

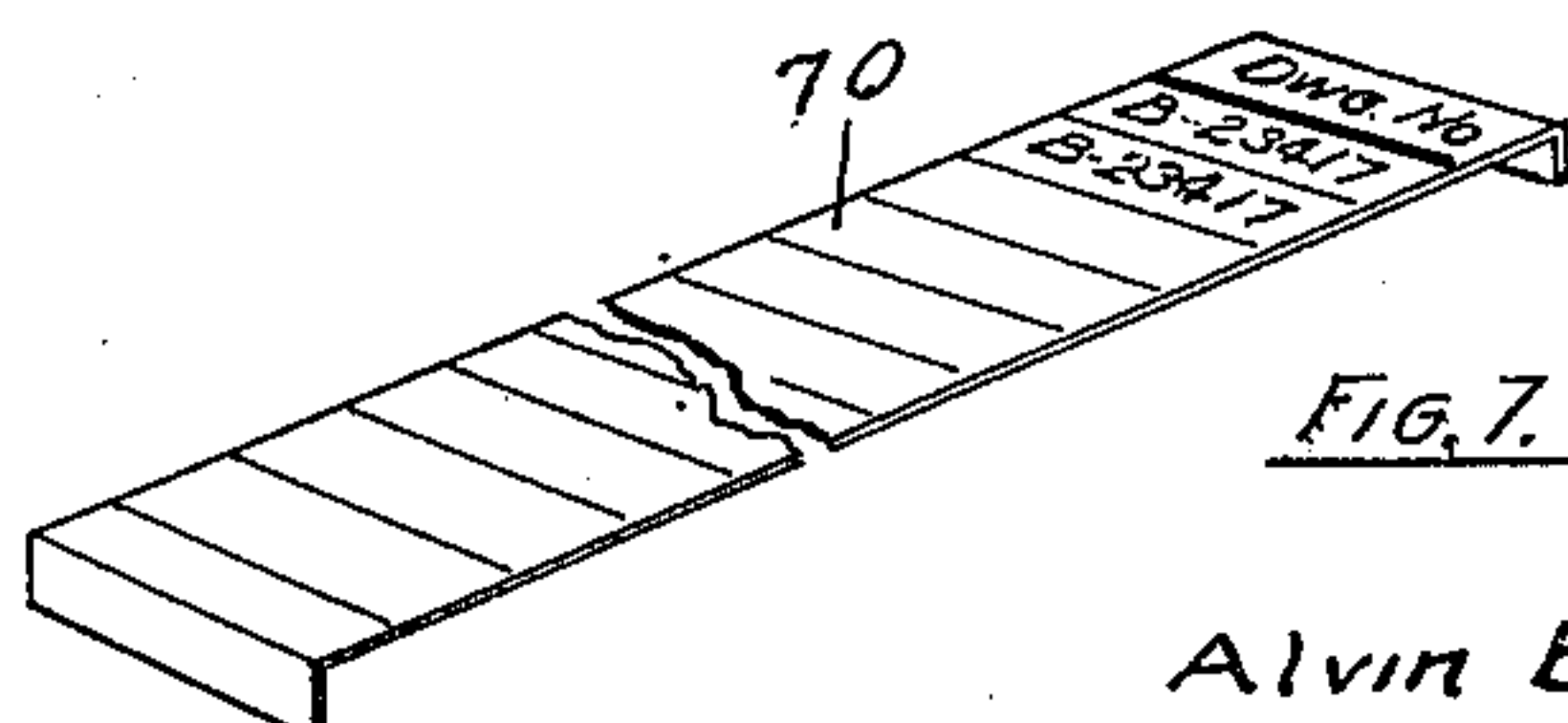
