

June 28, 1949.

G. G. DORR

2,474,658

TYPE PALLET ALIGNING JIG

Filed July 6, 1946

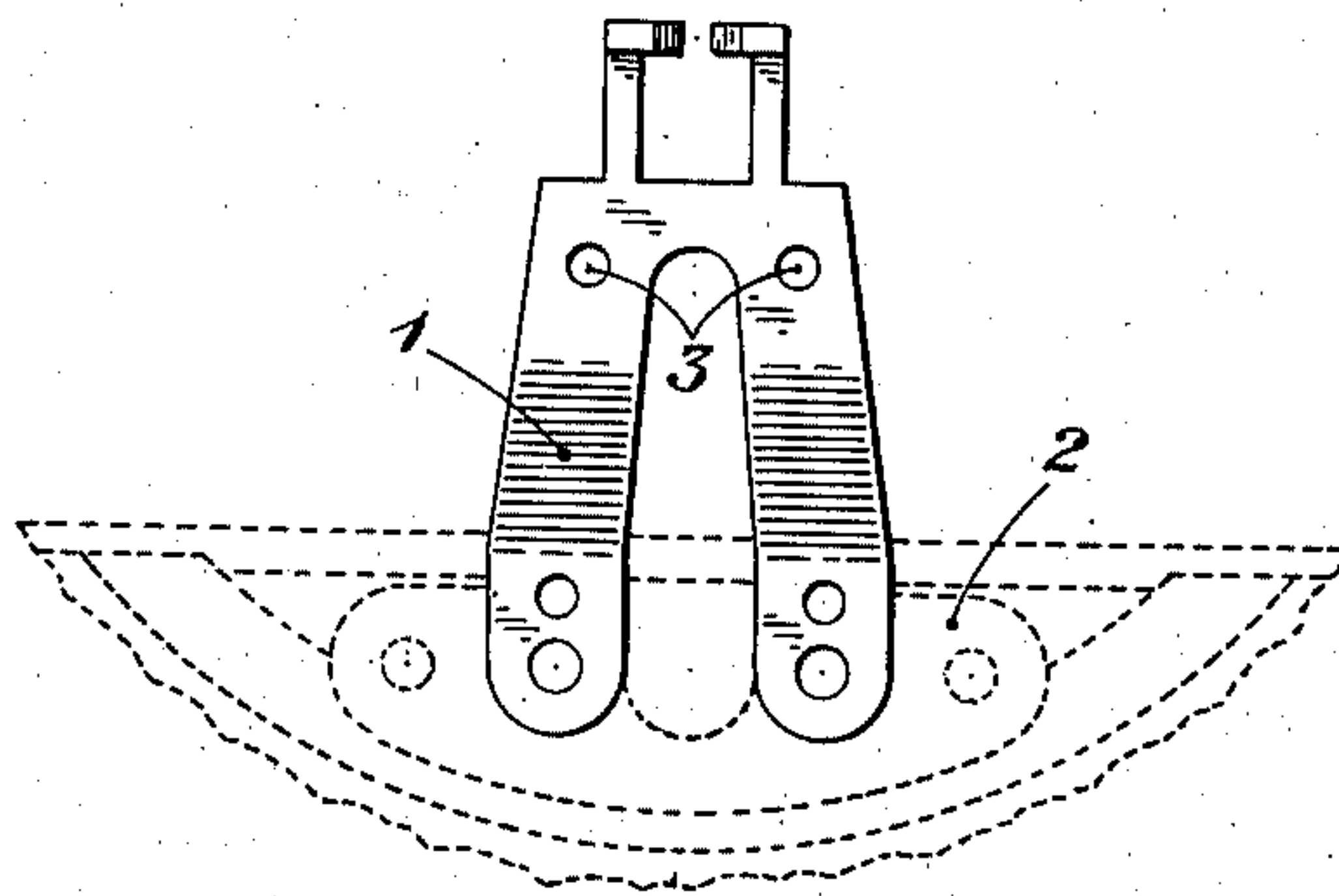


Fig. 1

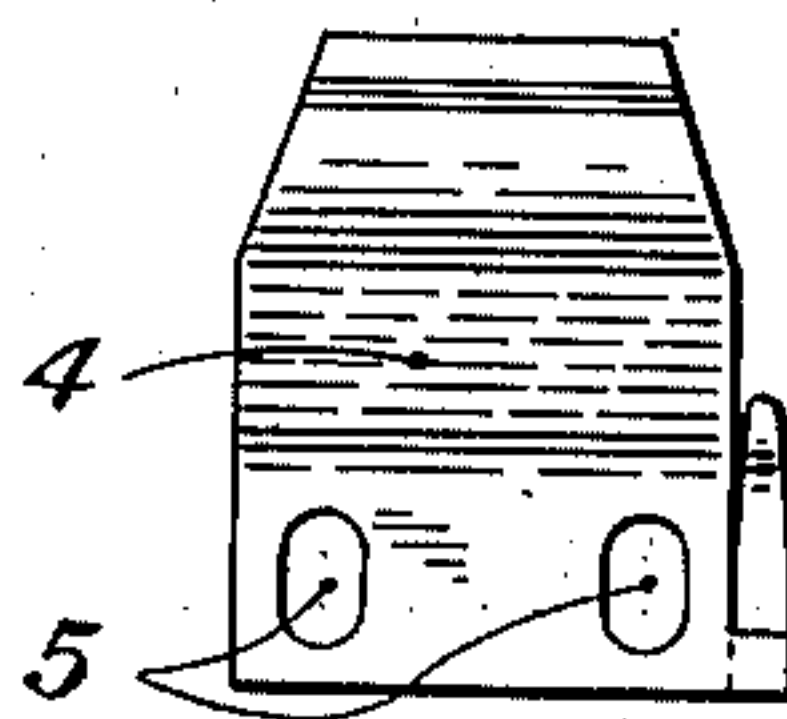


Fig. 2

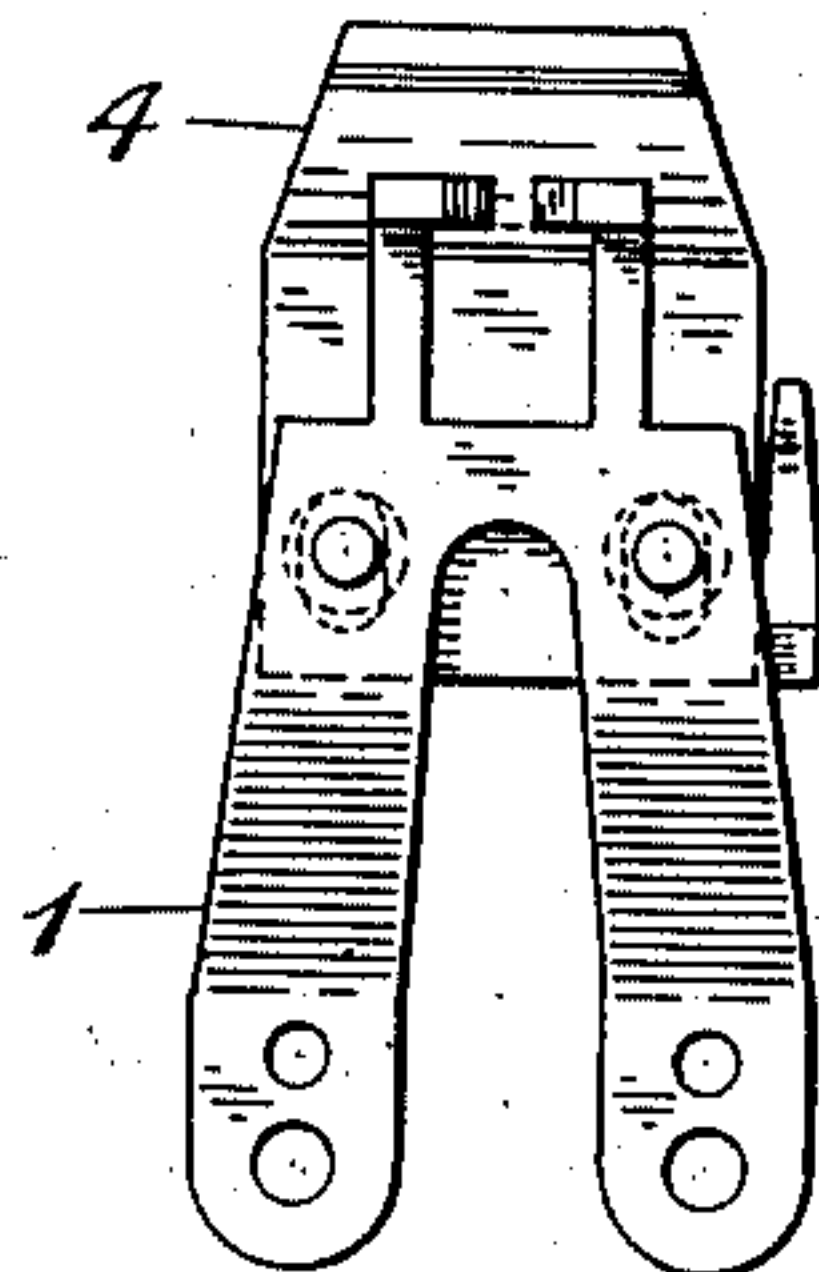


Fig. 3

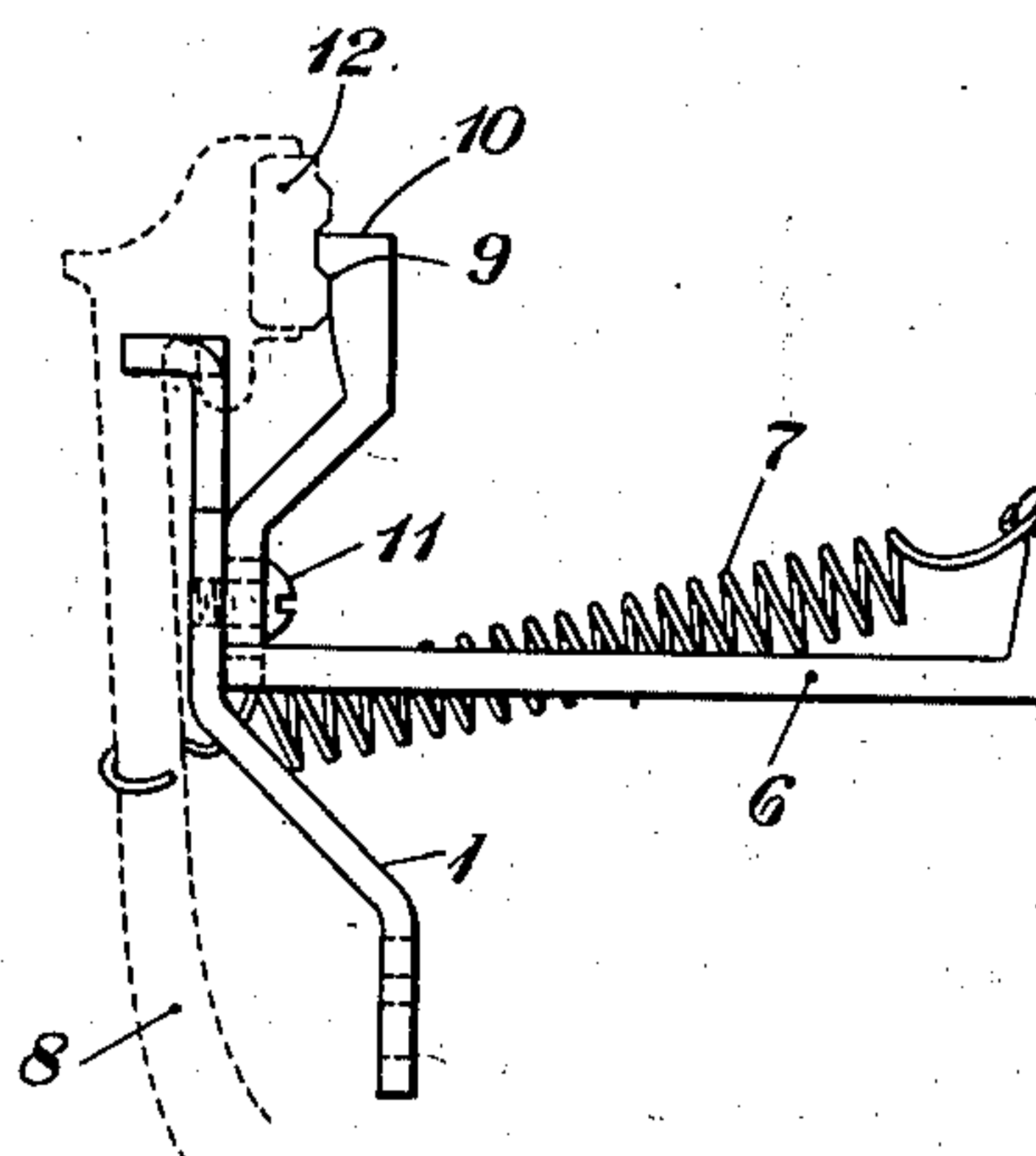


Fig. 4

BY

INVENTOR
G. G. Dorr
John M. Long
ATTORNEY

UNITED STATES PATENT OFFICE

2,474,658

TYPE PALLET ALIGNING JIG

Gilbert Garvin Dorr, Nashville, Tenn., assignor
to American Telephone and Telegraph Com-
pany, a corporation of New York

Application July 6, 1946, Serial No. 681,747

5 Claims. (Cl. 113—99)

1

This invention relates to means for aligning type-pallets during the process of soldering the pallets to the type-bars of a teletypewriter or other similar writing machine in which they are employed.

In the maintenance of teletypewriters it is sometimes necessary to replace type-pallets either because of damage or wear, or to provide a different symbol or character that may be required for the special service in which the teletypewriter is employed. Obviously, it is necessary to so position the new type-pallet upon the type-bar that the character printed by