June 20, 1939. W. O. CRITCHFIELD 2,163,193

MANIFOLDING APPLIANCE

Filed Aug. 10, 1936 2 Sheets-Sheet 1

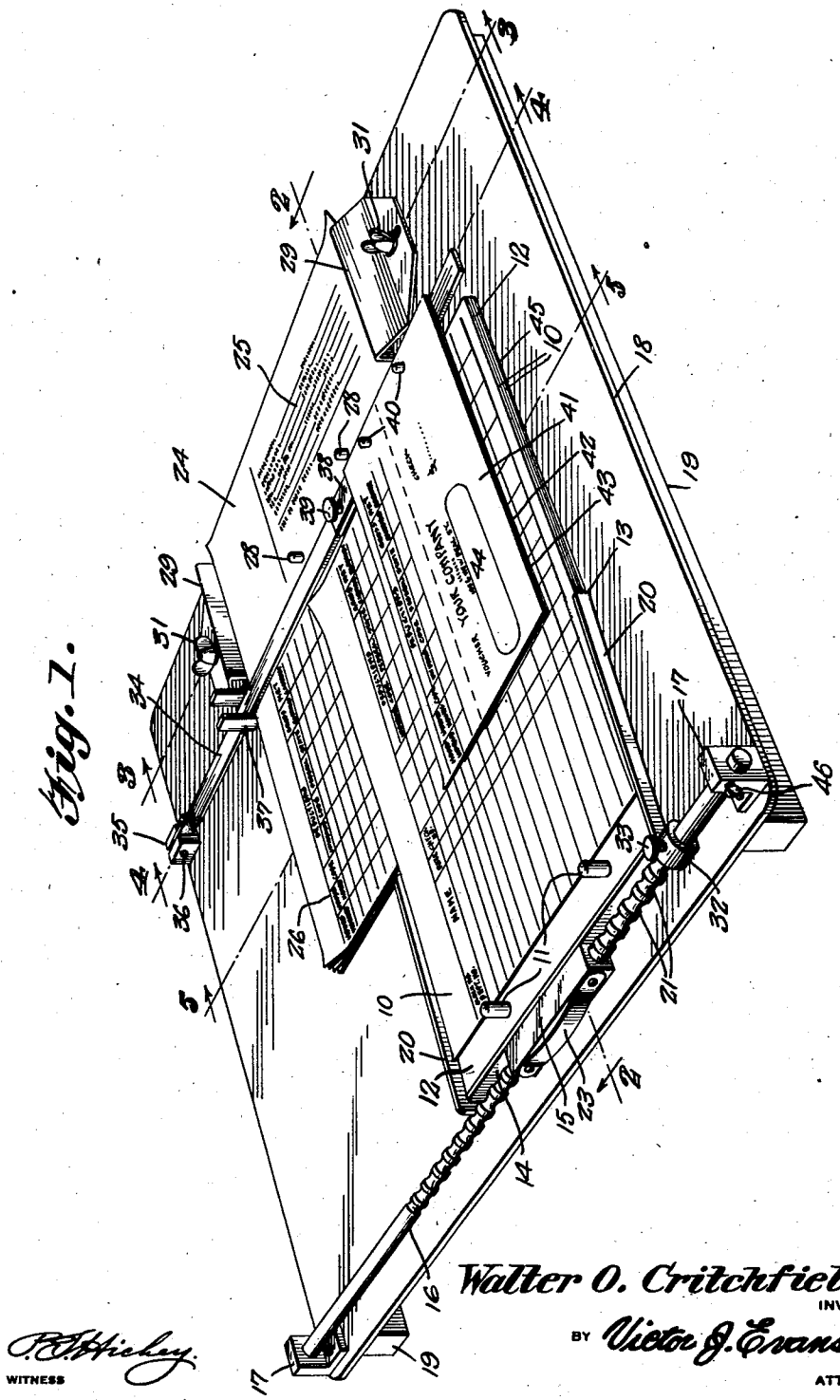


Fig. 1.

