# Nov. 26, 1935. A. IELFIELD

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MANIFOLDING DEVICE FOR TYPEWRITERS

Filed Sept. 25, 1933 2 Sheets-Sheet 1

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## A. IELFIELD

MANIFOLDING DEVICE FOR TYPEWRITERS

Filed Sept. 25, 1933

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2 Sheets-Sheet 2

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40 22 ZI0 0 40 0 35 32 43 -53 35 42 36 36 32-23 17 5..... 18 38 Fig. F. 34-34 43-39 44\_ 40 1 33 35 45 40 31 31 ∕रम 上 ろ



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UNITED STATES PATENT OFFICE

2,022,374

MANIFOLDING DEVICE FOR TYPEWRITERS

August Ielfield, Silver Creek, N. Y. Application September 25, 1933, Serial No. 690,788 5 Claims. (Cl. 197-126)

It is the object of this invention to provide a manifolding device for typewriting machines which permits of using one or more carbons repeatedly for manifolding purposes between suc-5 cessive sections of continuous record sheets without removing the same from the record sheets after being once assembled therewith, and to so construct said device that the same can be readily applied to and removed from a typewriting machine, also easily and conveniently operated and also is of simple construction, low in cost and not liable to get out of order.

In the accompanying drawings:

Figure 1 is a perspective view of the upper part of a standard Royal typewriting machine equipped with my improved manifolding device. Figure 2 is a vertical longitudinal section of the same, taken on line 2-2 Fig. 3.

Figure 3 is a fragmentary rear elevation of 20 the same.

- Figure 4 is a fragmentary horizontal section taken on line 4-4 Fig. 2.
- Figure 5 is a vertical longitudinal section taken

of the platen adjacent to the underside of the same for holding the record sheets or leaves 15 and the manifolding carbon sheets 16 which are intercalated therewith against the platen, and front and rear supporting bars 17, 18 forming 5 part of the carriage.

Means are provided for retracting the guide rollers 13, 14 from the platen 12 so as to permit of the ready introduction of the sheets or leaves of paper which are adapted to receive the rec- 10 ord and carbon manifold sheets which are interleaved between the same, and then releasing these guide rollers 13, 14 in order to permit the same to press the intercalated record and carbon sheets against the platen so that upon rotating 15 the latter the several record and carbon sheets will be moved forwardly or backwardly and present the desired surface of these sheets to the printing line, which in this particular typewriter is located on the front side of the platen. 20 Inasmuch as the means whereby the carriage is moved step by step across the machine, the platen is turned either forwardly or backwardly and the guide rollers 13, 14 are moved either toward or from the lower part of the platen, are 25 all of well-known and standard construction, a detailed description of the same is unnecessary. The manifolding device containing my improvements is constructed as follows: In its general organization this manifolding 30 device comprises a frame which in the preferred construction is detachably mounted on the upper part of the carriage and above the platen, and clamping means mounted on this frame and adapted to either grip the opposite side edges of 35 the carbon sheets and permit the record sheets to be moved lengthwise of the carbons independently of the latter, or to release the carbons and permit the same to move lengthwise with the record sheets. For the purpose of utilizing the 40 present manifolding device the carbon manifolding sheets are wider than the record sheets and, when assembling the same, these carbon sheets are intercalated with the record sheets so that the opposite longitudinal side edge portions or 45 edges of the carbon sheets project laterally beyond the longitudinal side edge portions or edges

on line 5-5 Fig. 3, but omitting some of the parts for clearness of illustration. 23

Figure 6 is a front view, on a reduced scale, showing the manner in which the record sheets or leaves are arranged relative to the manifolding carbons during the operation of producing the typewritten record.

Figure 7 is a similar view but showing one section of the sheets or leaves of the continuous webs partly moved forwardly relative to the interposed manifold carbon sheets and the next following 35 section or set of record sheets or leaves of the continuous record web moved forwardly so as to partly intercalate with the carbon sheets.

