D. C. HUGHES.

TYPE PLATE FOR ADDRESSING MACHINES.

APPLICATION FILED MAR. 18, 1910.

1,036,118. Patented Aug. 20, 1912.

Fig. 2

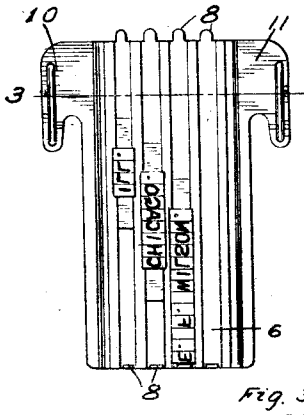


Fig. 1

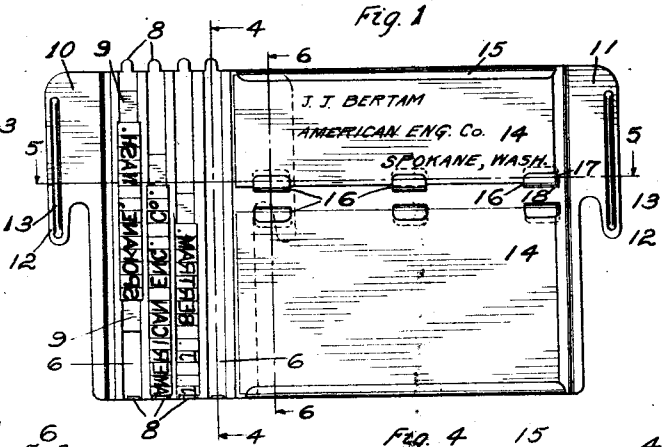


Fig. 3

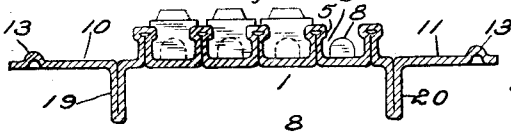
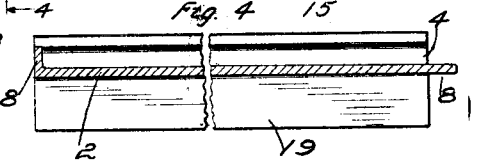


Fig. 4



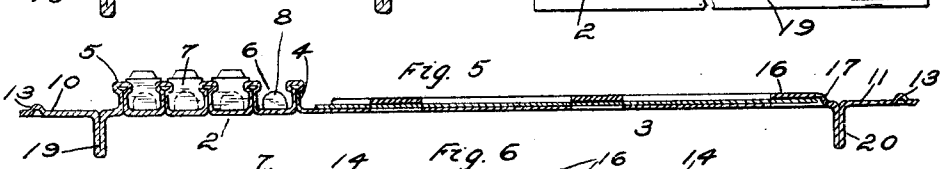


Fig. 6

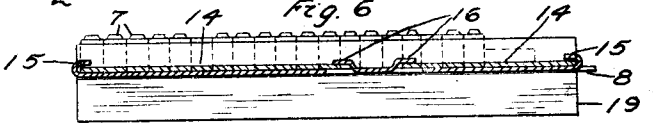


Fig. 7

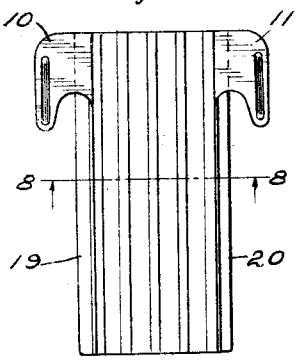


Fig. 9

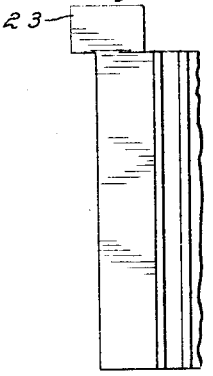


Fig. 10

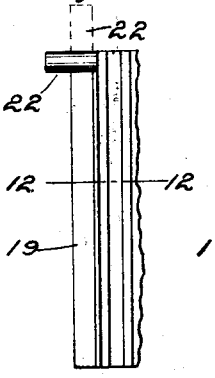


Fig. 11

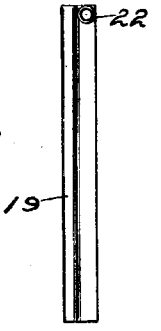


Fig. 8

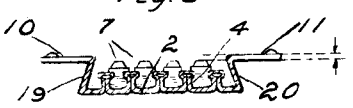
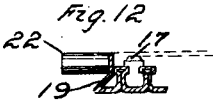


Fig. 12



Witnesses

Robert McCreadie

John R. Jepson.

