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COMPOSITE TRAVELER RECORD FASTENER

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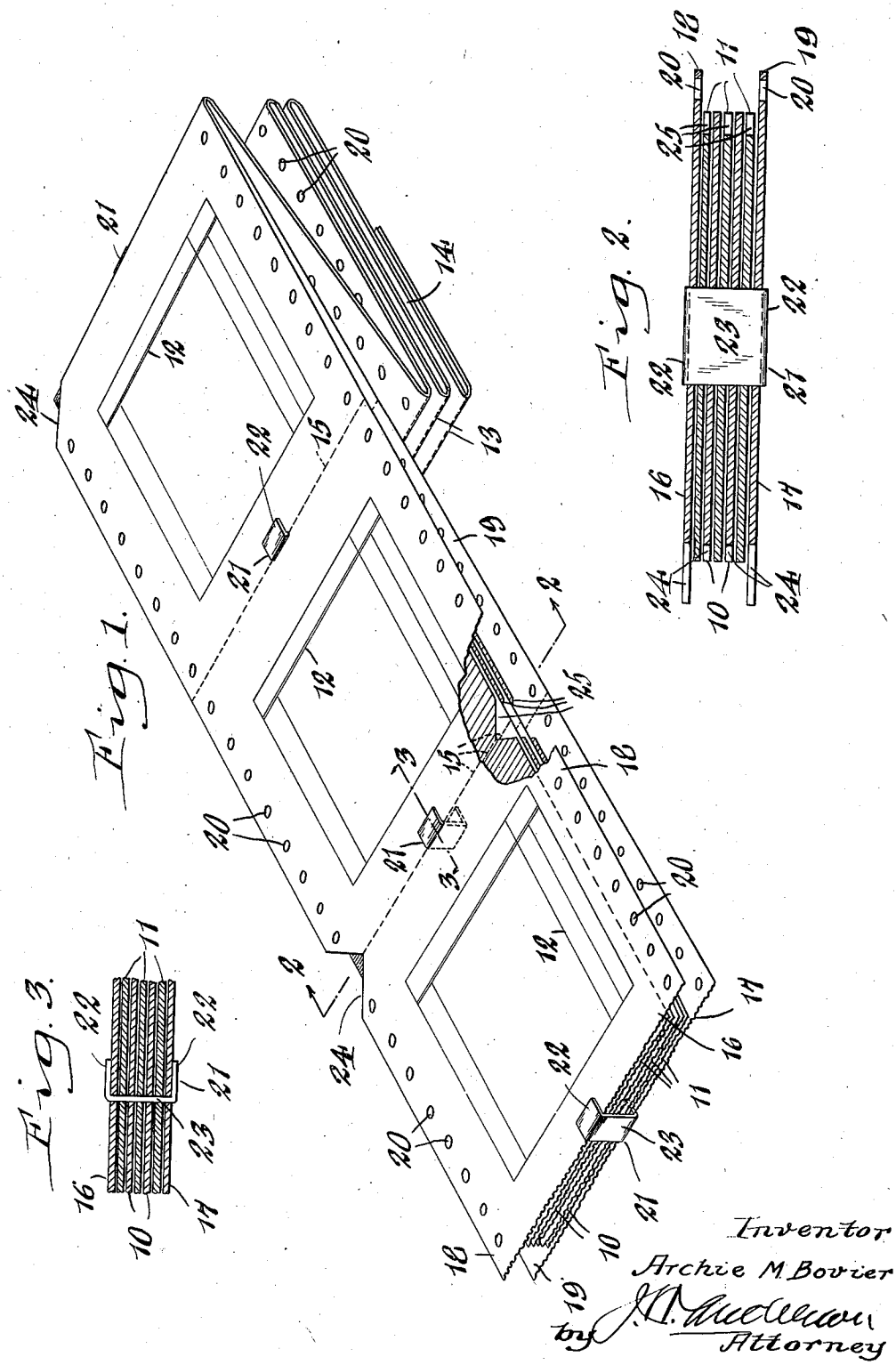


Fig. 1.

Fig. 2.

Fig. 3.

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COMPOSITE TRAVELER RECORD FASTENER

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7 Claims. (Cl. 282—12)

This invention relates to improvements in record devices for manifold inscription and, with reference to some of the more particular features thereof, it relates to improvements in composite traveler records adapted for use in various forms of writing machines. While the improved record may be utilized in various types of writing machines, especially where a large number of manifold copies are required, it is particularly well adapted for use in automatically or mechanically controlled writing machines such, for example, as printing telegraphs either in the transmitting or the receiving instruments.