Figure 8 is a front view of a carbon manifolding sheet having a form slightly different from that shown in Figs. 6 and 7.

Figure 9 is a fragmentary side view showing the preferred manner in which the sections of multiple record sheets are folded and stacked in a pile preparatory to being fed to the type-45 writing machine for producing written records on several sets or sections of the sheets or leaves

thereof.

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In the following description similar characters of reference indicate like parts in the several 50 figures of the drawings:

The typewriting machine which is shown in the drawings is typical of one suitable for use in connection with my invention, and as there shown the same comprises a main frame 10, a carriage II which is movable horizontally and 55 transversely on the main frame, a cylindrical platen 12 which is mounted horizontally and transversely on the front part of the carriage, front and rear lower guide rollers 13 and 14 arranged adjacent to the front and rear parts of the record sheets, as shown in Figs. 1, 4, 6

and 7. Although the drawings and the following de- 50 scription show and refer more particularly to the use of a plurality of carbon sheets which are alternated with a plurality of record sheets in the assembly of a section or set of such sheets. it is to be understood that this invention is equal- 55 ly useful when employing but a single carbon sheet between two record sheets, the foremost of which receives the main or ribbon impression of the type while the second receives the record through the medium of the carbon. It is there- 60

fore to be understood that this manifolding device is equally useful when employing a single carbon sheet or a plurality of carbon sheets, and in the following description and claims the term "carbon sheets" is to be understood as including either a single sheet of manifolding carbon or a plurality of such sheets.

This manifolding device is more particularly intended for use in continuous billing in which the record is simultaneously made on a plurality 10 of sheets or leaves constituting a set, and each set forms a section of a plurality of webs or continuous sheets or strips which have been previously folded in zig-zag fashion and stacked in a pile in rear of the typewriting machine, as  $15^{\circ}$ 

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Adjacent to opposite ends of the manifolding frame the same is provided with two pairs of gripping devices whereby the carbon sheets may be gripped and held against longitudinal movement but permit the record sheets to be moved 5 lengthwise independently of the carbon sheets, and these gripping devices may also release the carbon sheets so as to permit the same to move lengthwise through the machine with the record sheets. 10

Each of these gripping devices comprises a rear gripping jaw 33 which is inclined rearwardly and arranged in rear of the corresponding edge portions of the record sheets and the manifolding sheets at one of the corresponding longitudinal 15 edges thereof, and a front jaw 34 which is arranged in front of the companion rear jaw and in front of the corresponding longitudinal edge portion of the manifolding sheets, but beyond the adjacent longitudinal edges of the record sheets. 20 It follows from this construction that when the two gripping jaws of each pair are pressed together, only those edge portions of the carbon sheets which project beyond the record sheets will be gripped and thereby hold the carbon 25 sheets against motion but permit the record sheets to be moved lengthwise independently of the carbon sheets, while upon releasing the jaws from the carbon sheets the latter are free to move lengthwise with the record sheets. 30 In the preferred construction each of the rear gripping jaws is pivotally mounted to swing in a vertical plane lengthwise of the machine, for which purpose this jaw is provided at its vertical opposite edges with rearwardly projecting flanges 35 35 which are pivoted at their upper ends on the upper cross bar 34 of the manifold frame. In order to permit each of these rear gripping jaws to swing the requisite extent without interference with the lower manifold frame bar 23 the flanges 40 35 are provided in their lower parts with rearwardly opening notches 36 which are opposite the bar 23 and therefore clear the latter upon swinging the respective rear gripping jaw 33 forwardly and backwardly, as best shown in Fig. 45 2. Each of the front gripping jaws 34 is stationary relative to the companion rear gripping jaw but is pivotally mounted so that the same can swivel or turn in a vertical plane lengthwise of the machine a sufficient extent to permit 50 this front jaw to freely adapt itself to the front side or surface of the side edge portions of the respective carbon sheets. For this purpose each of the front gripping jaws is pivotally connected by means of a horizontal transverse pin 37 with a 55 rearwardly projecting finger 38 which is formed on the front end of an arm **39** which is secured at its rear end to the adjacent end plate of the manifold frame. The movement of the rear jaw toward and 60 from the companion front jaw of each pair for either gripping or releasing the grip on the carbon sheets may be effected in various ways but the means which are shown for this purpose in the drawings are so organized that a yielding 65 pressure is exerted against each of the rear gripping jaws and thus enable 'each pair of gripping jaws to automatically adapt themselves to variations in the thickness of the carbon sheets and also to any variation in the number of carbon 70 sheets which may be employed.

