July 21, 1953 L. PERKEL 2,646,292

MULTIPLE RECORDING OF INFORMATION

Filed Aug. 6, 1952

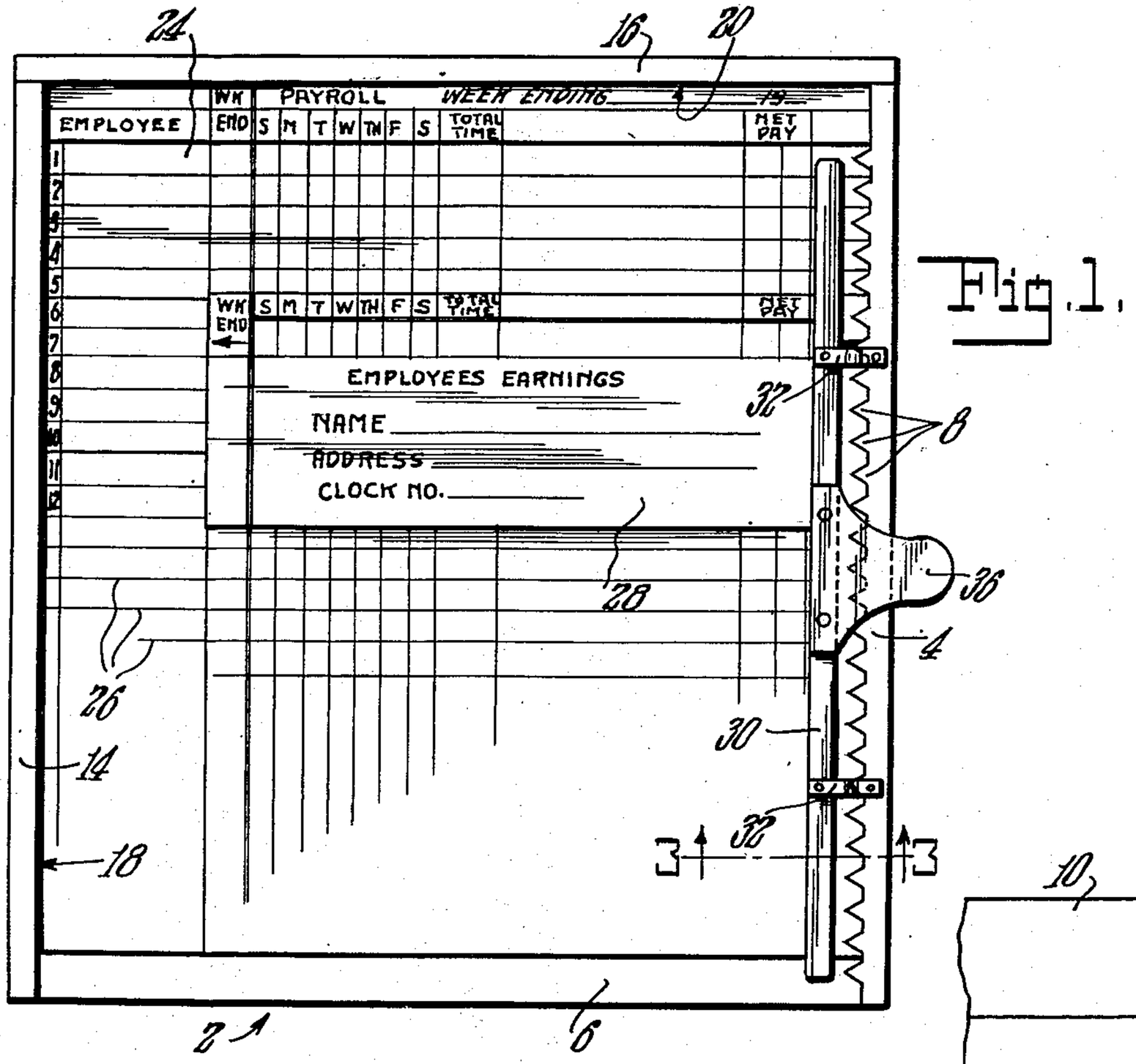


Fig. 1.