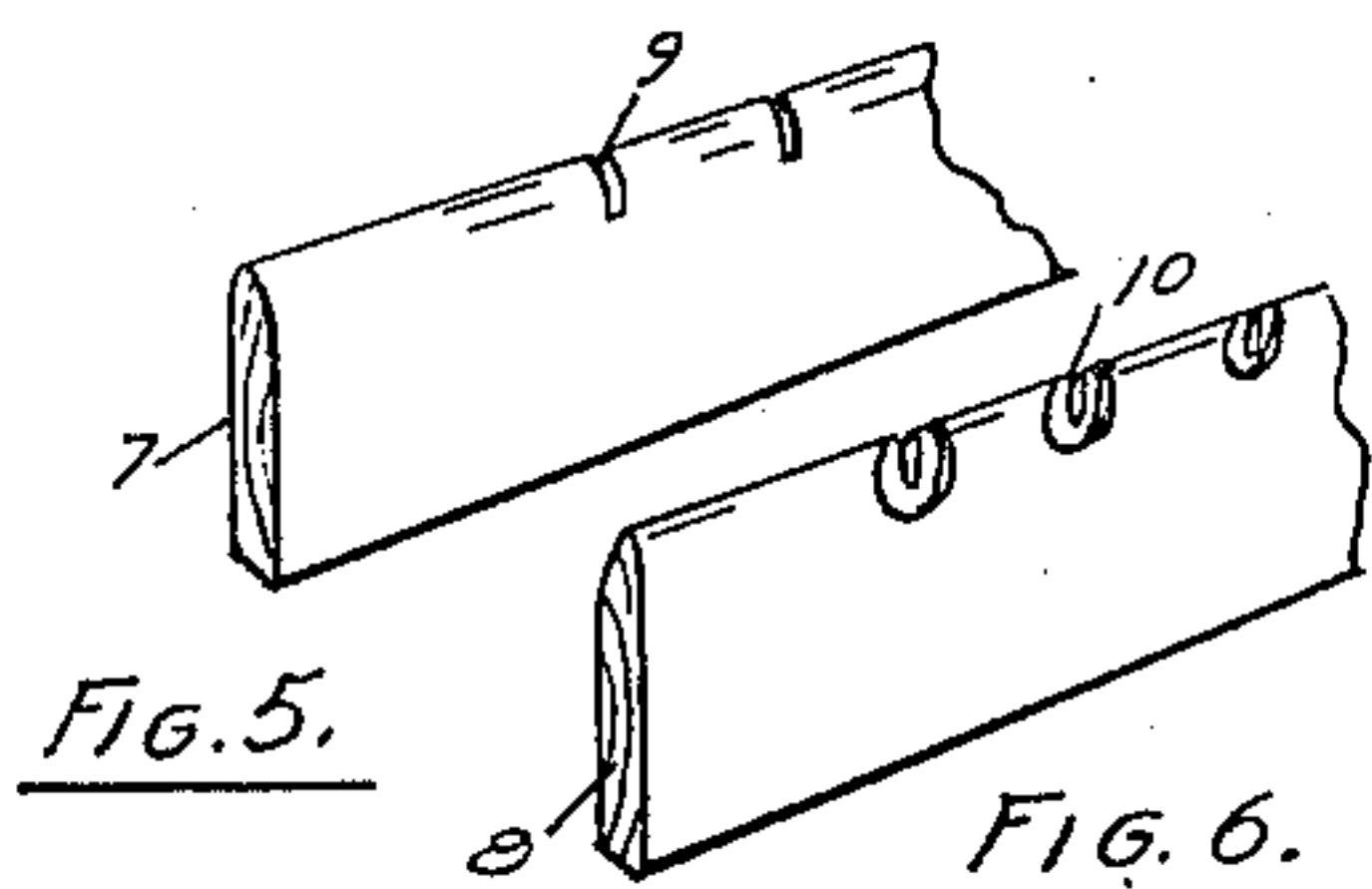
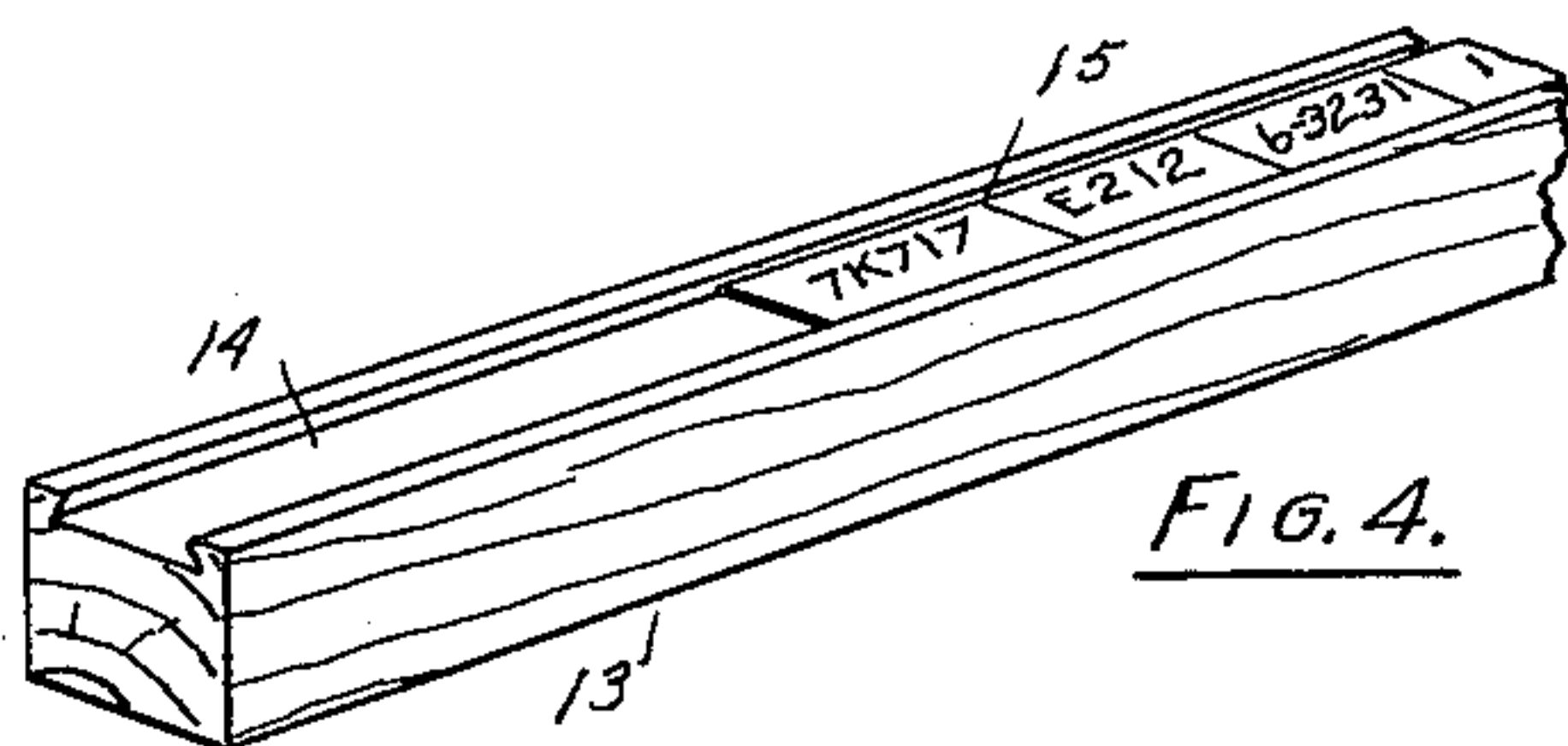
