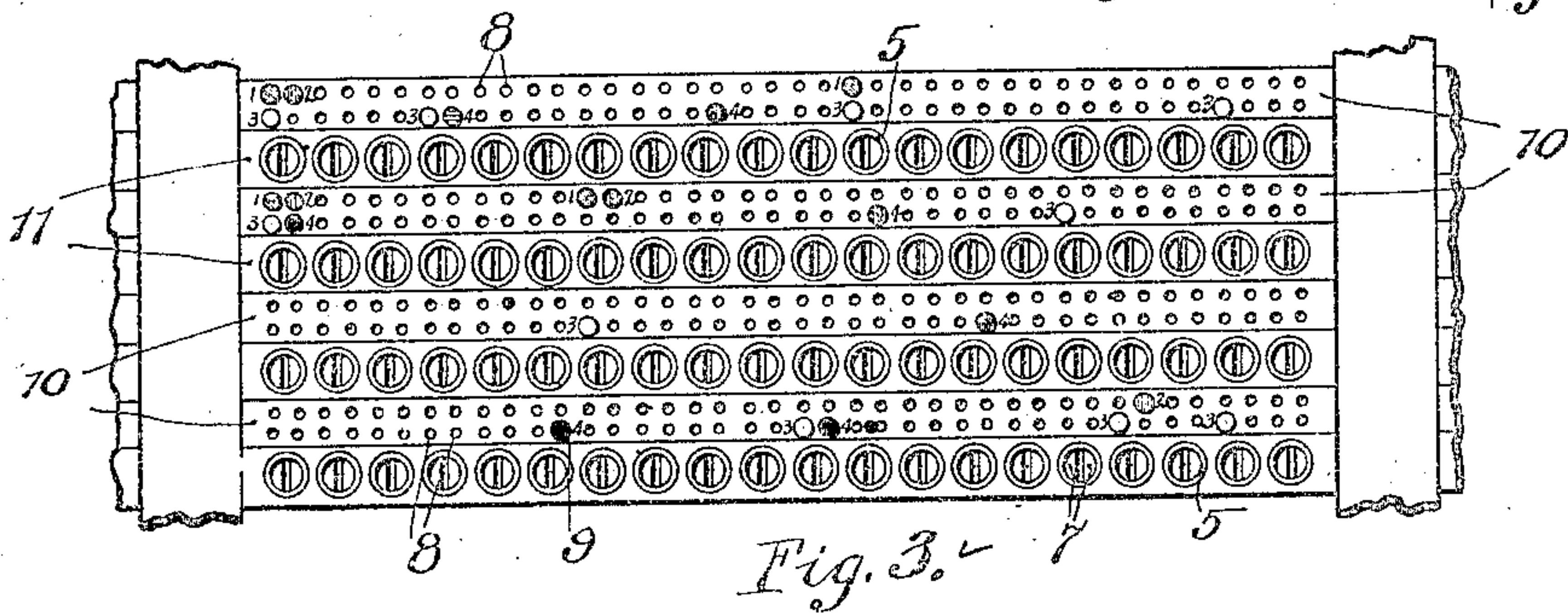
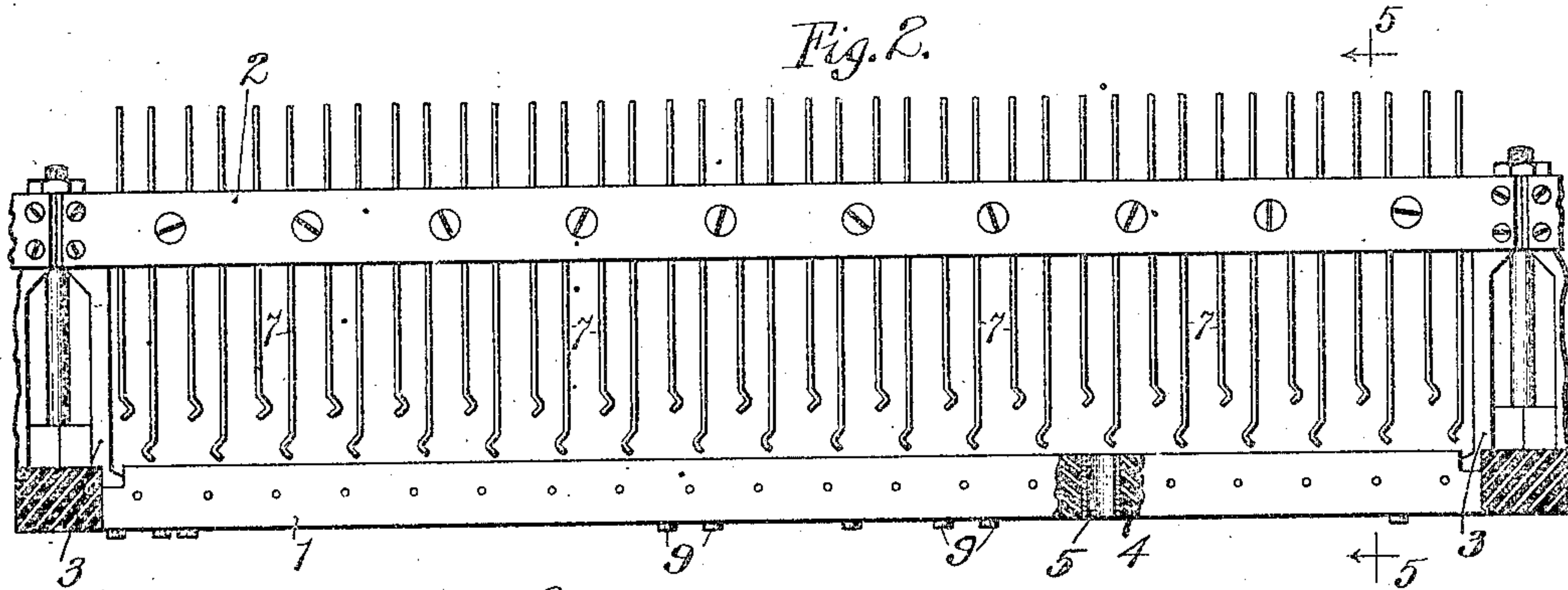