Inventor

Darydd C Hughes

by Church Church Hardy Atty.

UNITED STATES PATENT OFFICE.

DAVYDD C. HUGHES, OF CHICAGO, ILLINOIS, ASSIGNOR TO ROGERS ADDRESSER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TYPE-PLATE FOR ADDRESSING-MACHINES.

1,036,118. Specification of Letters Patent. **Patented Aug. 20, 1912.**

Application filed March 18, 1910. Serial No. 550,233.

To all whom it may concern:

Be it known that I, DAVYDD C. HUGHES, a citizen of the United States, and a resident of Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Type-Plates for Addressing-Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to make and use the same.

The object of my invention is to provide a type plate of this character which will have all of its parts necessary to make up a complete plate integrally formed up from a single sheet of metal.

My invention consists primarily in a one-piece type plate presenting a plurality of type slots, grooves or channels, each having two inwardly directed flanges, said piece also having spacing flanges for holding a like type holder out of contact with type in said grooves, and having integral supporting arms at its end by which the carrier will be sustained in a substantially upright position in a plate drawer.

The preferred form of my invention comprises a substantially rectangular sheet of metal having a portion thereof adjacent one end crimped or folded to form T-shaped ribs spaced apart to provide dovetail type receiving slots therebetween and having substantially all of the remaining portion left blank to form an extension upon which to place a suitable name card. The said plate is also crimped adjacent each end to form a depending flange parallel with said ribs said flanges serving as guides for said plate when the plate is in use in an addressing machine and as spacing means when said plates are stacked up in a filing cabinet or in the magazine of an addressing machine. The edges of the plate are also provided with outstanding or laterally projecting arms to form suitable supporting means for maintaining said plate in its proper position in the drawer of a cabinet. The outer edges of said lugs are provided with stiffening ribs and the ends of the slots are provided with type stops against which the type abut. The upper and lower edges of the blank portion or extension have flanges formed thereon which coöperate with a number of projections struck up from said extension to hold a name card. A complete integral type plate is thus produced which is compact and cheap to manufacture.

Reference may be had to the accompanying drawings.

Like parts will be referred to by similar reference numerals throughout the several views.

Figure 1 is a top plan view showing the preferred embodiment of my invention: Fig. 2 is a similar view of a modified form of my invention; Fig. 3 is a sectional view on line 3—3 of Fig. 2; Fig. 4 is a sectional view on line 4—4 of Fig. 1; Fig. 5 is an enlarged sectional view on line 5—5 of Fig. 1; Fig. 6 is an enlarged sectional view on line 6—6 of Fig. 1: Fig. 7 is a top plan view of another modification of my invention. Fig. 8 is a sectional view on line 8—8 of Fig. 7; Figs. 9, 10 and 11 are fragmentary views of a type holder showing the development of a modified form of supporting arm; and Fig. 12 is a sectional view on line 12—12 of Fig. 10.

Referring first to Figs. 1, 4, 5 and 6, the numeral 1 represents a substantially rectangular sheet of metal upon which are integrally formed all of the parts entering into a complete type plate structure such as may be used in addressing machines. The plate 1 comprises a body-portion 2 and an extension 3 thereon. In the structure which I have shown, the body portion 2 and the extension 3 are integrally formed from a single sheet of metal and they preferably lie in the same plane. The body portion 2 is crimped or folded intermediate one of its edges and the extension 3 into a series of parallel T-shaped ribs 4 projecting upwardly at right angles from the surface thereof. These ribs are enlarged or flattened out at their outer edges to form laterally projecting flanges 5 which have their under sides extending substantially at right angles to the ribs; that is, in flattening out the ribs the metal forming the flanges is tightly compacted and the under side of the flanges is caused to extend at substantially right angles to the ribs. The ribs are spaced at some distance apart on said body portion thus providing between them a series of parallel dovetail type receiving and containing slots 6. The flanges 5 project laterally over the tops of these slots and thus restrict

or reduce the mouths or entrances thereof. The ribs 4 are adapted to retain between them in the slots 6, the type 7 having grooves in their sides adapted to register with and to receive the flanges 5 on the ribs. The type 7 are inserted into the slots 6, preferably from the ends thereof, and are arranged to slide longitudinally therein with a sufficient degree of looseness to permit their being suitably arranged. The flanges 5 on the ribs 4 in fact retain the type therebetween in the slots against vertical and lateral movement.