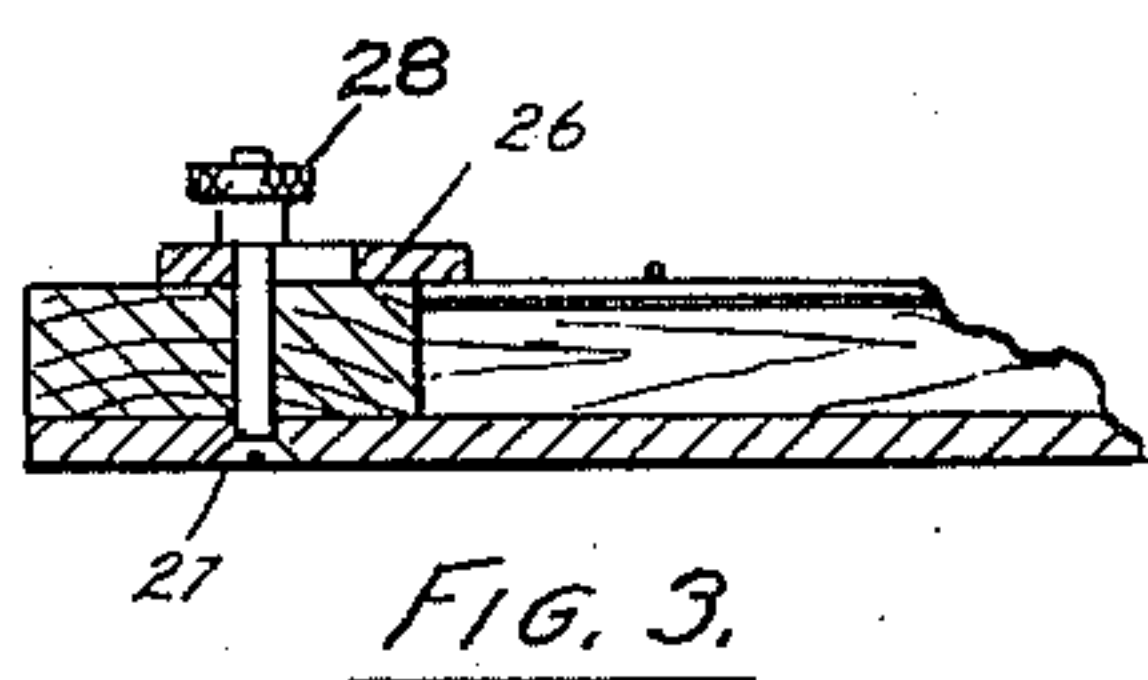