shown in Fig. 9, preparatory to being fed successively through the typewriting machine for producing records of various kinds on the several sets of record sheets. As the record on each set of typewritten sheets is completed the respective 20set of record sheets is torn or severed from the sheets in the next following set or section of the plurality of webs preparatory to producing another record on the last-mentioned set of record sheets. The line of division between one set or 25 section of record sheets and the next following set or section of such sheets is preferably located in the folds 19 between the adjacent sections of the several webs and along these folds each of the webs is provided with a transverse line of 30perforations 20, as shown in Figs. 6 and 7, so as facilitate tearing one set or section of sheets of the web from another set or section thereof. If desired, however, the severing of one set or 35 section of the sheets in the continuous web from the sheets of another section thereof may be effected by any suitable form of cutting device which may be operated either manually or mechanically.

- In its preferred form the frame of this mani-**4**0 folding device comprises two vertical end plates or heads 21, 22 arranged lengthwise over the platen and the carriage bars 17, 18 adjacent to opposite ends thereof, a lower horizontal trans-
- verse bar or rod 23 arranged above the platen **4**5 and connecting the lower parts of said end plates, and an upper horizontal transverse bar or rod 24 arranged above the lower bar 23 and connecting the upper front parts of the end plates.
- On its underside each of the end plates is pro-50 vided about midway of its length with a downwardly facing V-shaped seat 25 which engages with the correspondingly shaped seat on the upper side of the carriage bar 17, as shown in Figs. 2 and 5. At its rear end each of the end plates 55 21, 22 is provided with a notch 26 forming in effect a fork which extends rearwardly and receives the rear cross bar 18 of the carriage, as shown in Figs. 2, 3 and 5. The manifolding frame may
- be held in engagement with the carriage by any 60 suitable means, but this is preferably accomplished by means of catches 27 movably mounted on the outer side of each of the manifold end plates about midway of the length thereof, and each provided at its lower end with a hook 28 en-65 gaging with the underside of the adjacent carriage bar 17 and provided between its ends with a longitudinal slot 29 which receives a clamping screw 30 on the adacent part of the respective end plate, a finger piece 31 arranged at the upper 70 end of each catch 27 for convenience in manipulating the same, and a screw nut 32 working on the respective clamping screw 30 and engaging with the outer side of the catch 27, as shown in 75 Figs. 1, 3, 4 and 5. · . . .

As best shown in Figs. 2, 3 and 4 a cushion spring 40 preferably of leaf form is arranged in rear of each of the rear gripping jaws and secured thereto at its upper end while its lower end 75

is free, and in rear of the free part of each of these springs is arranged a rotary cam or eccentric 41, which latter upon being rotated so as to engage its salient part with the cushion spring 40 will cause the respective rear grip-5 ping jaw to be moved toward the companion front gripping jaw for holding the respective ends of the carbon sheets against movement, while upon turning this cam or eccentric so as to present its receding part to the cushion spring the 10pressure on the respective rear gripping jaw will be released and thereby permit this jaw to drop by gravity away from the rear side of the carbon sheets and permit the latter to be moved in

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so determined that the same do not exceed the length of the sheets or leaves in each set or section of the webs, and these are so assembled that the carbon sheets are within the boundaries of the respective record sheets, as shown in Fig. 6. - 5