Walter O. Critchfield,
INVENTOR

BY Victor J. Evans & Co.
ATTORNEYS

WITNESS

June 20, 1939. W. O. CRITCHFIELD 2,163,193

MANIFOLDING APPLIANCE

Filed Aug. 10, 1936 2 Sheets-Sheet 2

Fig. 2.

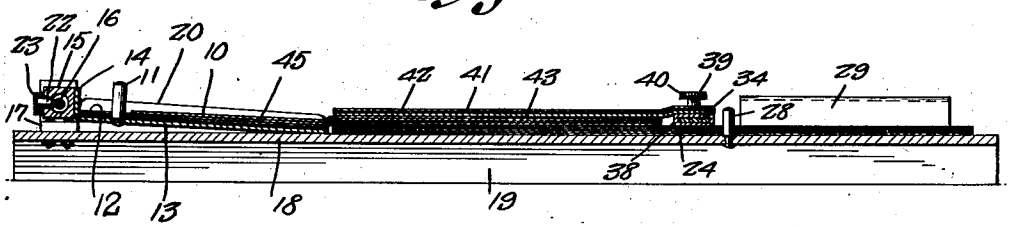


Fig. 3.

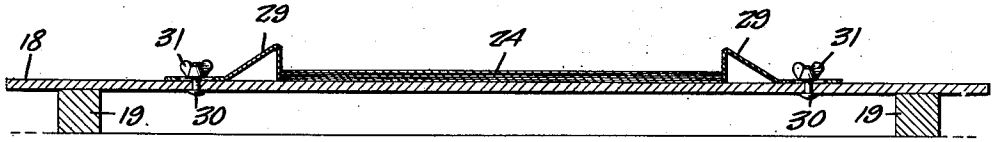


Fig. 4.

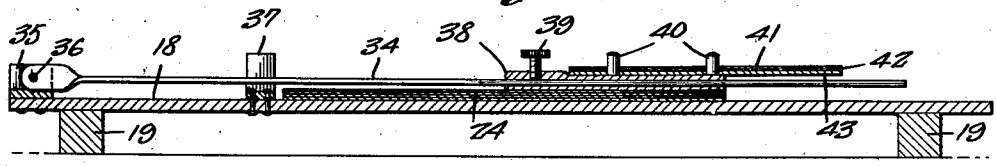
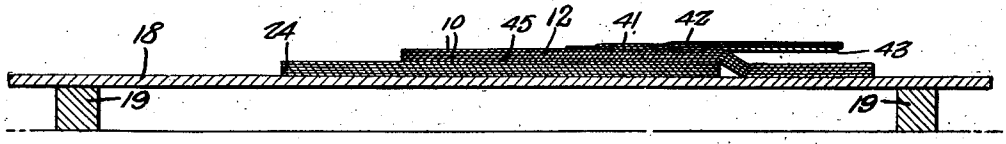


Fig. 5.



Walter O. Critchfield,
INVENTOR

BY Victor J. Evans & Co.
ATTORNEYS

WITNESS

Patented June 20, 1939

2,163,193

UNITED STATES PATENT OFFICE

2,163,193

MANIFOLDING APPLIANCE

Walter O. Critchfield, Shelby, Ohio, assignor to Shelby Salesbook Company, Shelby, Ohio, a corporation of Ohio