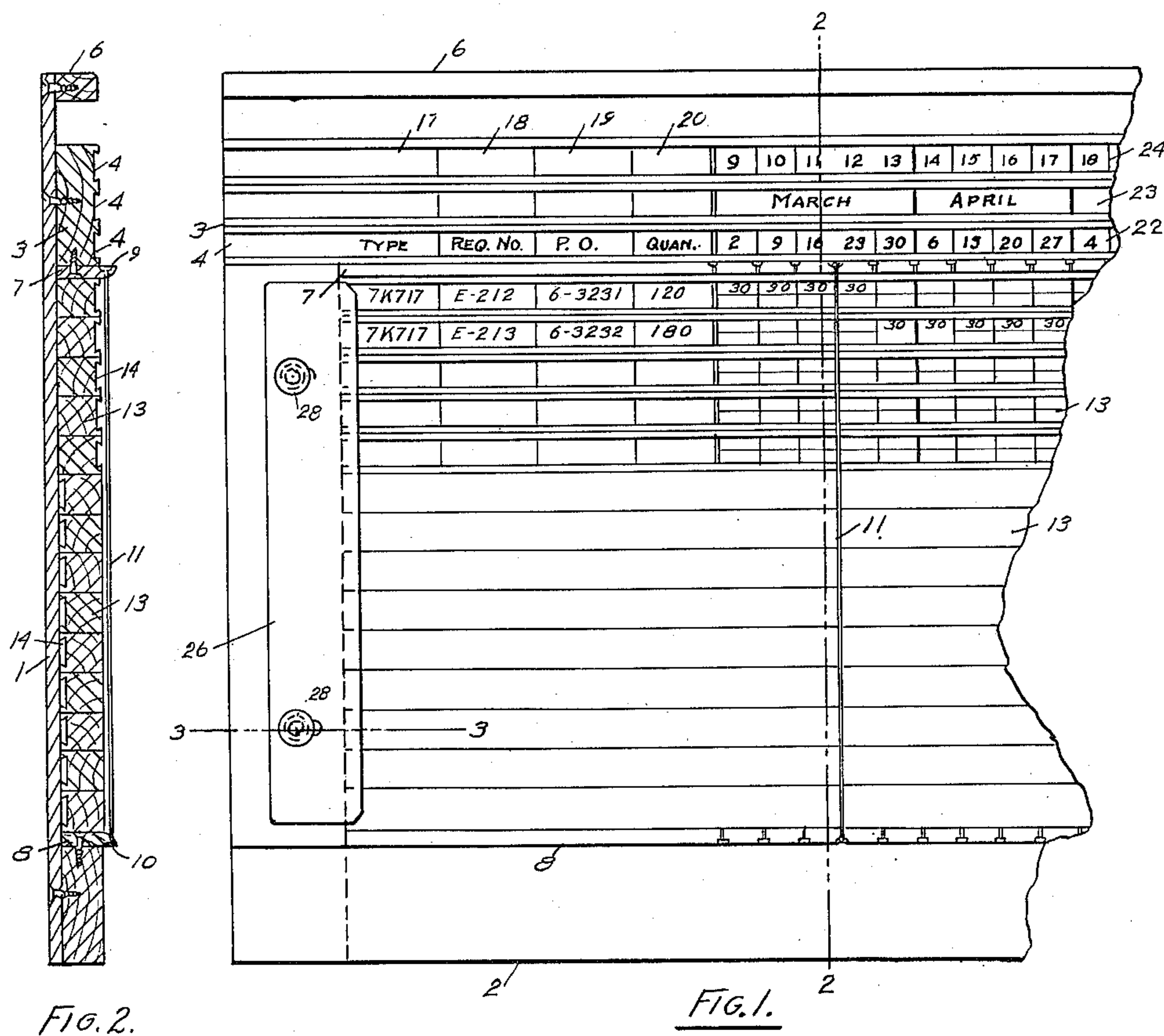
March 6, 1951