After the desired record has been typewritten on the record sheets by the manipulation of the type bars and the means for shifting the carriage transversely and also feeding the paper lengthwise as the writing progresses, the operator ad-10 vances both the carbon and record sheets lengthwise a sufficient extent to bring the lower or rear ends of the carbon sheets underneath the front jaws of the two pairs, as shown in Fig. 6. The rear jaws of the two pairs are now pressed for-15 wardly by rotating the cams 41 in the proper direction through the medium of the hand lever 43, whereby the marginal parts of the carbon sheets are gripped adjacent to their lower or rear ends between the two pairs of gripping jaws, as 20 shown in Figs. 2 and 4, and these carbon sheets. are held against longitudinal movement. The operator now retracts the lower guide rollers 13 and 14 so as to release the webs of record sheets and permit the operator, by grasping the upper 25 ends of the foremost set of leaves or sheets of these webs, to pull the same forwardly independently of the carbon sheets a sufficient extent to bring the line of division between the foremost set of sheets and the next following set of sheets 30 above the upper edge of the set of carbon manifolding sheets. When this has been done the operator can separate the set of completed record sheets having the desired writing thereon by severing this foremost set of record sheets from 35 the next following set of record sheets, which in the present instance is best accomplished by tearing these two sets of sheets apart along the lines of perforations located at the creases or folds

15 the machine.

The eccentrics or cams associated with the two pairs of gripping jaws on opposite sides of the manifold frame are turned in unison into and out of their operative position by means of a horizontal transverse shaft 42 which is journaled 20at its opposite ends in the end plates of the manifold frame, and is provided at one end with a hand lever or arm 43 for operating the shaft.

The throw of the cams 41 into and out of their 25 operative position is preferably limited by means of front and rear stops 44, 45 arranged on one of the end plates of the manifold frame adjacent to the shifting lever or arm 43 so that when the cams 41 are moved rearwardly into their inoper-30 ative position the shifting lever 43 will engage the rear stop 45 and when the cams move their salient parts against the cushioning spring 40 said hand lever 43 engages with the front stop 44 and limits the movement of the cams in this 35 direction.

The arrest in the operative movement of the cams preferably occurs when the salient faces of the same are on a dead center or slightly beyond such center so that the pressure of the 40 cushioning springs 40 will operate to hold the shifting cams in their operative position without requiring any other mechanism for this purpose and still permit these cams to be easily released from the cushioning springs and moved into their 45 rearward inoperative position when required. In the use of this manifolding device one or more carbon sheets are assembled with the two or more leaves or sheets in the first section or set of the continuous webs, so that the opposite ends 50 of the respective carbon sheet or sheets project laterally with their longitudinal edges beyond the corresponding longitudinal edges of the record sheets. The front ends of the foremost set of assembled record and carbon sheets are then 55 passed downwardly between the rear side of the platen and the rear guide roller 14, thence upwardly between the underside of the platen and the front lower guide roll 13 and then the advancing edges of these record and carbon sheets co are moved at their opposite longitudinal edge portions over the rear jaws of the two pairs in such position that the record sheets clear the front gripping jaws but the longitudinal marginal parts of the carbon sheets are brought un-65 derneath the front jaws of the two pairs of gripping devices, as shown in Fig. 1. The record sheets and carbon sheets are now in condition to permit of producing a multiple record consisting of a ribbon impression or writ-70 ing on the foremost record sheet and carbon impressions of the type on the remaining inner sheet or sheets through the medium of the intercalated carbon sheets in a well-known man-

between the rear ends of the sheets of the fore- 40 most set and the front ends of the next following set of record sheets.