Formed integrally with the body portion 2, and substantially closing the ends of the slots 6, are the type stops 8 which are intended to prevent the type from accidentally dropping out of the ends of the slots after they have once been placed therein. When the type plate is formed the stops at one end of the slots are arranged to lie in the same plane as the body portion, but after the type have been placed in the slots they are turned up at right angles to said body to practically close the ends of the slots. However, before these stops are turned up, a tightly fitting rubber plug 9, or a metallic follower may be slipped into the slots at one or both ends of a row of type in order to prevent the type from shifting in said slots. Of course if the type are positioned at the ends of the slots the plugs 9, or followers at that end, will be unnecessary since the stops 8 will hold said type in place.

It is well known that type plates of the character used in addressing machines are adapted to be filed in cabinet drawers and to be arranged in said drawers in a manner similar to a card index. In order to permit said plates to be properly supported in the cabinet drawers, I provide the arms 10 and 11 formed integrally on the upper edges of the body portion 2 and the extension 3, preferably projecting laterally therefrom in the same plane as said body portion and extension respectively. The lower ends of these arms are provided with depending extensions 12 arranged at a sufficient distance from the edges of said body portion and extension to form hooks which are preferably arranged to engage the edges of the drawers in which these plates are filed. Extending practically the entire length of the arms 10 and 11 and their depending extensions 12 are the stiffening ribs 13 pressed up therefrom.

The extension 3 is provided on the body portion 2 for the purpose of carrying information by which to identify each type plate and by which it may be indexed and filed. This information may be placed on suitable cards 14 retained in place by the upturned flanges 15 formed integrally from said extension on its upper and lower edges respectively and by the projections 16 struck up from the surface of said extension, as best shown in Figs. 1 and 5. The projections 16, shown at the right hand end of Fig. 1, are preferably joined to the extension on two sides 17 and 18 to prevent the cards from becoming accidentally displaced or removed from the face of the extension. It will be understood, however, that the flanges 15, the projections 16 and the cards 14 held thereby are not essential since it is obvious that the information may be printed directly on the face of the extension.

In addressing machines of the type with which I prefer to use my invention it is essential that guides be provided on said type plate adapted to direct the movement of the plate while it is in the machine. Accordingly I crimp or fold the body portion 2 and the extension 3 of the plate adjacent their respective ends or side edges into guide flanges 19 and 20, depending at right angles from the bottom or under face of the body portion and extension. These guide flanges are preferably formed by simply folding back the sheet metal once upon itself, as clearly indicated in Fig. 5, and lie along a line parallel to the ribs 4 and slots 6 on the upper face of said body portion. The flanges are slightly higher than the height of the type so as to separate the plates to protect the type when said plates are stacked in a file drawer or in the magazine of an addressing machine.

It may be found desirable to dispense entirely with the extension 3 in order to provide a type plate which will occupy less space both in the machine and in the filing drawer. In this event the supporting arm 11 and the guide flange 20 may be formed directly on the side edge of the body portion 2, as clearly indicated by the dotted line in Fig. 1, the result being a plate like that shown in Fig. 2. This form of plate may be filed in a cabinet drawer with its under side facing the forward end of the drawer. The indexing information may then be placed on the under side of said plate between the flanges 19 and 20 in any suitable manner.