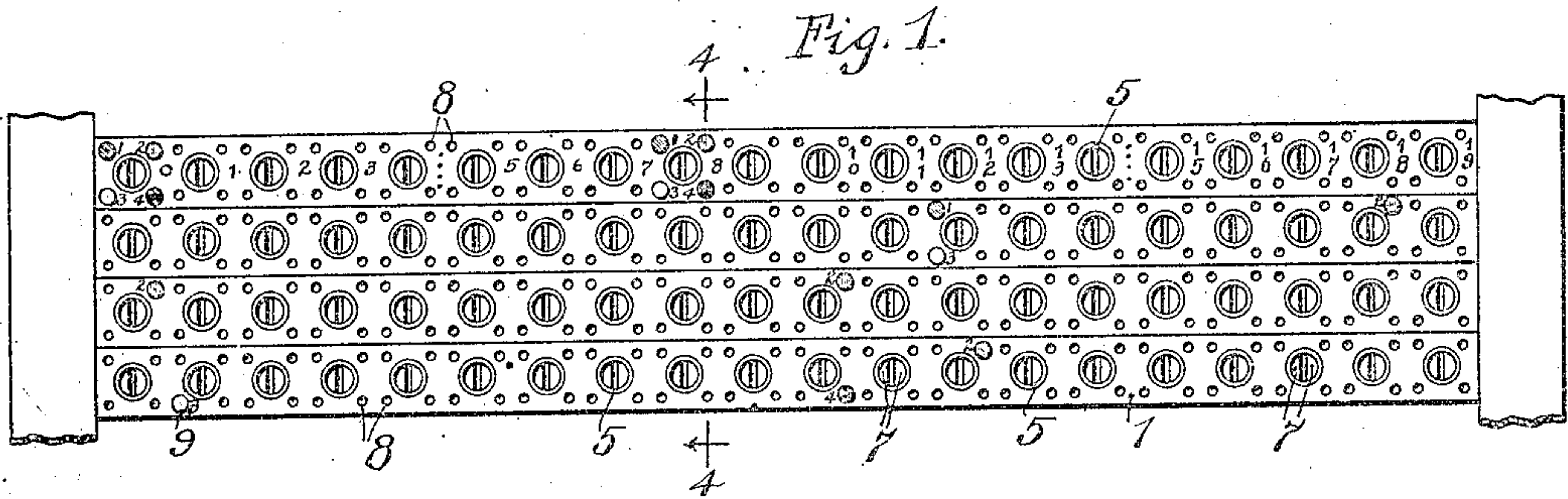