that type-pallet will be in alignment with the other printed characters of the teletypewriter. Heretofore, pliers of various types were employed to bend the type-bars (after the pallets had been soldered thereto) in order to bring the printed characters in proper alignment upon the paper, but for obvious reasons such methods were unsatisfactory. The object of the present invention is to position the type-pallet upon the type-bar prior to soldering it thereto, and to hold the pallet and type-bar fixedly in the proper relationship during the soldering process so that the characters upon the type-pallet, when printed, will be in alignment with the other printed characters of the teletypewriter.

This invention will be fully understood from the following description, when read in connection with the drawing of which Figure 1 shows a modified type-bar guide, Fig. 2 shows the aligning jig designed for attachment to the type-bar guide of Fig. 1, Fig. 3 shows the assembly of the said jig and guide, and Fig. 4 shows the manner in which a type-bar and pallet are held in the device that constitutes the invention.

In the making of the device, in which the present invention is embodied, there is employed a type-bar guide, such as 1 of Fig. 1, which is a modification of the well-known type of guide, the modification consisting in the removal of the ribbon-carrier extensions and the drilling and tapping of the holes necessary for the attachment of the aligning jig of Fig. 2. The guide is fastened by screws to the type-carriage, a fragment of which is represented by 2, but which is shown more fully in Fig. 1 of the patent to Morton et al. No. 1,904,164, dated April 18, 1933. As stated in that patent, page 6, at line 27, the type-bars and the pull-bars "are arranged in a circular manner about printing point 154, so that the travel of each individual type bar is identical." As previously mentioned, the ribbon-carrier extensions of the type-bar guide have been removed

2

and the holes 3 have been drilled and tapped for engagement with screws 11 to hold against the said guide the aligning jig 4, the front view of which is shown in Fig. 2, and a side view in Fig. 4.

The jig 4 has therein the slots 5, through which pass the screws (shown in Fig. 4) that engage the holes 3 of the guide, thereby holding the parts securely together. As also shown in Fig. 4, the jig 4 has an arm 6 that extends rearwardly from the face of the jig and has a hook at the end thereof, the purpose of which is to hold one end of the spring 7, the other end of which, when placed around a type-bar, such as 8, holds the latter in position during the operation of soldering the type-pallet 12 to the bar.

The face of the jig, as shown in the side view in Fig. 4, is curved to simulate a section of the platen with which the type coacts in the operation of the machine. The extension at the upper end of the curved face, indicated by 9, should be cut at the same angle as the upper edge of the lower case type upon the pallet. The thickness of the extension, viz. the distance between 9 and the upper edge 10 of the jig should be such as to fit between the upper and lower case characters on the type-pallet and should be parallel to this portion of the pallet when the type-bar is raised into position for the alignment work. When the type-bar is in position, as shown in Fig. 4, the face of the type will be in contact with the curved face of the jig and properly positioned by the extensions.

