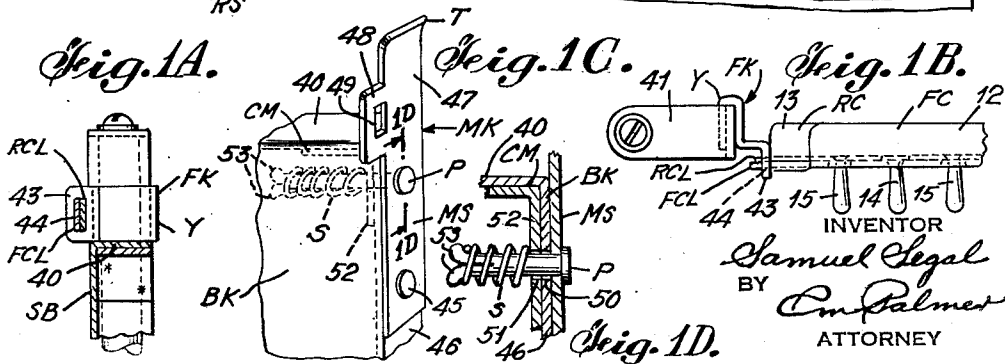


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3 Sheets-Sheet 1



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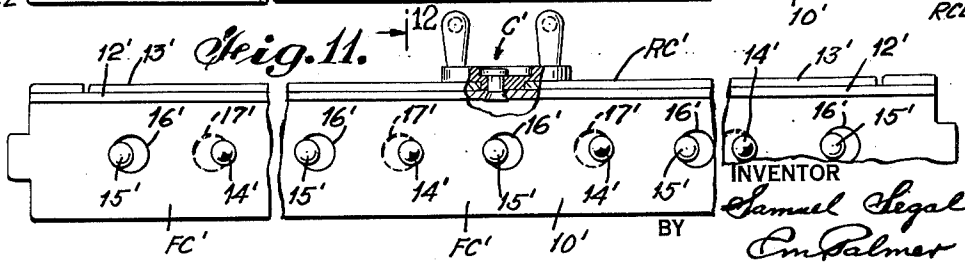
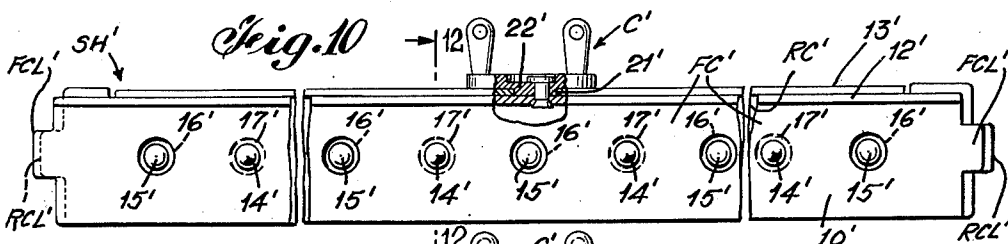
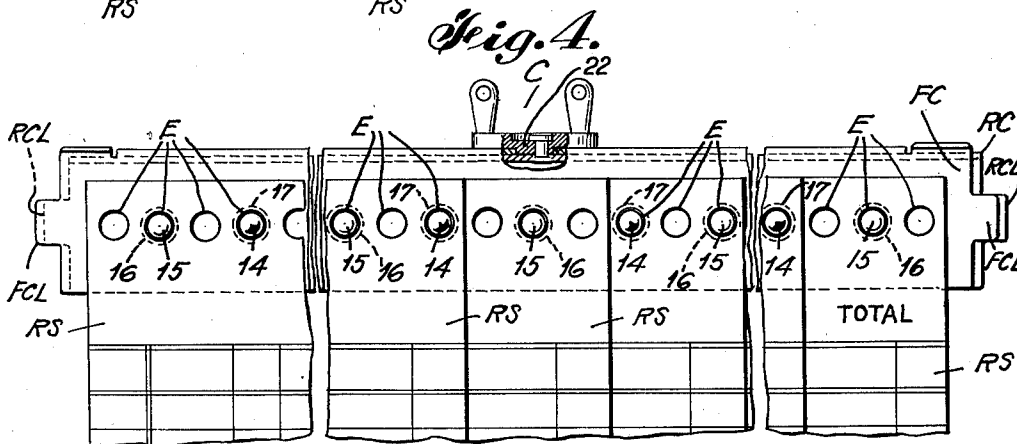
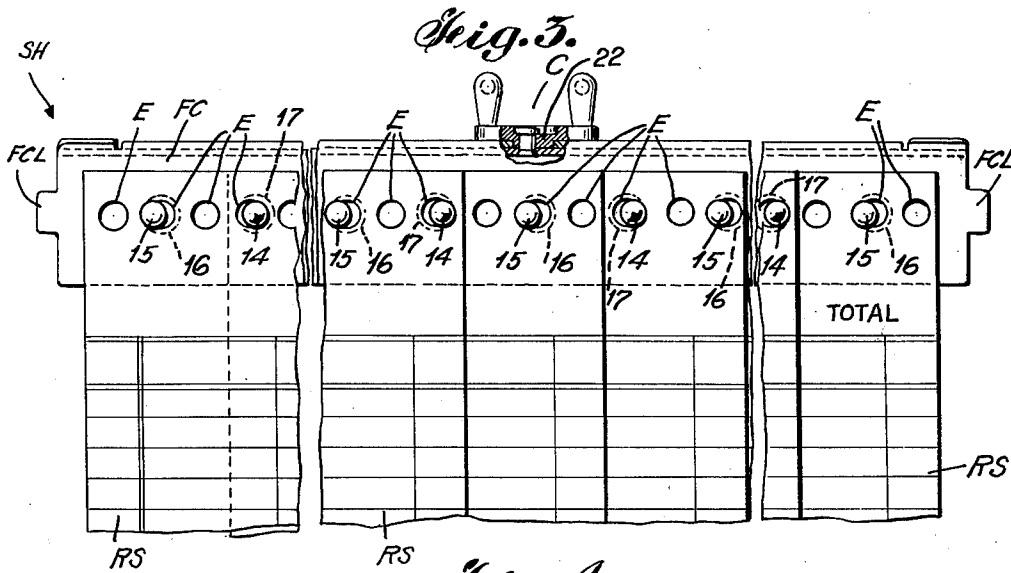
May 11, 1954