A. B. CORZILIUS
PRODUCTION CONTROL BOARD

2,544,445

Filed July 24, 1946

2 Sheets-Sheet 1



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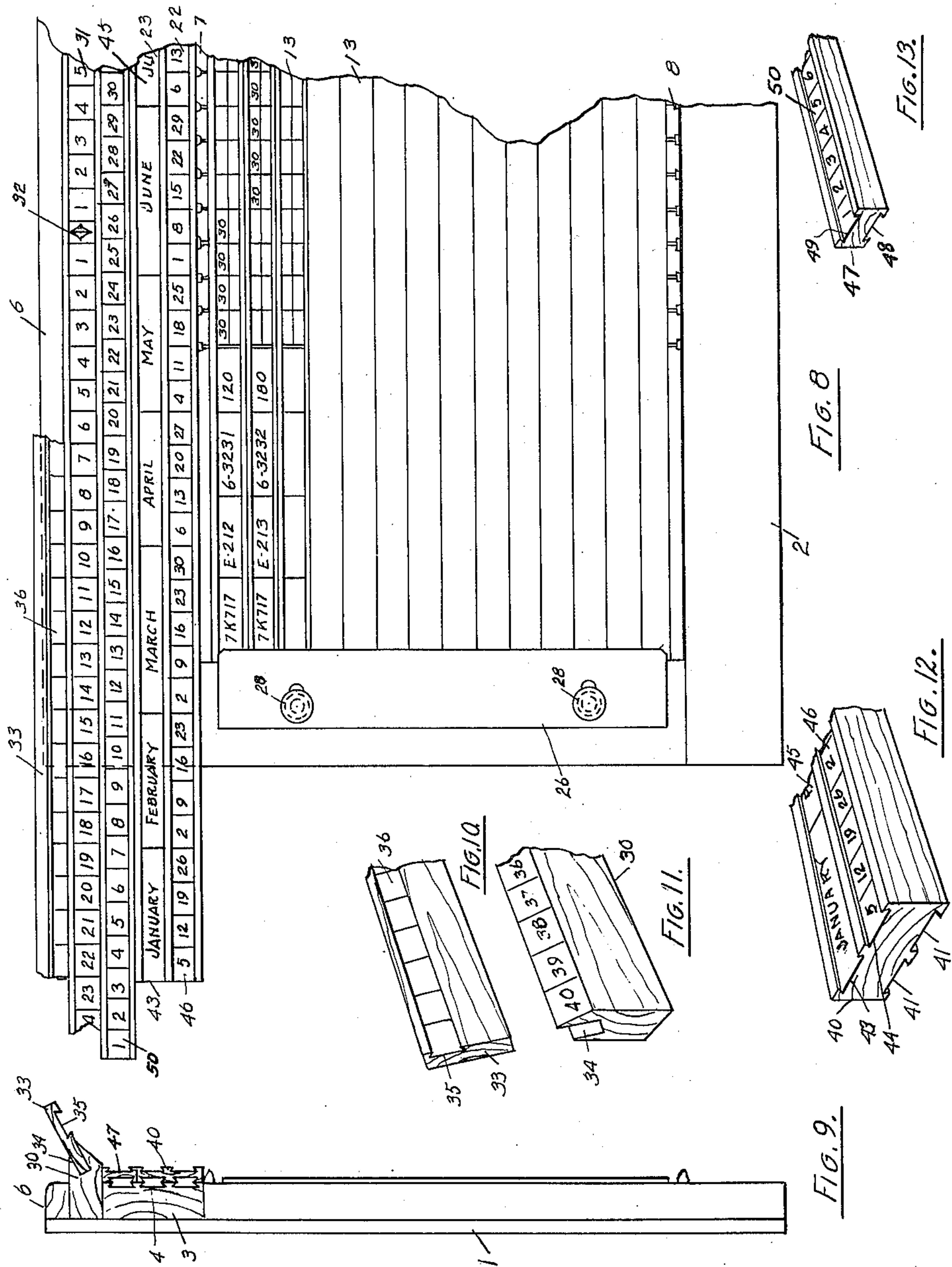
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UNITED STATES PATENT OFFICE