Application August 10, 1936, Serial No. 95,274

5 Claims. (Cl. 282—29)

The object of the invention is to provide a manifolding device or appliance by the use of which information from a record sheet may be transferred to a plurality of other sheets simultaneously by copying on one of the latter, as for instance, in transferring information from a time card to a check in paying the wages of an employee and simultaneously transferring the data to a journal sheet and ledger sheet or card; to provide a manifolding device arranged to carry a ledger sheet, such as a journal sheet, on which a plurality of records are indited, and to mechanically provide for its adjustment with respect to a plurality of other sheets, so that as the items are entered on the record sheet they may be automatically transferred each to its corresponding sheet of the plurality; to provide a manifolding device arranged to carry a record sheet with various items of information, and a plurality of other sheets identified with each item and equipped to carry individually a third series of sheets, so that in entering the items on each sheet of the third series, the information will be simultaneously transferred to the record sheet and simultaneously to each sheet of the plurality; to provide a manifolding device which is positive in its operation in positioning the various sheets and adjustable to selectively position the sheets to establish a definite relation in transferring the information or items from one to the other; and generally to provide a manifolding device which is of simple form and susceptible of cheap manufacture with respect to the various functions which it is designed to perform.

With this object in view, the invention consists in a construction and combination of parts of which a preferred embodiment is illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective view of the invention.

Figures 2, 3, 4 and 5 are sectional views on the planes indicated by the lines 2—2, 3—3, 4—4 and 5—5 respectively of Figure 1.

Although adapted for the ready transfer of information or items from record sheets or cards individually to other sheets with which the items are identified, the invention has particular use in payroll recording in which the journal sheet 10 is ruled in columns for the names of the employees and the different information respecting them with regard to hours worked, wages, etc. The journal sheet 10 may be a single sheet, or a folded sheet, as shown, with the under layer extending beyond one end of the upper layer and formed with perforations so that it may be seated on the journal sheet holder with the pins 11 passing through the perforations. By this arrangement, the journal sheet may be made in duplicate by reason of the carbon sheet 12 which is disposed between the two layers and likewise formed with the perforations for the reception of the pins 11.

The pins 11 are elements of the journal sheet holder which is in the form of a plate 13 formed with an upturned flange 14 to which is secured a slide 15, the slide being in the form of a block having a longitudinal bore so that it may have a sliding movement on the rod 16. The rod 16 is terminally carried in angle brackets 17 supported on the upper face of a base 18 which may be wood, Bakelite or any acceptable material and which is preferably carried on rails 19, so that when placed on a desk or table, the base may be spaced from the latter. The plate 13, at its upper and lower edges is formed with the upturned flanges 20, which act as guides for the edges of the journal sheet 10 for so much of the latter as lies on the plate.

The rod 16 is formed with a series of uniformly spaced circumferential notches 21 with which may engage a latch pin 22, the latter being slidably mounted in a hole formed in the slide 15 transversely to its longitudinal bore and being pressed in toward the rod by means of an arched leaf spring 23 which, at its center, bears on the outer end of the pin. This particular arrangement provides for movement of the slide along the rod and for retaining it and the journal sheet holder in any of the various positions of the latter on the base, the pin 22 providing a readily releasable locking connection for the slide.

The ledger sheets 24 are disposed upon the upper face of the base 18 and consist of a stack of which one is identified with each of the names in the name column of the journal sheet, the stack of ledger sheets being preferably in the same order of arrangement as the names in the name column of the journal sheet. The ledger sheets are formed each with an area 25 for the purpose of inscribing the necessary data with respect to the item or employee with which or whom the sheet is identified. The ledger sheet also has an information area 26 for the reception of the data from the information area of the journal sheet. The ledger sheet is of a size to extend from the free edge of the plate 13 to the remote edge of the base but is definitely positioned on the latter through the instrumentality of pins 28 and guides 29, the pins 28 being

fixed in the base and the guides 29 being removably secured to the base by bolts 30, which are secured to the base and pass through the guides, and wing nuts 31, which engage the bolts and bear upon the guides. The guides are spaced according to the length of the ledger sheets, so that the upper and lower edges touch them. This arrangement insures the maintenance of the stack of ledger sheets uniformly one above the other, keeping the edges of the sheets flush, while the pins 28 preclude any movement of the sheets in a direction at right angles to that in which movement is arrested by the guides. The pins alone might maintain the desired position of the ledger sheets, since the perforations in the latter are such as to fit the pins snugly but the guides are an additional means to maintain uniformity in the stack of sheets.