It is a general object of the invention to provide a composite traveler record for use in machines of the class mentioned having improved construction and arrangement whereby the several traveler strips of the record are effectively maintained in correct alignment with each other even though a large number of strips are used and where it is necessary to operate the record continuously over considerable periods of time without readjustment by an operator. For example, the receiving instrument of a printing telegraph system is often necessarily operated over long intervals of time without any manual readjustment of the records to keep them in alignment. It is therefore very important in such a system that the different record strips be maintained in correct alignment and registry with each other in order that the manifold copies may appear in their proper positions upon the respective blank forms or spaces provided for them. This improved composite traveler record is well adapted for this class of work as it is provided with improved means for maintaining the record strips always in correct alignment with each other and it can accomplish this result even though a large number of manifold copies are to be made.

A further object of the invention is to provide an improved composite traveler record wherein feeding supports or supporting belts are provided for work webs or record strips to support the latter and to maintain them at all times in correct alignment with each other. The supporting belts themselves may be made up to form record strips and to this end may be provided with blank forms for receiving inscriptions or they may be unprovided with such blank forms if desired. In any case the supporting or carrier belts may be made of sheet material such as paper which is sufficiently tough and strong to provide the necessary support for the record and transfer strips.

Another object of the invention is to provide a composite record of the class mentioned having an improved arrangement of attachments for securing the several traveler strips together, thus avoiding relative displacement or disalignment thereof and maintaining them in correct superposed register especially when used in the type of automatic writing machines above mentioned.

An important object of the invention is to provide for composite traveler records, an improved holding means for holding all of the traveler strips of the record together in correctly assembled relation and to continue to hold the sheets or leaves of a set of leaves severed from the complete traveler record along the weakened transfer severance lines thereof, and at the same time to provide for selective separation of one or more of the leaves of the severed set without mutilation or damage to any of the leaves.

A further important object of the invention is to provide an improved holding means for securing the strips of the composite traveler record together arranged in a novel manner so that the holding effect will be released by severance along a set of weakened severance lines of the record, but each holding member or device will cling to the strips or leaves after severance so as to avoid falling into the record machine or any other undesirable places.

Other objects of the invention will be in part pointed out in the following detailed description of an illustrative but preferred embodiment of the invention and will be in part obvious in connection therewith.

The invention accordingly comprises the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the claims.

For a more complete understanding of the nature and objects of the invention, reference is had to the following detailed disclosure of the illustrative embodiment and to the accompanying drawing; in which—

Fig. 1 is a fragmentary perspective view of a composite traveler record embodying the invention, the showing being partially diagrammatic and the strips or webs separated from each other in order to facilitate the disclosure;

Fig. 2 is an enlarged vertical transverse section taken approximately on line 2—2 of Fig. 1, the showing being partially diagrammatic and

the thickness of the strips being magnified to improve the disclosure; and

Fig. 3 is a fragmentary longitudinal vertical section taken approximately on the line 3—3 of Fig. 1, the showing being partially diagrammatic as in Fig. 2.

Referring to the drawing for a detailed disclosure, it will be observed that there are a plurality of relatively superposed record strips 10 with which are interleaved in manifolding relation carbon or transfer strips 11. Although but two record strips 10 and three carbon strips are shown for convenience of illustration, it will be understood that any desired number may be utilized. In certain classes of work where the inscriptions are made by automatic machines, eight or more copies are required and the necessary strips may be arranged in superposed manifolding relation for this purpose. These record and transfer strips, as shown, are preferably of the long continuous traveler type and the record strips may be provided with blank forms such as shown at 12 arranged in longitudinal series therealong and appropriately designed for the reception of inscriptions. These traveler strips may be transversely folded at longitudinally spaced intervals as indicated at 13 to form the zigzag folded supply pack 14 or they may be arranged in a supply roll or otherwise if desired.

At longitudinally spaced intervals each of the record and transfer strips 10 and 11 may be provided with transverse weakened lines 15 which may be formed in any preferred manner such as by perforating, creasing or scoring or the like.

For the purpose of supporting and for feeding the record and transfer strips and for maintaining them in correct registry and alignment with each other, supporting or carrier belts 16 and 17 are provided. Both of these carrier belts are preferably longitudinally coextensive with the record and transfer strips and are arranged in superposed supporting relation therewith and each is provided with marginal feed bands 18 and 19 having pin-wheel feed apertures 20. Also, both the upper and lower carrier belts are preferably provided with transverse weakened lines 15 spaced to correspond with lines 15 of the record and transfer strips. The upper carrier belt 16 is also shown as being provided with a longitudinal series of blank inscription forms 12 spaced the same as the forms of the record strips 10 and arranged in superposed manifolding relation therewith. The lower carrier belt 17 may also be provided with similar blank forms. However, the blank forms may be omitted from the carrier belts. Also it is often advantageous to omit the carrier belts and to make up the complete composite record with the requisite number of traveler record strips with interleaved transfer strips.