During this operation the set of sheets of the webs which now becomes the foremost set of the webs has its lowermost part arranged adjacent 45 to the printing line of the platen, and it is therefore necessary to back up the webs in order to bring the top of the sheets of the foremost set of the web to the printing line for the purpose of starting the writing of another record. Be- 50 fore, however, backing up the sheets of the record webs the cams 41 are turned so as to release the grip of the two pairs of jaws from opposite ends of the carbon manifolding sheets so that when the record sheets are moved backwardly 55 for bringing the top of the foremost set of sheets to the printing line the carbon sheets will be also moved backwardly with these record sheets and in the proper position to produce multiple copies of the record as the writing of the same progresses. 60

This operation of gripping the lower end of the set of carbon sheets at the completion of each writing operation on a set of record sheets, then drawing the webs forwardly so that the foremost set of sheets of the web are clear of the carbon 65 sheets and bringing the next following set of sheets into an intercalated position relative to the carbons, then tearing off the foremost set of finished record sheets from the next following set which is intercalated with the carbon sheets, 70 and then releasing the carbons and backing the same up with the associated record sheets for beginning a new typewriting operation, is repeated in like manner for each manifolding operation. From this it will be seen that the carbon sheets 75

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The length of the carbon sheets is preferably

need only be inserted manually once between the foremost set of sheets or sections of the continuous webs, and that thereafter the same carbon sheets may be used repeatedly in association with the sheets or leaves of successive sets or sections of the webs without necessitating assembling and disassembling the carbon sheets and succeeding record sheets, as has been the usual custom heretofore, thereby materially
10 expediting the production of multiple records of this character and reducing the time required for this purpose as well as effecting a substantial saving in cost for doing the same.

It has been found in actual practice that 15 when drawing a plurality of record sheets for-

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sheets and the lower edges of the carbon sheets will therefore begin at the lowermost part of the oblique lower edge of the carbon sheets adjacent to one pair of clamping jaws and then progress successively upwardly and transversely across 5 the inclined lower edges of the several carbon sheets toward the other pair of carbon sheet holding jaws, and then slide off in between the broad faces of the several carbon sheets.

It follows from this that the lower edges of 10 the carbon sheets are at no time engaged over any considerable area by shoulders on the record webs and no tendency therefore exists to produce any substantial pull over any considerable area of the lower edge of the carbon sheets, 15 whereby the latter are not drawn upwardly from their lower edges and neither distorted or displaced to such an extent that they are torn or wrinkled, whereby the objectionable results above-mentioned are avoided. 20 Although it is only necessary to arrange the lower edges of the carbon sheets obliquely for the purpose of accomplishing the above results, it is also preferable to construct the upper edge 47 of each carbon manifolding sheet of oblique 25 or angular form relative to the longitudinal line of movement of the record sheets, as shown in Figs. 6 and 7, in order that the same carbon may be interposed between the record sheets with either of its transverse edges arranged at 30 the rear end thereof and thus avoid any particular care on the part of the operator when assembling such carbon sheets with the record webs.

- wardly relative to one or more carbon sheets forwhile the latter are held stationary in order to transfer the carbon sheets from the foremost section or set of sheets of the webs to the next
- 20 following set or section of sheets that the shoulders which exist at the folds between adjacent sections are liable to catch the lower transverse edge or edges of the carbon sheets and either crumple or tear the same so as to interfere with
  25 the manifolding operation or impair the quality of the manifold work which results from either tearing the carbons or wrinkling the same.

This tendency of the record sheets to catch at the turns between the same on the lower edge
30 of the carbon sheets is further increased when the line of division between adjacent sets of sheets at the turns thereof is defined by the perforations 20 which are usually employed to facilitate tearing or severing of one set of sheets
35 from another in the webs.

The catching of the record sheets against the lower edges of the carbon sheets by engagement of the shoulders or perforations at the junction between adjacent sets of record sheets in the