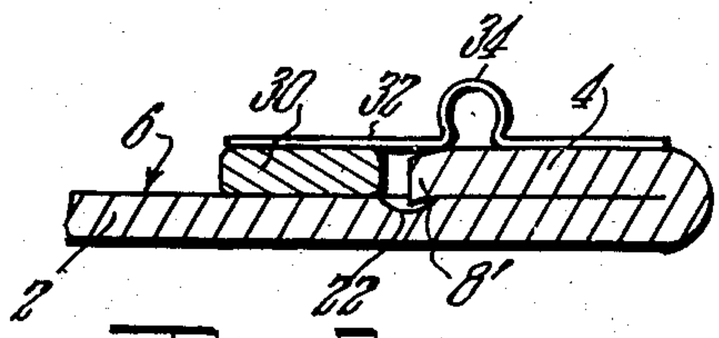


Fig. 3.

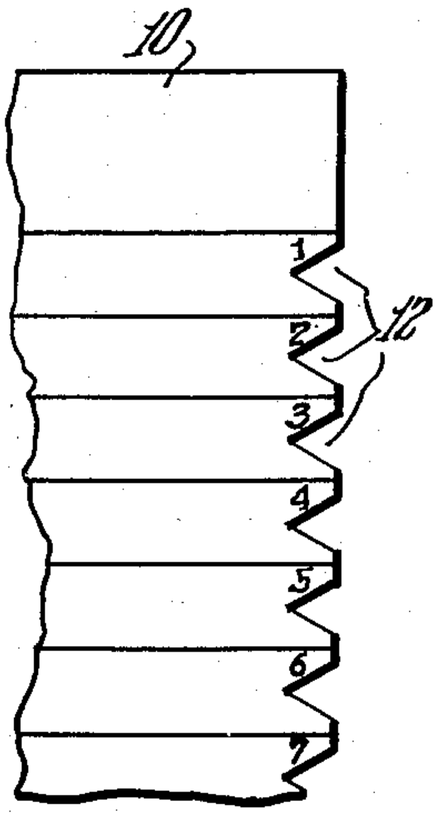


Fig. 2.

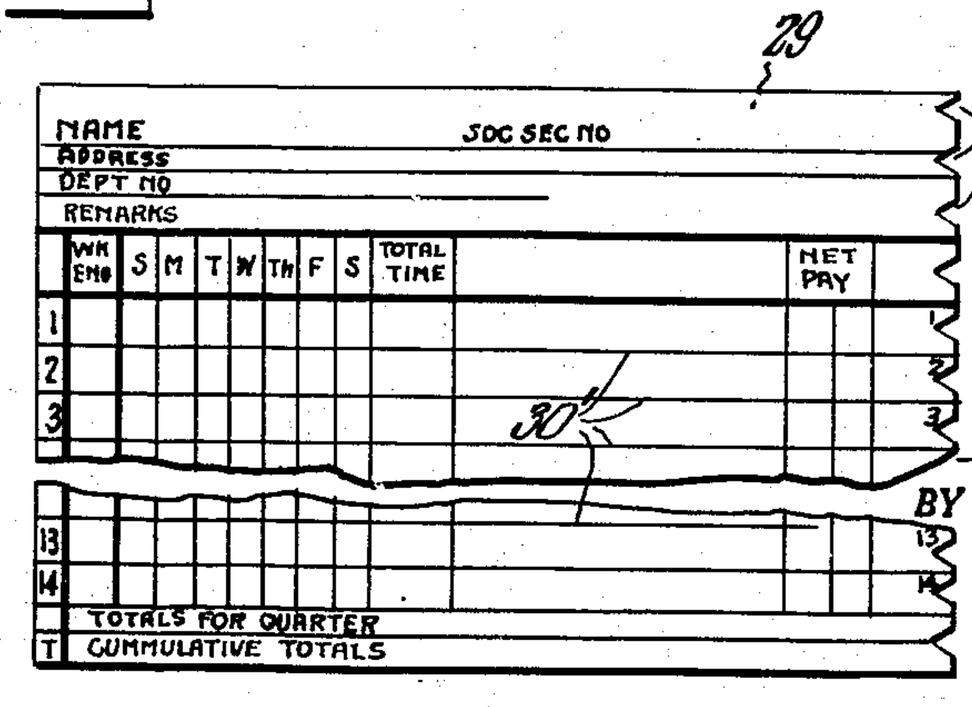


Fig. 4.

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MULTIPLE RECORDING OF INFORMATION

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Application August 6, 1952, Serial No. 302,920

1 Claim. (Cl. 282—29)

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My invention relates to new and useful improvements in recording apparatus for the multiple recording of information and is directed more particularly to recording apparatus wherein information is applied to a sheet or form and simultaneously transferred or applied to another sheet or form in a predetermined location thereon.