The manner in which this invention is employed in a teletypewriter to align a type-pallet upon its type-bar is as follows:

The type-carriage is removed from the typing unit and the aligning jig, shown in Fig. 3, is substituted for the type-bar guide of the teletypewriter, and the screws 11 are loosened. The regular "N" type bar (or the master "N" if it is used) is placed between the prongs of the guide 1, as shown in Fig. 4, in such manner as to allow the face of the type to rest against the curved face of the jig. To effect the adjustment, the jig is raised or lowered on the guide 1 (which movement is permitted by the slots shown in Fig. 2) so as to bring the extension of the jig against the bevelled upper edge of the type. When so adjusted the screws 11 are tightened and the reference point for the remaining type-pallets has been established. The regular "N" or master "N" type-bar is then lowered to its normal position and the type-bar whose pallet has been removed and upon which a new pallet is to be placed is then brought into engagement with the

3

prongs of the guide. The spring 7 is then hooked around the type-bar and the pallet which fits loosely over the end of the bar is brought into engagement with the jig. The pallet, is then adjusted to fit against the jig with the face of the type against the curved portion of the jig and the beveled edge of the type against the beveled extension. When so adjusted the pallet may be soldered to the type-bar.

While this invention has been described with respect to its application to a teletypewriter, it is applicable to other forms of typewriters in which the type-bars are caused to impress the type upon the platen at a pre-fixed point by means of a guide similar to that referred to herein.

Although this invention has been disclosed in a single form of embodiment, it is capable of embodiment in other and different forms without departing from the spirit and scope of the appended claims.

What is claimed is:

1. Means for aligning a group of the type-pallets of a teletypewriter prior to fastening them to the type-bars thereof, each of said pallets having thereon two characters which are spaced apart, the distance between the lower edge of the upper character and the upper edge of the lower character being the same for all of a given group of pallets, the said means comprising a jig with which the said pallets are intended to coact during the aligning operation, the said jig being so formed that the portion thereof which coacts with the pallet will fit snugly between the upper-case and the lower-case characters of the said group of pallets and will have the same curvature in that portion with which the lower-case character coacts, as the platen of the teletypewriter.

2. The invention defined by claim 1 in combination with a type-bar guide, the connection between the jig and the guide being such as to afford vertical adjustability of the jig.

3. A jig for aligning a group of the type-pallets of a typewriter, each of the said pallets having thereon two characters which are spaced apart; the distance between the lower edge of the upper character and the upper edge of the lower character being the same for all of a given group of pallets, the said jig being adapted to be fastened to the type-bar guide of the typewriter, the jig having a curved face portion simulating a section of the platen of the typewriter with which the pallet is designed to coact, the face portion having an extension at its upper end which projects towards the front of the typewriter and makes the same angle with the face of

4

the jig as does the upper surface of the lower-case type on the pallet, the vertical thickness of the extension being such as to fit snugly between the upper-case and the lower-case characters upon all type-pallets of the said group.

4. A jig for aligning a group of the type-pallets of a typewriter, each of said pallets having thereon two characters which are spaced apart, the distance between the lower edge of the upper character and the upper edge of the lower character being the same for all of a given group of pallets, the said jig having a curved face portion simulating a section of the platen of a typewriter with which the lower-case character of the pallet is designed to coact, and an extension portion which projects towards the front of the typewriter, the height of the front face of said extension being the same as the distance along the pallet between the upper-case and the lower-case characters upon all pallets of the said group and the under surface of said extension having the same slope as the upper surface of the lower-case character upon each of said pallets.

5. Means for aligning a group of type-pallets of a teletypewriter prior to fastening them to the type-bars thereof, each of said pallets having thereon two characters which are spaced apart, the distance between the lower edge of the upper character and the upper edge of the lower character being the same for all of a given group of pallets, the said means comprising in combination, a jig with which the said pallets are intended to coact during the aligning operation, the face of the said jig being so formed as to fit snugly within the space between the upper-case and lower-case letters of all pallets of the said group to ensure the proper alignment thereof, and having an arm attached to and extending rearwardly from the face of the jig and having a hook at the end thereof, a type-bar guide to which the said jig is attached and a spring, one end of which is connected to the said hook and the other end connected to the type-bar in the said guide upon which the said pallet is to be fastened.

GILBERT GARVIN DORR.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,608,015	Brandt	Nov. 23, 1926
1,890,659	Thorell	Dec. 13, 1932