S. SEGAL
SUMMARY BOARD

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Filed May 2, 1949

3 Sheets-Sheet 2



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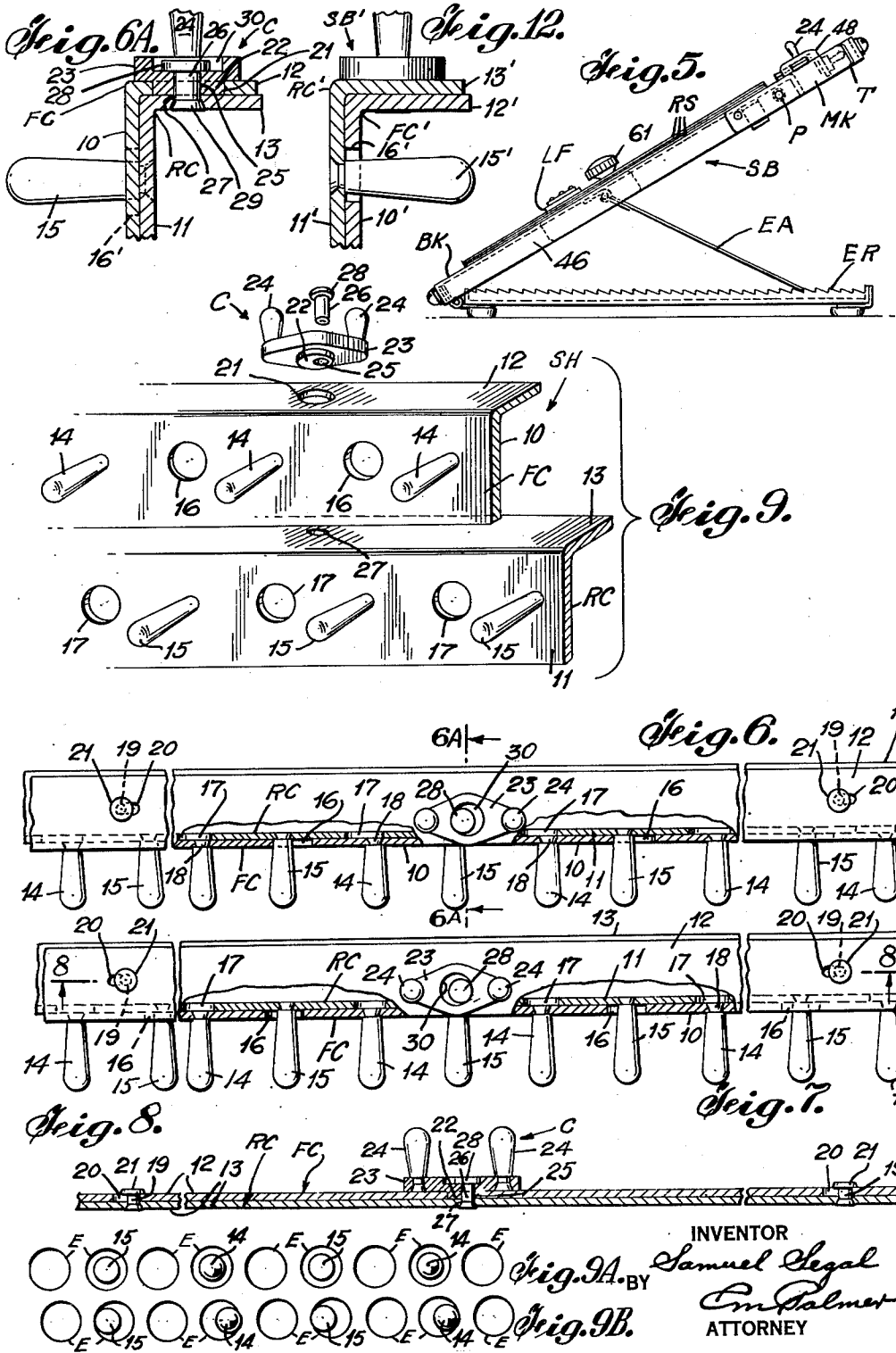
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SUMMARY BOARD