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PRODUCTION CONTROL BOARD

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Application July 24, 1946, Serial No. 685,830

6 Claims. (Cl. 35—24)

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This invention relates generally to production control boards and more particularly to readily changeable and adjustable production control boards.

Conventional control boards now in use require that individuals take the production schedule from the control board and place it on production control sheets by manual notations. In order to change a production schedule it is now necessary to make up an entirely new production control sheet. It is now necessary to make up a new sheet when the schedule has been changed in more than one order. Where there are frequent changes in production schedules, as is the case in most manufacturing operations, it is required that a number of persons continuously work on making up new production sheets. Material control is now done more or less haphazardly as it has not been part of the production control schedule and the material control for the order projected on the production control board. Under present systems of manual notations many mistakes are made due to the common human traits. It is now necessary to provide special production control sheets to control the production of the component parts for the major items.

It is, accordingly, an object of my invention to overcome the above and other defects in present production control systems and it is more particularly an object of my invention to provide a production control board which is simple in construction, easy to operate, efficient in operation, practically fool-proof, easy to construct, and economical in construction and operation.

Another object of my invention is to provide a production control board which may be operated by a relatively inexperienced person.

Another object of my invention is to provide a production control board which may be utilized for production control of materials and component parts along with the primary items.

Another object of my invention is to provide a production control board which has all the principal parts thereof changeable and removable.

Another object of my invention is to provide a production control board which indicates a complete production schedule and one which may be changed in a minimum of time.

Another object of my invention is to provide a production control board in which removable strips are provided to indicate particular orders.

Another object of my invention is to provide a production control board in which a production schedule may be changed by merely sliding members on a board relative to each other.

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Other objects of my invention will become evident from the following detailed description, taken in conjunction with the accompanying drawings, in which

Fig. 1 is a fragmentary side elevational view of my novel production control board.

Fig. 2 is a view taken on the line 2—2 of Fig. 1.

Fig. 3 is a fragmentary view taken on the line 3—3 of Fig. 1.

Fig. 4 is a fragmentary perspective view of a removable order schedule strip.

Figs. 5 and 6 are fragmentary perspective views of notched strips for holding a cord or the like.

Fig. 7 is a perspective view of an insertible overlying strip to provide for scheduling component parts in accordance with a master schedule.

Fig. 8 is a fragmentary side elevational view of my novel production control board with a plurality of relatively movable members having indicia thereon for rescheduling, material control, etc.

Fig. 9 is an end elevational view of the board shown in Fig. 8.

Figs. 10 and 11 are fragmentary perspective views of a removable material control member on the upper side of the board.

Fig. 12 is a fragmentary perspective view of a dated movable member for disposal on the upper side of my novel control board.

Fig. 13 is a fragmentary perspective view of a movable member with chronological weekly divisions.

Referring now to the drawings, Figs. 1 to 12, inclusive, show a backboard 1, a bottom cross member 2, a top cross member 3 having dovetail grooves 4, a top marginal member 6, and transverse laterally outwardly extending strips 7 and 8 having notches 9 and 10 for receiving a cord 11 to denote the current week. Insertible strips 13 are disposed between the strips 7 and 8, the strips 13 having dovetail grooves 14 for receiving inserts 15 having equal divisions indicated thereon for indicating the required production of a particular order along with certain informative matter relating to the order. Top cross member 3, is shown with the first four columns 17, 18, 19 and 20 showing informative matter relating to production orders such as type, requisition numbers, purchase order numbers and quantity required. It will be evident that as many columns as desired may be provided for this informative matter. An equally divided bottom transverse row 22, on the cross member 3, with equal periodic divisions, indicates on the board in Fig. 1, shown as an illustration, weekly dates; a second transverse row 23 indicates the month, and a third

transverse row 24, with equal periodic divisions indicates chronologically the weeks transpired from the first of the year. Fig. 1 shows the dates as commencing in March. Normally the dates on my control board would start in the first week in January, but it may start in any month or on any date. A vertically extending strip (not shown) may be provided with an item number adjacent each individual order strip 13 if desired.