If desired, however, only the lower edge of the 35 carbon sheet may be of oblique form and the upper edge thereof may be arranged at right angles to the longitudinal line of movement of the record sheet through the machine, as shown at **48** in Fig. 8. 40 In both cases, however, the longitudinal edges 49 of the carbon manifolding sheets are parallel with the longitudinal line of movement of the record sheets inasmuch as this form of sheet is more practical from a manufacturing stand-45 point, and it is also desirable for the same reason to make both the upper and lower edges of the carbon sheets of oblique form and parallel with each other so that the same in effect have the shape of a parallelogram. 50 In order to permit of thus holding the carbon sheets securely at their lower edges while arranged obliquely relative to the length of the machine and the line of movement of the record sheets the rear jaws of both pairs of grippers 55 are preferably of the same length but the companion front jaw of one pair, for example the right hand jaw 34 as shown in Figs. 1, 6 and 7, is arranged somewhat lower than the front jaw associated with the pair of grippers at the left 60 hand side of the machine, which relative longitudinal displacement of these two front jaws corresponds to the angularity of the lower edge of the carbon sheets and enables both of these front jaws to grip the carbon sheets at their 65 lower edges adjacent to the side edges thereof in cooperation with the rear jaws. By this means the several carbon sheets are held properly in position against liability of being wrinkled by the upward movement of the record webs when 70 substituting an unwritten set of sheets for the previously completed set of sheets, while at the same time leaving those parts of the carbon sheets above the clamping jaws free to be smoothed out by the upward sweep of the record 75

- 40 web is due to the fact that these shoulders and perforations are arranged along transverse lines on the webs and engage simultaneously with the lower edges of the several carbon sheets if these lower or rear edges of the carbon sheets
- 45 are also arranged on a transverse line which is arranged at right angles to the longitudinal movement of the record sheets. If such a simultaneous engagement of the shculders or perforations at the division line between adja-
- **50** cent record sheets with the lower edges of the several carbon sheets is permitted to occur a substantial upward pull would occur on the carbon sheets along substantially the entire lower edge which the carbon sheets are not capable of
- 55 resisting due to the delicate character of the tissue from which the same are made. Such displacement or rupturing of the carbon sheets is objectionable and seriously interferes with the proper operation of this manifolding device.
- In order to avoid this result the lower trans-**60** verse edge of each carbon sheet is arranged obliquely or at an angle to the longitudinal line of movement of the record sheets, as shown at 46 in Figs. 6, 7 and 8. As a result of the angu-65 larity of the lower edge of each of these carbon sheets the transverse shoulder which is formed by the fold, crease or line of perforations on the record v.ebs between adjacent sections or leaves at right angles to the longitudinal line of move-70 ment will only engage with the oblique lower edge or edges of the carbon sheets along a comparatively small area of contact at any one time, as indicated at 471 in Fig. 7. This area of contact between the shoulders of the record 75 webs along the lines between adjacent sets of

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sheets past the same and thus maintaining the carbon sheets always in a smooth and unwrinkled condition for producing good carbon reproductions of the typewritten matter.

It has been found by experience that no difficulty is experienced in feeding those upper edge portions of the carbons underneath that particular front gripping jaw which is lowermost, but in the manipulation of the carbons the upper parts of the carbons adjacent to the opposite longitudinal side thereof are apt to be turned back or curled over by engagement with the lower er end of the elevated or left hand front gripping jaw due to an interference between this jaw and the parts of the sheets. In order to avoid this the

said platen is mounted, comprising a frame which is adapted to be supported on said carriage which includes two vertical end plates and upper and lower horizontal cross bars connecting said end plates, front gripping jaws mounted on said end 5 plates and adapted to engage with the front side of said carbon sheets, rear jaws adapted to engage with the rear side of said carbon sheets and provided with rearwardly projecting flanges which are pivoted at their upper ends on said 10 upper cross bar, cams arranged in rear of said rear jaws and adapted to actuate the latter, a horizontal shaft journaled on said end plates and supporting said cams, said end plates being provided on their rear ends with notches adapted 15

- 15 the carbon sheets. In order to avoid this the front upper or advanced gripping jaw, which in this case is at the left hand side of the machine, is provided at its lower edge with an inclined guide 50 which projects forwardly a sufficient extent so that when the operator moves the left hand edge of the carbons upwardly the same will be directed by the guide 50 underneath the left hand jaw 34 without any liability of interference between these parts or any displacement of the
- 25 carbon sheets.