Filed May 2, 1949

3 Sheets-Sheet 3



UNITED STATES PATENT OFFICE

2,678,046

SUMMARY BOARD

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Application May 2, 1949, Serial No. 90,841

11 Claims. (Cl. 129—23)

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The present invention is directed to a service-able summary board having a practical composite holder bar for positioning a plurality of record sheets in shingled relation. More specifically the invention pertains to a novel and simplified summary board embodying a detachable and reversible composite sheet holder including studs or pegs to receive perforated record sheets for readily arranging the latter along the working surface of the summary board in an effective and predetermined shingle formation to provide for prompt cross aligning selective entries of the record sheets with the aid of an adjustable line finder for assuring greater accuracy on integrating the aligned and located entries. Broadly, one principal object and advantage of my invention resides in the provision of an effective composite sheet holder characterized by a pair of superimposed companion bars or components each provided with sheet positioning pegs. The pegs of one of the components are arranged in spaced alternate fashion with the pegs of the companion component and are shiftable in respect thereto. When one of the components is shifted relative to the other, the distance formerly between the pegs or studs in their unclamped relation of the sheet holder is altered to take up the slack or clearance between the pegs or studs and the spaced perforations of the record sheets, thereby clamping or tightening the studs against wall portions of the spaced perforations. As another object, the sheet holder embodies means for slidably guiding one of the components longitudinally of the other, and includes conveniently accessible control means for quickly actuating one of the components relative to the other to clamp or unclamp the record sheets when arranged in superimposed shingled fashion. Another important aspect is realized in the provision of spaced keeper means on the sides of the summary board to detachably sustain the composite sheet holder to allow for prompt bodily removal or reversing thereof. As a further aspect, the invention comprehends the provision of a sheet holder of the character alluded to which may be used independently of the board and may be arranged to lie flat on a supporting surface. Other important aspects, objects, and advantages of the invention will appear from the following detailed specification considered in the light of the accompanying drawings wherein:

Fig. 1 is a plan view of the summary board illustrating the composite sheet holder having

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its pegs or studs clamping the superimposed and shingled record sheets.

Fig. 1A is a vertical sectional view on the line 1A—1A of Fig. 1, exhibiting one of the keepers for threadably receiving one end of the composite sheet holder.

Fig. 1B is a horizontal sectional view on the line 1B—1B of Fig. 1.

Fig. 1C is a fragmentary perspective view of Fig. 1 showing the self retracting and releasable keeper.