A collar 32 mounted on the rod 16 is releasably retained in any desired position of adjustment on the rod by means of a finger screw 33, the collar being provided as an adjustable abutment or limiting stop for the slide block 15.

A flat bar 34 has one extremity turned axially 90° and disposed within the slot in a block 35 mounted on the base 18 at the upper edge, the slot being spanned by a pin or screw 36 which passes through the turned end of the bar which provides a pivotal mounting. Just above the stack of ledger sheets is positioned a cross sectionally U-shaped guide 37, between the legs of which the bar is received when lying flat on the base and in this position it is close to and in parallelism with a plane passing through the centers of the pins 28.

The bar 34 carries a slide 38 which may be held in any positions of adjustment on the bar by means of a hand screw 39, the slide being provided with spaced pins 40, so that the check 41, the underlying carbon sheet 42 and the card 43 may be mounted on the slide. The check is formed with an information area 44 and the card 43 is cut away directly below this information area, so that notations made on it will be transferred to the journal sheet below it.

In order to indite information on the ledger sheets, a carbon sheet 45 is carried on the journal sheet holder and, being of the same area, of the later, overlies the ledger sheets.

In the use of the invention, the first operation is the placement of the ledger sheets 24 which, as before stated, are arranged in the order in which the names appear in the name column of the journal sheet, say, with the uppermost ledger sheet corresponding to the first name in the name column of the journal sheet. Raising of the bar 34 is necessary before the placing of the ledger sheets but after the latter have been positioned, the bar 34 is swung down on top of them and within the guide 37. Then the check holder is next adjusted and this is accomplished by placing a check over the pins 40 and setting the slide 38 so that the information area of the check will register with the transversely aligned spaces on the ledger sheet in which it is desired to enter the data. The next operation is the placement of the carbon sheet 45 on the journal sheet holder and the positioning of the single or dual journal sheet on top of the carbon. The notches or seats 21 are so spaced that any name in the name column can be made to register with any transversely aligned spaces on the ledger sheet and the journal sheet holder is initially set to align, say, the first name with the spaces on the ledger sheet in which the information is to be entered. Then the card 43, carbon sheet 42 and check 41 are placed on the check holder, the name having been previously written on the check. The first check being for the same name as the first name in the name column, the entries are made from time cards or from other information sheets and, being made on the check, are transferred by means of the underlying carbon sheet, to the journal sheet, and the duplicate of the latter if used, and then to the ledger sheet. Then the check is displaced and the check for the next name substituted, the journal sheet holder being raised one notch which will position the next name at the point previously occupied by the first name. But the ledger sheet on which the information has been entered must be removed and this is accomplished by grasping the right hand edge of the same, lifting it enough to clear the pins 28 and then pulling it to the right from under the bar 34 and the journal sheets. The removal of the ledger sheet on which the information has been entered leaves the next ledger sheet for the entering of the information corresponding to the next name at the same point on that ledger sheet as was made on the previous ledger sheet and at the same time permits the entry of such information on the journal sheet at the time that the check for the next name is being written.

The collar 32 may be adjusted to follow the position of the journal sheet holder in each adjustment so as to guard against any accidental displacement of the journal sheet holder that might be made without notice.

In cases where the checks are not employed, the information from the time cards may be entered directly on the journal sheet and simultaneously transferred to each of the ledger sheets.

The rod 16 has a sliding mounting in the brackets 17, in the lower one of which is mounted a set screw 46 which bears upon the rod. This arrangement provides for initial adjustment of the rod to properly position it for the location of its notches with respect to the spaces in the information area of the ledger sheets.