It is the principal object of my invention to provide a novel and improved construction of the type in which copies of entries made on any one of various separate bookkeeping forms may be made simultaneously on another separate bookkeeping forms in a desired alignment therewith.

It is another object of the invention to provide a support member having aligning means, and also if desired holding means whereby the various forms may be held in certain predetermined positions relative thereto and relative to each other all to the end that an entry made on the uppermost of the forms will be simultaneously recorded in certain predetermined positions on all of the other forms, duplicating means, which are not a part of this invention, being used for this purpose.

The novel features of the invention are adapted for broad application but for purposes of disclosure will be described in connection with payroll records.

My invention also consists in certain new and original features of arrangement and co-relation of parts hereinafter set forth and claimed in conjunction with the annexed drawings which illustrate a certain form of embodiment thereof, which form is deemed preferable and is a specific disclosure for the purpose of illustrating one embodiment of the invention by way of an example since the same has been found in practice to give satisfactory and reliable results. It is to be understood that the various parts of which the invention consists, can be variously changed within the scope of the appended claim without departing from the broad aspects and spirit of the invention and that the same is not to be limited to the precise arrangement and organization of the instrumentalities as herein shown and described.

To the above cited and other ends and with the foregoing and various other novel features and advantages and other objects of my invention as will become more readily apparent as the description proceeds, my invention consists in certain novel features of construction and in the combination and arrangement of parts as will be hereinafter more particularly defined in the claim hereunto annexed and more fully described

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and referred to in connection with the accompanying drawings wherein:

Fig. 1 is a plan view of recording apparatus embodying the novel features of the invention;

Fig. 2 is a plan view of an edge portion of a sheet formed according to the invention;

Fig. 3 is a sectional view on the line 3—3 of Fig. 1 with the sheets shown therein omitted; and

Fig. 4 is a broken plan view of one of the work sheets which may be used in connection with the device of my invention.

In the following description and claim, various details will be identified by specific names for convenience. These names, however, are intended to be as generic in their application as the art will permit.

Referring now to the drawing in detail, in which similar characters of reference indicate corresponding parts in the several figures, and referring more particularly to the preferred form of my invention selected for illustrative purposes, I have shown a support 2 which has a marginal edge portion 4 serving as a registration guide which is disposed above the plane of the upper sheet supporting face 6 of the support 2.

The inner edge of the marginal edge portion 4 is provided with inwardly extending longitudinally spaced keys 8 which are receivable in notches similarly spaced along the edges of sheets which are employed.

A sheet 10, shown in Fig. 2, is provided with notches 12 such as referred to.

Other edge portions 14 and 16 may be provided on the support 2 so that there may be sheet guiding edges 18 and 20 respectively.

The support 2 may be formed from various materials and in various ways. For purposes of disclosure, however, it will be understood to be formed from a relatively rigid lightweight metal with the raised marginal portions being turned over onto the upper face 6 in the manner as shown in Fig. 3.

It may be desirable in some cases that the inner portions 8' of the keys 8 be depressed downwardly slightly into depressions 22 provided in the upper face 6 of the support 2, as in Fig. 3. This is for purposes of preventing the edge of a sheet on the support from being inserted under the keys.

As stated, the apparatus is adapted for a multiplicity of record purposes, but for purposes of disclosure, it will be described briefly in connection with payroll records.

In Fig. 1, a recapitulation sheet 24 is shown on

the support 2 and has a plurality of transverse lines 26 spaced according to the spacing of the keys 8 and with notches such as shown in Fig. 2 along one of the longitudinal edges thereof, there being a notch for each line.

As shown, the sheet 24 is provided with vertical columns for the entry of the names of employees, of the days of the week, of total time, and of net pay. There may be other and various columns for such other entries as may be desired.

Another sheet or form member such as 28 as shown in Fig. 1 may be employed. In the present instance, member 28 is identified as an employee's earnings sheet but it could as easily take the form of an employee's pay statement, an employee's yearly earnings record, or the like. The important fact is that both members 24 and 28 will carry certain of the identical information, information being transposed from member 28 to member 24 by any of the conventional duplicating means.

Sheet member 28, as in the case of sheet 24 is provided with notches such as shown in Fig. 2.

Sheet 28 is superposed upon sheet 24 with a sheet of carbon paper being disposed therebetween or if desired, the back of member 28 may carry transfer material.