Fig. 1D is a sectional view on the line 1D—1D of Fig. 1C.

Fig. 2 is a fragmentary view similar to Fig. 1 however with a composite sheet holder reversely attached to the spaced keeper means at the sides of the backing or support of the summary board.

Fig. 3 is an enlarged broken plan view of the sheet holder illustrating the pegs or studs thereof clamping the shingled record sheets.

Fig. 4 is a view along the lines of Fig. 3 but showing the sheets unclamped.

Fig. 5 is a side view of the summary board shown in Fig. 1 but with the swingable easel thereof holding the record sheet support or backing thereof in an inclined position.

Fig. 6 is a longitudinal view taken along the line 6—6 of Fig. 1 and shown partly broken away.

Fig. 6A is a transverse sectional view on the line 6A—6A of Fig. 6.

Fig. 7 is a view similar to Fig. 6 but with the composite sheet holder in an unclamping relation.

Fig. 8 is a sectional view on the line 8—8 of Fig. 7.

Fig. 9 is an enlarged fragmentary perspective and exploded view of composite sheet holder and the eccentric control means for actuating one of the components or bars thereof relative to the other.

Fig. 9A is a schematic view showing the unclamped relation of the equally distant studs or pegs in respect to the walls of the spaced perforations of the record sheets.

Fig. 9B is a view along the lines of Fig. 9A but showing the clamped relation of the now unequally spaced studs or pegs and the perforations.

Fig. 10 is a plan view of a slightly modified composite sheet holder showing the stud or pegs thereof in an unclamped relation.

Fig. 11 is a fragmentary view of Fig. 10 but with the sheet holder in a clamping relation, and

Fig. 12 is a transverse sectional view on the line 12—12 of Fig. 10.

In the form according to Figs. 1-9 the summary board is generally designated SB and sustains the composite sheet holder SH which comprises complementary front and rear angle bars or components FC and RC having rectilinear and flat webs 10 and 11 and the flanges 12 and 13 respectively. Preferably each web and its respective flange forms a right angle as shown, although the rear component RC is nested within the front component FC to support the latter in such fashion that the webs 10 and 11 thereof are disposed in superimposed relation while their flanges 12 and 13 are arranged in juxtaposition when the sheet holder SH is sustained on the backing or support BK. The support BK includes a swingable easel E adapted to be removably retained in a locked and tiltable position by suitable rack means ER appropriately adapted, together with easel EA, to be telescoped within the hollow sheet metal backing BK to permit the latter to lie flatwise on a supporting surface when desired.

Referring again to the composite sheet holder SH, web 10 of the front component FC fixedly carries the spaced but anchored studs or pegs 14 while web 12 of the rear component RC has secured thereto pegs or studs 15 extending in the same direction as studs 14 but projecting through the circular relatively large spaced openings 16 in web 10 of the front component FC. These studs serve as positioning means for the record sheets RS having equally spaced perforations E at the upper margins for threadably receiving the spaced studs of both components to permit the several record sheets RS to be arranged in shingled relation. Perforations E of the record sheets are slightly larger than the widest diameter of the studs and consequently the record sheets in their overlapped but unclamped relation have some play in respect to these studs.

Perforations 16 are much larger than studs 15 to allow for bodily displacement of the front component relative to the rear component. It will also be observed that although the free ends of the pegs or studs 14 and 15 are rounded, the bodies thereof are cylindrical and tapered, having their sides converging toward the webs 10 and 11, respectively, of the components to which they are secured. Relief openings 17 in web 11 of the rear component RC are in back of the studs 14 of the front component FC to permit relative displacement of the companion components even though burrs or projections might remain on the upset necks 18 of the studs 14 on anchoring the latter to component web 10.

To assure rectilinear displacement of the front component relative to the rear component, the latter has fastened to flange 13 thereof the spaced rivets 19 (Fig. 8) closely but movably guided between and straddled by the spaced sides of the spaced and slightly elongated slots 20 interrupting flange 12 (Figs. 6, 7 and 8) held movably against the companion flange 13 by heads 21 of rivets 19. By this arrangement the companion components are retained in a close nested relation and can be rectilinearly displaced relative to each other to the extent of the length of a slot 20.