No. 828,848.

PATENTED AUG. 14, 1906.

A. M. HAUBRICH.
TELEPHONE SWITCHBOARD.
APPLICATION FILED APR. 1, 1904.



Witnesses:
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UNITED STATES PATENT OFFICE.

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TELEPHONE-SWITCHBOARD.

No. 323,343.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed April 1, 1904. Serial No. 201,030.

To all whom it may concern:

Be it known that I, ALEXANDER M. HAUBRICH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Telephone-Switchboards, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to telephone-switchboards; and its object is to provide means for at all times indicating to the central-exchange attendants the condition of the telephone-lines or the substations and instruments connected therewith.

In the prior art when a calling subscriber requested a connection with another subscriber in order to ascertain whether or not the called subscriber could be obtained it was necessary for the operator to insert a calling-plug into the called line, then to ring over the line, and then to watch for the supervisory signal to indicate whether or not the called subscriber had answered. If, unknown to the operator, the called line was out of service or the instrument at the substation was defective and unserviceable, or if for any other reason the desired subscriber could not be reached a great loss of time resulted both to the operator and the calling subscriber.

My invention enables me to obviate this loss of time, and it provides indicating means whereby the operator may at a glance ascertain whether or not the called subscriber is obtainable, and if the called subscriber cannot be reached she can at once notify the calling subscriber thereof. For this purpose I provide pins having different-colored heads adapted for insertion, preferably about or in close proximity to the line-jacks, each color corresponding to a certain operative condition of the line or substation or instrument connected with a line, this being very useful in connection with party-lines to indicate the condition of each substation or instrument connected with a party-line.

The accompanying drawings will more clearly illustrate my invention, in which—

Figure 1 shows a front view of jack-banks. Fig. 2 shows a top view of one of these banks. Fig. 3 shows a modified application of my invention to a multiple-jack switchboard. Fig.

4 is an enlarged sectional view through the front support of a jack-bank, taken on line 4 4 of Fig. 1; and Fig. 5 is a sectional view taken on line 5 5 of Fig. 2.

Like reference characters refer to like parts in the various figures.

The jack-banks may be of any construction, and I have shown the banks to consist of a front support 1 and a rear support 2, united by end plates 3 3. The front support is provided with jack-openings 4 4, lined with jack-thimbles 5 5, which may be held in place by pins 6 6, while the rear support carries the jack-springs 7 7.

I provide a series of apertures or drill-holes 8 8, adapted for the reception of pins 9 9. These holes may be of any number and may be disposed about the jack-openings in any arrangement, and may extend entirely through the support 1 to provide an easy means for removing the pins therefrom. The heads of the pins may also be countersunk to bring their front faces flush with the face of the bank.

In Fig. 1 I have shown four holes disposed diagonally opposite about each jack-opening, and this arrangement may be used where there is sufficient space about the opening to permit of the insertion of the pins. Where the jack-openings are crowded closer together—as, for instance, on a multiple-jack board—I prefer to provide separate strips 10 10, adapted to be sandwiched between the jack-strips 11 11, each of the strips 10 being drilled with series of holes corresponding to the jack-opening either directly above or below it. The pins 9 preferably consist of a shank portion 12 for entering the openings 8 and of a head 13. Different heads may be provided with different colors, which may be painted or enameled thereon, or colored paper or other material may be secured to the heads.

In Fig. 1 at jack No. 8 I have shown a different-colored pin inserted in each of the four openings disposed about said jack-opening. This jack may be the termination of a party-line having four substations and instruments connected therewith. The opening corresponding to substation or instrument No. 1 on the party-line is shown as provided with a green-colored pin, while the openings corresponding to substations 2, 3, and 4 are shown as provided, respectively, with a red,

black, and a white pin. The white pin may indicate to the operator that the instrument at substation 3 is serviceable. The green pin may indicate to her that the instrument
5 at substation 1 has been removed for repairs. The red pin may indicate to her that the instrument at substation 2 is defective and not serviceable, and the black pin may indicate to her that the subscriber at substation 4 will
10 not be obtainable for a length of time. Also where a single subscriber-line is connected with a jack a certain-colored pin might mean that the line is out of order or undergoing repairs, and so on any color may indicate to the
15 operator a certain operative condition of the line, substation, or instrument, and the station attendants are at all times enabled to give direct information to a calling subscriber without loss of time, and as the conditions
20 change pins of different colors may be inserted.

I do not wish to limit the adaptation of my invention to the telephone art as shown, as it will be equally useful in telegraphy or in
25 any other art where it is desired to have indication at all times of the operative condition

of substations and the apparatus thereat. Change may also be readily made in the construction and application of the invention without departing from the spirit thereof. 30

I claim as new and desire to secure by Letters Patent—

In a telephone-exchange system the combination with a switchboard provided with a plurality of jack-banks, of strips interposed 35 between the jack-banks, jack-openings in the jack-banks, a set of four apertures 8 above each jack-opening in the strip, each aperture corresponding to one of the substations connected with the line leading to 40 the jack-springs to the rear of the corresponding jack-opening, and pins 9 adapted for interchangeable insertion in said apertures, said pins having different-colored heads, each color representing one of the substations con- 45 nected with the line.

In witness whereof I hereunto subscribe my name this 29th day of March, A. D. 1904.

ALEXANDER M. HAUBRICH.

Witnesses:

CHARLES J. SCHMIDT,

HARVEY L. HANSON.