Clamping strips 26 secured by screw bolts 27 and thumb nuts 28 secure the insertible strips 13 in place on the board 1. The inserts 15 for individual orders has equal periodic divisions corresponding to the equal periodic divisions in rows 22 and 24 on the cross member 3. All information relative to an individual order is indicated on the inserts 15 with the weekly production required for each item indicated and disposed under the weekly date in which it is required in row 22.

The master control board shown in Fig. 1 is normally utilized for major items. When it is desired to set up a schedule for component parts on my novel board, utilizing the master schedule, an insertible strip 70, as shown in Fig. 7, is inserted overlying column 18 and a photograph is taken of the board with the strip inserted in column 18. Instead of the requisition numbers for the major items, the strip 70 will have indicated thereon drawing numbers of the component parts, so that it will be very simple for the men in the shop to follow the schedule in that definite drawing numbers will be shown.

A control strip 30 is inserted between top cross member 3 and marginal member 6 and is slidable crosswise relative to periodically divided rows 22 and 24. The control strip 30 has a row of periodic divisions 31 the same as and equal to the periodic divisions in rows 22 and 24. The divisions, as shown in Fig. 1, are numbered chronologically in opposite directions from a so-called zero point 32. The zero point 32 is provided inasmuch as the week in which production is scheduled to start is very seldom considered in a production control schedule. A material control strip 33 is inserted in a groove 34 in the control strip 30 and has a dovetailed groove 35 for receiving inserts 36, having indicated thereon at predetermined intervals materials to be used in production. Ordinarily, the zero point 32 is placed over the week in which the production is scheduled to start, and by inspection of the insert 36, the corresponding number of weeks from zero point 32 can be obtained from the indications in row 31, in which a particular material is to be ordered before the commencement of a production order.

Figs. 10 to 12, inclusive, show a series of laterally crosswise moving strips for disposal on the top cross member 3 of my board 1. These strips are utilized for changing schedules and for obtaining other information from a production schedule already set up on my novel control board. Slidable member 40 has dovetail grooves 41 on one side thereof and the opposite side of the sliding member 49 has dovetail grooves 43 and 44. Inserts 45 and 46 in grooves 43 and 44 have indicia and like periodic divisions which correspond exactly with that shown in rows 22 and 23 of Fig. 1. A sliding strip 47 has a dovetail groove 48 on one side thereof and on the opposite side thereof has a dovetail groove 49 for receiving an insert 50 which has the same indicia and like numbered periodic divisions as those shown in row 24 of Fig. 1.

The grooves 41 on the back side of sliding member 40 are utilized to retain inserts (not shown) with indicia which is a continuation of the indicia on inserts 45 and 46. This indicia on inserts 45 and 46 may cover one year and the member 40 is turned over and the inserts may be disposed in the grooves 41 and may cover the following year. Likewise, an insert (not shown) may be inserted in groove 48 in member 47 which is a continuation of the indicia shown in insert 50 or any other suitable indicia.

In operating and setting up my novel production control board, an insertible strip 13 having all necessary informative matter thereon and the weekly production required is inserted by means of an insert 15 placed in the groove 14 in the strip 13. In this manner all of the individual orders are set up in seriatim on the board with the weekly production required under the proper week as noted in row 22. The strips 13 when set up are secured by the clamping strip 26. Material for each order is noted by placing the zero point 32 of the strip 31 in alignment with the weekly division in which the production is to start and then inspecting the proper insert 36 having the material that is desired noted thereon and the number of weeks prior to the commencement of the production of the particular order that the material must be ordered can be taken from row 31. The current week in the production schedule is noted by a cord 11 disposed in notches 9 and 10 in strips 6 and 7 as shown in Fig. 1.