Conveniently operable control means is employed to actuate the front component bodily relative to the rear component. For this purpose, flange 12 is provided with the circular bore or bearing 21 movably receiving the circular boss 22 integrally depending from the rotatable lever or plate 23 provided with the spaced finger

grasping portions 24. Of importance to note is that the circular depending boss 22 is provided with the eccentrically arranged bore 25 for receiving shank of the rivet 26 which also passes through opening 27 in flange 13. In fact, boss 22 is an eccentric or cam held rotatably about rivet 26 and in bearing or bore 21 by the upset end 29 and head 28 which is disposed in recess 30. As shown in Fig. 7, the studs or pegs 14 and 15 are in a neutral or unclamping relation, that is, equally spaced apart to permit reception or removal of the perforated record sheets RS from the backing BK. If it be assumed that the sheets are on the pegs and if the finger grasping portions 24 are manipulated to operate the eccentric control C, the eccentric member 22 actuates the wall of bore 21 in flange 12, thus bodily displacing the front component to the clamping relation shown in Fig. 6 at which time pins 19 strike corresponding ends of the elongated slots 20. Or in other words the distance between the pegs 14 and 15 of both components have altered (Fig. 9B) to take up the slack or clearance formerly existing between the pegs in the unclamped relation (Figs. 6 and 9A) and the walls of the spaced perforations E. By rotating the eccentric control C in a counterdirection, the action of the eccentric member 22 on the wall or bearing 21 causes the front component to be linearly retracted to its normal unclamped position (Fig. 7), at which time pins 19 strike the other corresponding ends of slots 20 and studs 15 (Fig. 7) are substantially concentrically disposed within the spaced openings 16 (Fig. 6) of the front component. In this position the studs of the front component are equally spaced from the studs or pegs of the rear component and studs 14 and 15 are concentrically arranged within the spaced perforations E (Fig. 9A) of the shingled record sheets RS to permit their removal or replacement from or on the studs of both of the components. In other words, with the studs 14 and 15 concentrically within perforations E, the walls of the latter are unclamped from these studs.

Effectively mounted at the upper part of the backing BK are the spaced keepers FK and MK. Keeper FK is fixed and is characterized by the yoke Y (Figs. 1 and 1B) straddling and appropriately fastened slightly above the top edge 40 of the hollow backing BK to the upper end of the U-shaped bracket B effectively anchored to one side of backing BK and having the spaced arms 41 and 42 for holding rack R. Offset but integral with yoke Y is the lug 43 having opening 44.

The movable keeper MK is a self retracting metal strip MS having its lower end only fixed by rivet 45 to side 46 of backing BK and having its upper part 47 extending above the top wall 40 thereof. Lug 48 is integral with part 47 and is provided with the opening 49 which cooperates with aligned opening 44 to removably receive the juxtaposed lugs FCL and RCL extending laterally at each end of the front and rear components FC and RC.

As previously stated the movable keeper MK is self retracting due to the action of the helical spring S surrounding pin P fixedly anchored to strip MS and loosely and slidably guided in opening 50 in side wall 46 and in the aligned opening 51 of the angle corner member CM welded to the top wall 40 and side wall 46 within backing BK. Spring S is normally expanded and has its ends abutting the vertical leg 52 of the corner member CM and the diverged

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lips 53 formed by splitting the shank of pin P. By this arrangement the spring plate or strip MS is normally yieldingly retained by the action of the spring against side 46 of the summary board backing.