Another sheet 29 is shown in Fig. 4 which, as in the case of sheets 10, 24 and 28, is provided with notches 12' similar to those shown in Fig. 2.

Member 29 is illustrated, it being desired to show one practical application of the device of the invention. In such illustration member 24 will be understood to comprise a recapitulation sheet containing the names of a group of employees together with pertinent data relative to their earnings during a particular week. Member 29 in the illustration will be understood to comprise a record of an individual showing the earnings of such individual over a period of weeks.

It will be appreciated that member 29 is smaller in dimension than member 24 and accordingly does not completely overlie the same.

Sheet 29 has a plurality of transverse lines 30' spaced according to the spacing of the keys 8 and with the notches 12' along one of the longitudinal edges thereof, as shown, there being a notch for each line.

As shown, member 29 is provided with vertical columns for the entry of the days of the week, of total time, and of net pay. There may be other and various columns for such other entries as may be desired.

Information may be applied to sheet 29 concerning an individual's earnings during a particular week. Assume, for example, that earnings earned during the week represented by line 13 on member 29 are being entered thereon. Member 29 would be placed over member 24 so that line 13 of member 29 will be in alignment with, let us say, line 7 of member 24, said line 7 carrying the name of the particular employee concerned.

Information is applied to member 29 and is transferred simultaneously to member 24.

Another precise illustration of the operation of the device is shown in Fig. 1 where member 28 overlies member 24.

Information is applied to sheet 28 and transferred simultaneously to the sheet 24 and for this purpose the sheet 28 is located on the sheet 24 so that the information will appear on a predetermined line of said sheet 24.

Numerals as shown may be applied along a longitudinal edge or edges of sheets to aid in locating proper lines to be recorded on the sheets.

By superposing successive sheets such as 28 on the sheet 24 and applying information thereon which is transferred to sheet 24 the information appears on the said sheet 24. That is, pay roll information relating to a plurality of individual employees appears on the sheet 24 without the usual necessary copying of information from individual sheets on to a master sheet or vice versa.

That is to say, exact registration is accomplished when the sheets are placed against member 4 after the correct recording lines upon which the entries are to be made have been predetermined.

The keys and notches may take various forms and patterns and may be spaced apart various distances in accordance with the line spacing of the sheets to be used.

As an important feature, an elongated hold down 30 is provided. Spring members 32 are secured at opposite ends to the hold down and raised portion 4 of the support which are provided with loops 34 between their opposite ends. These are arranged to urge the hold down downwardly whereby to press on sheets on the support and prevent shifting thereof.

A manually engageable member 36 is secured to the hold down. When pressed downwardly, the hold down 30 is elevated against the action of the springs to release sheets on the support to allow placement against or removal from member 4.

Thus it will be apparent that information applied to an individual sheet is simultaneously applied to a recapitulation sheet thereby to avoid the normal copying from one sheet to another. The apparatus is arranged so that the information is applied to the undersheet in a predetermined manner and, during operation, the sheets are held in the desired predetermined relationship.

The invention may be embodied in other specific forms without departing from the essential characteristics thereof. Hence, the present embodiments are therefore to be considered in all respects merely as being illustrative and not as being restrictive, the scope of the invention being indicated by the appended claim rather than by the foregoing description, and all modifications and variations as fall within the meaning and purview and range of equivalency of the appended claim are therefore intended to be embraced therein.

What it is desired to claim and secure by Letters Patent of the United States is:

A structure for supporting superposed sheets having longitudinally spaced lines and notches aligned with said lines in edges thereof and for releasably holding said sheets with the notches thereof in register comprising, a rigid support having an upper flat sheet supporting face for superposed sheets and an elongated relatively narrow strip portion along an edge thereof provided with an inner longitudinal edge adjacent said flat face and extending upwardly from said face, said inner edge of the strip portion provided with keys extending towards said supporting face and spaced longitudinally thereof in accordance with the spacing of the notches of sheets to be placed on said face and being receivable in said notches, an elongated rigid hold-down member having a manually engageable por-

tion, and resilient hinge means connected to said hold-down member and to said strip portion arranged to locate said hold-down closely adjacent said keys and over the notched edges of sheets on said face and adapted to urge said hold-down downwardly into sheet holding position and to yield for removal of sheets therebelow, said support provided in the supporting face thereof with depressions disposed below said keys and said keys being displaced downwardly whereby lower portions thereof depend into said depressions.

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