When it is desired to change an entire schedule, movable members 40 and 47 are disposed on the cross member 3 overlying rows 22, 23, and 24. For illustration, I will describe a change of the master production schedule for a six week period from the actual time that the board is set up as shown in Fig. 1. Strip 30 is moved cross-wise until the zero point 32 is directly over any desired dated period or it may be disposed in alignment with any dated period for which the schedule is set on the board for commencement. Number six in row 31 is then aligned with a dated period on insert 46, ahead or back of the zero point 32. This dated period will be the commencement of production of the orders in the new master schedule. The strip 40 with insert 46 is then moved to the left or right until the newly selected dated period is in alignment with the zero point 32. A photograph is taken of the board in this position, thereby setting back or ahead the whole production schedule six weeks.

To obtain information relative to the ordering of material for the new dated period selected, the zero point 32 on the insert 31 is aligned with the selected dated period and by inspection of the insert 36 and the corresponding number in the row 31, it can be ascertained how many weeks in advance to order material for the changed production order. The zero point 32 may be placed over the selected dated starting point and the numbers to the right of zero point 32 in row 31 may be inspected to determine the number of weeks after the commencement or the termination of an order that it will be necessary to order material noted on the insert 36, corresponding to the number of weeks noted in row 31.

Under normal conditions the strips 47 and 40 will be positioned on the board at all times so that a production schedule may be changed by mere cross-wise movement of these strips. All divisions are equal so that they are all adapted to be aligned with each other. An individual

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order may be changed by merely inserting an insert 15 in the groove 14 and a photograph may be taken of the board with the new insert 15 in assembled position. Actual production on each order may be inserted weekly in each of the periodic divisions of the insert 15 in order to ascertain what actual production on a particular order has been accomplished. A series of dots or any other suitable means may be provided in the periodic divisions of the insert 15 to facilitate the notation of actual production figures weekly on the master control board.

It will be evident that I have provided a master control board which requires no manual notations to change a production schedule, which requires no manual notations to ascertain material required for an order or orders, and I further provide a board from which any information relative to production orders can be obtained by merely sliding cross-wise members on the board to a position in alignment with other periodic positions on the board.

It will be further evident that the periodic divisions may denote days, weeks, months or any other period of time without departing from my invention. A removable, vertically extending strip (not shown) having divisions in horizontal alignment with the individual order strips may be disposed on either end of my novel production control board to add to or change the informative matter relative to each order.

Various changes may be made in the specific embodiment of my invention without departing from the spirit thereof, or from the scope of the appended claims.

What I claim is:

1. A production control board comprising a slidable strip having equally divided date and chronologically numbered time divisions, insertable individual order slips having equal divisions for alignment with the divisions in said first mentioned strip, and a second sliding strip having corresponding time divisions chronologically numbered on either side of a center point disposed adjacent said first sliding strip for changing the entire production schedule forwardly or backwardly, all of the divisions in said strips being equal and being adapted for vertical alignment.

2. A production control board as set forth in claim 1 wherein said second mentioned sliding member has a material control member with periodic time divisions with material control indicia therein associated therewith.

3. A production control board as set forth in

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claim 1 wherein a third sliding member has consecutively numbered periodic time divisions adapted for alignment with the other divisions in all of said other strips to ascertain the number of weeks elapsed from the first day of a given period of time, said third sliding member being slidably mounted on said board adjacent said first and second mentioned slidable strips.

4. A production control board comprising a board, a transversely slidable strip having equally divided chronologically numbered time divisions, insertable equally divided individual order strips having equally divided divisions adapted for alignment with the time divisions on said slidable strip, a second transversely slidable strip disposed adjacent to said first mentioned slidable strip having consecutively numbered divisions for indicating a particular period of time, a third transversely slidable strip disposed adjacent to said first and second mentioned slidable strips having corresponding time divisions chronologically numbered on either side of a center point, and a material control indicia strip disposed immediately adjacent to said third mentioned slidable strip having equal divisions with material control indicia therein, all of the divisions on all of said strips being equal so that they may be aligned with one another.

5. A production control board as set forth in claim 4 wherein said first mentioned slidable strip has consecutive chronologically numbered time divisions on opposite sides thereof so that it may be reversed.

6. A production control board as set forth in claim 4 wherein said second mentioned slidable strip has consecutively numbered divisions on opposite sides thereof whereby it may be reversed.

ALVIN B. CORZILIUS.

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