In Fig. 1 the record sheets RS are clamped to the sheet holder SH which is retained in place above the top of the backing BK by the spaced keepers FK and MK. The record sheets are also in shingled or overlapped relation and with entries thereof (not shown) horizontally aligned. To facilitate locating such horizontally aligned entries for totalling or integrating thereof, a conventional line finder LF is employed and is linearly guided on bracket B. This finder is secured to the carriage 60 adapted to be reciprocated on manipulating of the accessible knob 61 to rotate pinion 62 in mesh with rack R. The carriage 60 is conventionally swingable held in respect to rack R and consequently the line finder when desired may be lifted from the shingled record sheets which therefor can be quickly unclamped and removed from the sheet holder, or the record sheets may be left clamped to the sheet holder and the latter reversed as shown in Fig. 2 to utilize the back faces of these record sheets. To this end, the arcuate and overhanging lip or terminal T of the movable keeper MK is flexed downwardly, thus withdrawing opening 49 of lug 48 from the adjacent lugs FCL and RCL of the front and rear components FC and RC, permitting the composite sheet holder SH to be withdrawn and removed from the fixed keeper FK after which the sheet holder can be quickly reversed from its position shown in Fig. 1 to the position illustrated in Fig. 2 and again retained and held locked by the spaced keepers FK and MK. If desired, the sheet holder SH may be used even though not sustained by the spaced keepers and independently of the backing BK of the summary board. In addition the sheet holder may be sustained flatwise on an appropriate work surface. For this purpose the form illustrated in Figs. 10 to 12 is utilized wherein the front component FC' is nested within the rear component RC' and their flanges 12' and 13' now extend forwardly of the webs 10' and 11' whereby web 11' may rest on a horizontal surface without interference on the part of the forwardly extending flanges 12' and 13'. In Figs. 10-12, eccentric 22' of the control C' co-operates with the bearing 21' of flange 13' for shifting the rear component RC' relative to the front component FC'. In other aspects the form according to Figs. 10 to 12 is along the lines of the embodiment shown in Figs. 1-9 but in Figs. 10-12 corresponding structural features have been primed.

In all the forms disclosed, the driven component such as FC in Figs. 1-9 and RC' in Figs. 10-12 is bodily shifted relative to their respective companion components RC and FC' upon manipulation of the driving eccentric control means such as C or C'.

Various changes may be made in details of construction and arrangement of parts without departing from the spirit of the invention or sacrificing any of the advantages thereof inherent therein.

I claim:

1. A composite holder for record sheets provided with a series of spaced perforations; comprising, a driven component including a bore and having spaced studs adapted to project into spaced perforations of said series and including spaced

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openings disposed alternately in respect to said studs, a companion component having spaced pegs smaller cross sectionally than said openings projecting through said openings and adapted to project into intervening perforations between said spaced perforations, said component having means for linearly guiding the displacement of said driven component relative to said companion component, and rotatable control means having an eccentric disposed within said bore for actuating said driven component relative to said companion component to shift said studs towards and away from said pegs for removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter.

2. A composite holder for record sheets provided with a series of spaced perforations; comprising, a driven component including a bore and having spaced studs adapted to project into spaced perforations of said series and including spaced openings disposed alternately in respect to said studs, a companion component disposed in juxtaposition in respect to said driven component and having spaced pegs smaller cross sectionally than said openings projecting through said openings and adapted to project into intervening perforations between said spaced perforations, said components having means for linearly guiding the displacement of said driven component relative to said companion component, and rotatable control means carried by said holder and having an eccentric disposed within said bore for actuating said driven component relative to said companion component to shift said studs towards and away from said pegs for removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter.

3. A composite holder for record sheets provided with a series of spaced perforations; comprising, a driven component including a bore and having spaced studs adapted to project into spaced perforations of said series and including spaced openings disposed alternately in respect to said studs, a companion component nested relative to said driven component and having spaced pegs smaller cross sectionally than said openings projecting through said openings and adapted to project into intervening perforations between said spaced perforations, said components having means for linearly guiding the displacement of said driven component relative to said companion component, rotatable control means having an eccentric disposed within said bore for actuating said driven component relative to said companion component to shift said studs towards and away from said pegs for removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter, and said components having means to limit linear displacement of said driven component relative to said companion component.

4. A composite holder for record sheets provided with a series of spaced perforations; comprising, a driven component including a bore and having spaced studs adapted to project into spaced perforations of said series and including spaced openings disposed alternately in respect to said studs, a companion component having spaced pegs smaller cross sectionally than said openings projecting through said openings and adapted to project into intervening perforations between said spaced perforations, said components having slot and pin means for linearly guiding the displacement of said driven compo-

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nent relative to said companion component, rotatable control means having an eccentric disposed within said bore for actuating said driven component relative to said companion component to shift said studs towards and away from said pegs for removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter, and manipulatable means carried by said control means.

5. A composite holder for record sheets provided with a series of spaced perforations; comprising, an angle shaped driven bar including a bore and having spaced studs adapted to project into spaced perforations of said series and including spaced openings disposed alternately in respect to said studs, an angle shaped companion bar nested relative to said driven bar and having spaced pegs smaller cross sectionally than said openings projecting through said openings and adapted to project into intervening perforations between said spaced perforations, said bars having slot and pin means for linearly guiding the displacement of said driven component relative to said companion component, rotatable control means having an eccentric disposed within said bore for actuating said driven bar relative to said companion bar to shift said studs towards and away from said pegs for removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter, and manipulatable means carried by said control means.