The invention having been described, what is claimed as new and useful is:

1. In a manifolding appliance for use with a data sheet having a name column and adjacent information area and a stack of record sheets for individual identification with the names in the name column of the data sheet, the improvement which comprises a data sheet holder to support the data sheet with the information area thereof extending beyond the holder, fixed spaced pins extending through perforations in the record sheets for maintaining the stacked relation of the latter directly below the information area of the data sheet, spaced guides abutting the record sheets on opposite edges to maintain the flush relation of said edges, and means for adjusting the data sheet holder to position and definitely maintain the latter with any name in the name column at a predetermined point with respect to the stack of record sheets, the data sheet holder having means to secure the data sheet thereon with a sheet of transfer paper intervening between the information area thereof and the uppermost of the record sheets.

2. In a manifolding appliance for use with a data sheet having a name column and adjacent information area and a stack of record sheets for individual identification with the names in the name column of the data sheet, the improvement which comprises a data sheet holder to

support the data sheet with the information area thereof extending beyond the holder, means for maintaining the stacked relation of the record sheets directly below the information area of the data sheet, a fixed rod formed with notches spaced according to the spacing of the names in the name column of the data sheet, a slide mounted on the rod and carrying a spring pressed latch pin engageable in the notches, the data sheet holder being fixed to said slide, and means for releasably securing the data sheet to the holder with a sheet of transfer paper therebeneath to intervene between the information area thereof and the uppermost of the record sheets.

3. In a manifolding appliance for use with a data sheet having a name column and adjacent information area, a stack of record sheets for individual identification with the names in the name column of the data sheet and checks individually identified with the names in the name column of the data sheet, the improvement which comprises a data sheet holder to support the data sheet with the information area thereof extending beyond the holder, means for maintaining the stacked relation of the record sheets directly below the information area of the data sheet, means for adjusting the data sheet holder to position and definitely maintain the latter with any name in the name column thereof at a predetermined point with respect to the stack of record sheets, the data sheet holder having means to secure the data sheet thereon with a sheet of transfer paper intervening between the information area thereof and the uppermost of the record sheets, a check holder for the individual reception of the checks and retain the latter with a sheet of transfer paper therebeneath, and means for adjusting the check holder to selectively position the check and its transfer paper over the information area of the data sheet.

4. In a manifolding appliance for use with a data sheet having a name column and adjacent information area, a stack of record sheets for individual identification with the names in the name column of the data sheet and checks individually identified with the names in the name column of the data sheet, the improvement which comprises a data sheet holder to support the data sheet with the information area thereof extending beyond the holder, means for maintaining the stacked relation of the record sheets directly below the information area of the data sheet, means for adjusting the data sheet holder to position and definitely maintain the latter with any name in the name column thereof at a predetermined point with respect to the stack of record sheets, the data sheet holder having means to secure the data sheet thereon with a sheet of transfer paper intervening between the information area thereof and the uppermost of the record sheets, a check holder for the individual reception of the checks and retain the latter with a sheet of transfer paper therebeneath, and means for adjusting the check holder to selectively position the check and its transfer paper over the information area of the data sheet, the check holder being provided with means to permit elevation of the check without disturbance to its previously adjusted position, so that it may be returned to such position after elevation.

5. In a manifolding appliance for use with a data sheet having a name column and adjacent information area, a stack of record sheets for individual identification with the names in the name column of the data sheet and checks individually identified with the names in the name column of the data sheet, the improvement which comprises a data sheet holder to support the data sheet with the information area thereof extending beyond the holder, means for maintaining the stacked relation of the record sheets directly below the information area of the data sheet, means for adjusting the data sheet holder to position and definitely maintain the latter with any name in the name column thereof at a predetermined point with respect to the stack of record sheets, the data sheet holder having means to secure the data sheet thereon with a sheet of transfer paper intervening between the information area thereof and the uppermost of the record sheets, a check holder for the individual reception of the checks and retain the latter with a sheet of transfer paper therebeneath, and a bar on which the check holder is adjustably mounted to position the check and transfer paper at selected points on the information area of the data sheet, the bar having a swinging mounting at one extremity to removably support the check holder over the information area of the data sheet.

WALTER O. CRITCHFIELD.