Furthermore, the record and transfer strips are provided with selective gripping formations whereby the carbon sheets and also the record sheets, when a set thereof has been severed from the record, may be selectively gripped or engaged at remote points thereof and separated or stripped from each other. The form of device shown for this purpose includes the notches 24 in the record strips including the carrier belts arranged in a longitudinal series along one edge of the carrier, and similar notches 25 in the transfer strips arranged in longitudinal series along the opposite lateral edge of the record. The notches 24 and 25 preferably extend across the adjacent set of severance lines 15, as shown. Thus, it will be seen that severance of one of the sets of form leaves along the severance lines 15 will provide selective grip formations for the record strips at one corner thereof and similar grip formations at another corner for the transfer sheets. These selective grip formations provided by the notches 24 and 25 are in embryo or incomplete state until the set of form leaves is severed but are completed by the severing operation. It will be noted that the corners of the record sheets are thus exposed through the notches of the transfer sheets so that they may be selectively gripped without gripping the transfer sheets. Similarly, the corners of the transfer sheets may be selectively gripped at an opposite corner. The transfer sheets may thus be readily separated in a group from the record sheets. It will be obvious that the selective grip formations may be variously constructed and arranged for effecting the stripping operation, the construction shown being illustrative merely.

In order to maintain the traveler strips, including the carrier belts as well as the record and transfer strips, in correctly aligned manifolding relation with each other, it is desirable to secure the strips together. This is accomplished in the embodiment of the invention shown in the drawing by attaching devices 21 spaced at longitudinal intervals throughout the length of the record. Each of the attaching devices or clips 21 is of light sheet material such as light sheet metal, paper, or cardboard, and is provided with upper and lower flanges or legs 22, preferably as shown, extending rearwardly of the record and engaging the upper and lower surfaces thereof. Although these attaching clips may be otherwise arranged it is preferable, as shown, that the flanges or legs extend rearwardly from the attaching web or yoke 23 of the clips, so that the clips will not be likely to catch on parts of the machine or other parts of the record; obstruction to free movement being avoided in this manner. The clip flanges 22, if desired, can be secured to the upper and lower faces of the record as by light pasting, but such attachment may be omitted especially when the clips are made of metal or similar material, the flanges remaining in close contacting relation with the upper and lower record surfaces by virtue of the tendency of the material to stay bent or to remain in the position to which it is adjusted. When the attaching clips are made of metal as specified or of similar resilient material, the attaching flanges 22 will have a set or bias so as to yieldingly and resiliently engage with the upper and lower surfaces of the composite record.

As shown in the preferred embodiment of the invention, each of the attaching clips is positioned directly upon one of the sets of transverse weakened severance lines, the lines of the sets being in substantial registry with each other as shown. Holes or openings are formed in the strips by the passage of the fastening devices 21 and the weakened severance lines extend directly to said openings. This can be seen in the drawing because in that embodiment, the fastening devices are located directly upon the severance lines. It will thus be seen that the fasteners or clips 21 will be released or exposed at one side thereof when the strips are severed along the lines, even though the clips are not positioned directly upon said lines. Also each fastening device or clip is spaced or offset inwardly from each of the longitudinal edges of the composite record. The attaching flanges of each clip therefore will

embrace the strip material at one side of the lines of severance, lying in contact with the marginal portions of the sheets or leaves of the respective leaf sets. In this manner there will be at least one attaching device for each set or pile of leaves, and said leaves of any severed set will continue to be held together by the attaching device after the set has been severed from the complete traveler record. It is clear also that the attaching devices function to retain all of the strips or webs of the traveler record or pile in correctly assembled relation at all times.

After the leading set of leaves has been inscribed or written upon by means of a writing machine or in any other way, said set may then be severed from the complete record along the set of weakened severance lines **15** and the corresponding attaching clip will thus be partially released but will still continue to cling to the marginal edge portions of the strips or webs by virtue of the construction and arrangement of the attaching flanges **22** embracing the marginal strip portions. Also the severed set of leaves will continue to be held together by one of the attaching clips whereupon, if desired, supplemental data may be entered upon the leaves of the severed set. Also it is clear that any one or more of the leaves of the severed set may be separately removed from the set by pulling it from its gripped position between the flanges of the attaching clip. Also the carbon or transfer leaves may be gripped as one through the selective grip notches **24**, while the record leaves are selectively gripped as one through the notches **25**, whereupon all the transfer leaves may be stripped from the record leaves and said record leaves will still continue to be held together by the attaching clip. The record leaves may then be separated from each other by removing the clip or by removing the leaves one by one as desired. In any case the leaves are removed from attached position in the assembly without any mutilation or damage thereto.