In the standard Royal typewriter the record sheet, when using the machine for ordinary writing, is held down upon the upper part of the platen by means of guide rollers 51 which are mounted on a shaft 52 having its opposite ends 30 movably connected by means of vertically swinging arms 53 with the rear part of the carriage. Inasmuch as the rollers 51 would interfere with the application of the present manifolding device to the Royal typewriter these rollers are 35 moved upwardly and rearwardly away from the platen in the position shown in Figs. 1, 2 and 3, and utilized as part of the guide means for directing the webs of record sheets from the supply 40 stack to the platen. If desired the faces of the gripping jaws may be serrated, scored or grooved, as shown at 54 in Fig. 5, for the purpose of increasing the hold of the same on the carbon sheets. As a whole this manifolding device is very 45 simple in construction, the same has comparatively few parts, all of which can be readily manipulated without liability of getting out of order, and the same can be readily applied to and re-

to engage a rear bar of said carriage and with downwardly facing shoulders adapted to engage with an intermediate bar of said carriage, and means for holding said end plates in engagement with said carriage. 20

3. A manifolding device for typewriting machines having a platen and a carriage on which said platen is mounted, comprising a frame which is adapted to be supported on said carriage which includes two vertical end plates and upper and 25 lower horizontal cross bars connecting said end plates, front gripping jaws mounted on said end plates and adapted to engage with the front side of said carbon sheets, rear jaws adapted to engage with the rear side of said carbon sheets 30 and provided with rearwardly projecting flanges which are pivoted at their upper ends on said upper cross bar, cams arranged in rear of said rear jaws and adapted to actuate the latter, a horizontal shaft journaled on said end plates 35 and supporting said cams, said end plates being provided on their rear ends with notches adapted to engage a rear bar of said carriage and with downwardly facing shoulders adapted to engage with an intermediate bar of said carriage, and 40 means for holding said end plates in engagement with said carriage, including a catch having a hook at its lower end adapted to engage underneath the intermediate bar of said carriage, a longitudinal slot in its central part and a finger 45 piece on its upper end, a threaded stud which is arranged on the respective end plate and on which said catch slides by means of its slot, and a clamping screw nut applied to said stud and engaging said catch. 50 4. A manifolding device for typewriting machines having a platen, comprising pairs of jaws arranged adjacent to opposite side edges of the intercalated record and carbon sheets, each pair being arranged to grasp one side edge of the 55 carbon sheets projecting laterally beyond the corresponding edge of the record sheets with which said carbon sheets are assembled, and the jaws of one pair being arranged in advance of the jaws 60 of the other pair. 5. A manifolding device for typewriting machines having a platen, comprising pairs of jaws arranged adjacent to opposite side edges of the intercalated record and carbon sheets, each pair having front and rear jaws which are adapted to 65 engage the front and rear side of one side edge portion of the carbon sheets which projects beyond the corresponding side edge of the record sheets, one pair of jaws being arranged in advance of the other pair, and the front jaw of the 70 advance pair having its receiving end provided with an inclined guide for directing the carbon sheets between the respective jaws.

**50** moved from typewriters of standard construction, and thus permits the same typewriter to be conveniently used either for ordinary typewriting or for continuous billing.

I claim as my invention:

1. A manifolding device for typewriting ma-55 chines having a platen and a carriage on which said platen is mounted, comprising a frame which is adapted to be supported on said carriage which includes two vertical end plates and upper and lower horizontal cross bars connecting said end **5**0 plates, front gripping jaws mounted on said end plates and adapted to engage with the front side of said carbon sheets, rear jaws adapted to engage with the rear side of said carbon sheets and provided with rearwardly projecting flanges which are pivoted at their upper ends on said upper cross bar, cams arranged in rear of said rear jaws and adapted to actuate the latter, and a horizontal shaft journaled transversely on said 70 frame between said upper and lower bars and supporting said cams, said flanges being provided in their lower parts with notches which receive said shaft and lower bar. 2. A manifolding device for typewriting machines having a platen and a carriage on which

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