6. A composite holder for record sheets provided with a series of spaced perforations; comprising, an angle shaped driven bar including a flange having a bore and including a web having spaced studs adapted to project into spaced perforations of said series and spaced openings disposed alternately in respect to said studs, an angle shaped companion bar nested relative to said driven bar and having a flange disposed contiguous to said first mentioned flange and having a web arranged in juxtaposition to said first mentioned web and having spaced pegs smaller cross sectionally than said openings projecting through said openings and adapted to project into intervening perforations between said spaced perforations, said bars having slot and pin means for linearly guiding the displacement of said driven bar relative to said companion bar, rotatable control means having an eccentric disposed within said bore for actuating said driven bar relative to said companion bar to shift said studs towards and away from said pegs for removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter, and manipulatable means carried by said control means.

7. A composite holder for record sheets provided with a series of spaced perforations; comprising, a driven component including a bore and having spaced pegs adapted to project into spaced perforations of said series, a companion component having spaced studs adapted to project into intervening perforations between said spaced perforations and having spaced openings disposed alternately in respect to said studs and larger than said pegs for receiving the latter, said components having means for linearly guiding the displacement of said driven component relative to said companion component, rotatable control means having an eccentric disposed within said bore for actuating said driven component relative to said companion component to shift said pegs towards and away from said studs for

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removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter.

8. A composite holder for record sheets provided with a series of spaced perforations; comprising, a driven component including a bore and having spaced pegs adapted to project into spaced perforations of said series, a companion component having spaced studs adapted to project into intervening perforations between said spaced perforations and having spaced openings disposed alternately in respect to and larger than said pegs for receiving the latter, said components having slot and pin means for linearly guiding the displacement of said driven component relative to said companion component, rotatable control means having an eccentric disposed within said bore for actuating said driven component relative to said companion component to shift said pegs towards and away from said studs for removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter, and said pin means cooperating with said components to hold the latter in contiguous relation.

9. A composite holder for record sheets provided with a series of spaced perforations; comprising, an angle shaped driven bar including a bore and having spaced pegs adapted to project into spaced perforations of said series, an angle shaped companion bar having spaced studs adapted to project into intervening perforations between said spaced perforations and having spaced openings disposed alternately in respect to and larger than said pegs for receiving the latter, said bars having means for linearly guiding the displacement of said driven bar relative to said companion bar, and rotatable control means having an eccentric disposed within said bore for actuating said driven bar relative to said companion bar to shift said pegs towards and away from said studs for removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter.

10. A composite holder for record sheets provided with a series of spaced perforations; comprising, an angle shaped driven bar including a bore and having spaced pegs adapted to project into spaced perforations of said series, an angle shaped companion bar in part disposed forwardly of and nested within said driven bar and having spaced studs adapted to project into intervening perforations between said spaced perforations and having spaced openings disposed alternately in respect to and larger than said pegs for receiving the latter, said bars having pin and slot means for linearly guiding the displacement of said driven bar relative to said companion bar, and rotatable control means having an eccentric disposed within said bore for actuating said driven bar relative to said companion bar to shift said pegs towards and away from said studs for removably clamping said studs and pegs projecting through said spaced perforations against the walls of the latter.

11. A composite holder for record sheets provided with a series of spaced perforations; comprising, a driven component including a bore and a companion component, one of said components having spaced studs adapted to project into spaced perforations of said series and including spaced openings disposed alternately in respect to said studs, said other component having spaced pegs smaller cross sectionally than said openings projecting through said openings and adapted to

project into intervening perforations between said spaced perforations, said companion component having means for linearly guiding the displacement of said driven component relative to said companion component, and rotatable control 5 means having an eccentric disposed within said bore for actuating said driven component relative to said companion component to shift said studs and pegs relative to each other for removably clamping said studs and pegs projecting 10

through said spaced perforations against the walls of the latter.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,479,919	Meyer et al. -----	Jan. 8, 1924
1,487,939	Hadley -----	Mar. 25, 1924
1,883,255	Unger -----	Oct. 18, 1932
2,109,066	Haskell et al. -----	Feb. 22, 1938