Due to the fact that the connecting web **23** of each clip pierces or extends through the composite record assembly directly upon the corresponding set of severance lines **15**, it will be noted that the clip will be substantially released from positive connection with the assembly by severance along said severance lines. Notwithstanding this release, the clip will still continue to cling to the sheets and to hold them together by virtue of the yielding pressure exerted upon the marginal parts of the sheets by the inwardly bent or deflected flanges **22** which yieldingly and frictionally engage the upper and lower record surfaces. It will also be observed that the transverse extent of the clip extends along and substantially on the severance lines so that the clip is effectively freed at the line of severance when severance occurs.

The invention herein set forth and claimed is disclosed in applicant's prior application Serial No. 568,702 filed October 14, 1931 for Composite traveler record. Therefore, the present application is a division of the earlier application.

Since certain changes may be made in the above construction and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A manifolding pile comprising a plurality of superposed continuous record strips and interleaved transfer strips having transverse lines of severance, located at sheet-length intervals along the pile along which the strips may be severed, into sets of superposed record and transfer sheets; and means located on the lines of severance for holding the strips in registration in the pile until the pile is severed, said means being biased to yieldingly engage and hold the sheets of a severed set together against casual separation but permitting intentional removal without mutilating or tearing any portion of any sheet.

2. A manifolding pile comprising a plurality of superposed continuous record strips and interleaved transfer strips having transverse lines of severance, located at sheet-length intervals along the pile along which the strips may be severed, into sets of superposed record and transfer sheets; and means located on the lines of severance for holding the strips in registration in the pile until the pile is severed and for temporarily and yieldingly holding the sheets of a severed set together against casual separation, said means frictionally engaging the margins of the sheets and permitting removal of one or more sheets from a severed set without mutilation of any thereof.

3. A manifolding pile comprising a plurality of superposed continuous record strips and interleaved transfer strips having registering transversely disposed lines of weakness along which the pile may be severed to form sets of superposed record and transfer sheets; and sheet metal clips passing through the pile of sheets on the line of severance and having their legs bent toward each other and the intervening strip material, for holding the strips in registration and for holding the sheets of a severed set together against casual separation.

4. A composite traveler record assembly including, in combination, a plurality of traveler strips having registering transversely disposed weakened severance lines along which the record may be severed to form sets of relatively superposed sheets, and attaching clips located respectively on the severance lines for holding the strips in registration in the record until the record is severed along said lines, each of said attaching clips embracing the material of the strips at one side of the corresponding severance lines and being yielding and having a permanent set and biased to exert yielding pressure against the strips and to cling thereto after severance thereof on said severance lines.

5. A composite traveler record assembly including, in combination, a plurality of traveler record strips and interleaved transfer strips having registering transversely disposed weakened severance lines along which the record may be severed to form sets of relatively superposed record and transfer sheets, said record and transfer sheets of each set having relatively off-set marginal portions at spaced parts thereof providing selective grip formations whereby the record sheets may be selectively gripped at one point and the transfer sheets selectively gripped at another point, and a yielding attaching clip for each set of sheets, each clip having a permanent set and exerting yielding pressure on the sheets so as to hold together the sheets of each severed set without penetrating the sheets, thus permiting the transfer sheets to be stripped from the record sheets by use of said selective grip formations, without multilation of any of the sheets or removal of the clip.

6. A composite traveler record assembly including, in combination, a plurality of traveler record and transfer strips interleaved with each other and having registering longitudinally spaced transverse weakened severance lines along which the record may be severed to form sets of relatively superposed record and transfer sheets, and yielding metallic attaching clips passing through the strips, said severance lines extending to the strip openings through which the clips pass so as to expose the clips upon severance along said lines, each of said attaching clips embracing the strip material at one side of the severance lines and having legs bent together to yieldingly and frictionally engage the strips so as to cling thereto and to bind the sheets together after severance thereof on said severance lines.

7. A composite record assembly including, in combination, a plurality of strips having registering, transversely disposed, weakened severance lines along which the assembly may be severed to form sets of relatively superposed sheets, and attaching clips of sheet material passing through the assembly flatwise on the respective severance lines for holding the strips together in the assembly, each of said attaching clips embracing the strip material at one side of the corresponding severance lines and being yielding and having a permanent set and biased to exert yielding pressure against the strips and to cling thereto after severance thereof along said severance lines.

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