Referring now to Figs. 7 to 12 inclusive, I will describe a modified form of my invention in which the type plate is made still more compact and the supporting arms are made of a different shape. In Figs. 7 and 8 the flanges 19 and 20 are formed integrally with the base portion 2 and project upwardly from the same side of said plate as the ribs 4. These flanges are inwardly inclined at an angle to the base portion 2 and are slightly higher than the face of the type in the slots (as indicated by the dotted lines in Fig. 8), so that when the plates are stacked in a drawer the flanges prevent one plate in the drawer from coming in contact with the face of the type carried in the slots of the plate adjacent to it in order, thus

protecting the type from injury. It will be noted in this modification that the supporting arms 10 and 11 lie in a plane above the plane of the body portion 2. Figs. 9, 10, 11 and 12 show the development of a modified form of supporting arm. This supporting arm comprises a small tubular member 22 formed integrally with and projecting laterally from the guide flanges. When the type plate is blanked out from a sheet of metal a small rectangular plate 23 is left at the upper end of that portion of the type plate which forms a guide flange. This is then rolled into a tube and bent at right angles to the flange, as indicated in Figs. 10 and 11. It will be noted by reference to Fig. 12 that when the type plate is completely formed that the upper side of the tubular member 22 lies in a plane substantially the same as that in which the flanges 10 and 11 of Fig. 8 lie; *i. e.*, in a plane slightly higher than the plane of the face of the type in the slots. If desired, the type plate may be placed in a tin or solder bath after it is completely formed. The tin or solder fills up the crevices made when the plate is crimped and binds all of the parts together into a neat, rigid structure.

I claim:

1. The combination with metal type having substantially horizontal channels on each side thereof, of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom and a plurality of parallel rigid spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted and forming channels for receiving the base of the type, said ribs having oppositely disposed transversely extending flanges adapted to enter the channels of the type and hold them against vertical displacement doubled out of the side walls of the ribs, tightly compacted and having their under sides forming substantially right angles with the ribs.

2. The combination with metal type having horizontal channels on each side thereof, of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom having laterally extending supporting ears, and a plurality of parallel, rigid, spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted, said ribs having oppositely disposed transversely extending flanges doubled out of the side walls of the rib, having their under sides forming substantially right angles with the ribs and arranged to hold the type against vertical displacement by engaging in the channels in the sides of the type.

3. The combination with metal type having horizontal channels on each side thereof of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom having laterally extending hooked supporting ears, and a plurality of parallel, rigid, spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted, said ribs having oppositely disposed transversely extending flanges doubled out of the side walls of the ribs, having their under sides forming substantially right angles with the ribs and arranged to hold the type against vertical displacement by engaging in the channels in the sides of the type.

4. The combination with metal type having horizontal channels on each side thereof, of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom having laterally extending ribbed hooked supporting ears, and a plurality of rigid, spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted, said ribs having oppositely disposed transversely extending flanges doubled out of the side walls of the rib, having their under sides forming substantially right angles with the ribs and arranged to hold the type against vertical displacement by engaging in the channels in the sides of the type.

5. The combination with metal type having horizontal channels on each side thereof, of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom, spacing flanges doubled up from the metal of the holder and extending from the under side of the bottom, and a plurality of parallel, rigid, spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted, said ribs having oppositely disposed transversely extending flanges doubled out of the side walls of the rib, having their under sides forming substantially right angles with the ribs and arranged to hold the type against vertical displacement by engaging in the channels in the sides of the type.

6. The combination with metal type having horizontal channels on each side thereof, of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom having laterally extending supporting ears, spacing flanges doubled up from the metal of the holder and extending from the under side of the bottom, and a plurality of parallel, rigid, spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted, said ribs having oppositely disposed transversely extending flanges doubled out of the side walls of the ribs, having their under sides form-

ing substantially right angles with the ribs and arranged to hold the type against vertical displacement by engaging in the channels in the sides of the type.

7. The combination with metal type having horizontal channels on each side thereof, of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom having an indicia card receiving portion, and a plurality of parallel, rigid, spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted, said ribs having oppositely disposed transversely extending flanges doubled out of the side walls of the ribs, having their under sides forming substantially right angles with the ribs and arranged to hold the type against vertical displacement by engaging in the channels in the sides of the type.

8. The combination with metal type having horizontal channels on each side thereof, of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom having laterally extending supporting ears and a card-receiving portion, and a plurality of parallel, rigid, spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted, said ribs having oppositely disposed transversely extending flanges doubled out of the side walls of the ribs, having their under sides forming substantially right angles with the ribs and arranged to hold the type against vertical displacement by engaging in the channels in the sides of the type.

9. The combination with metal type having horizontal channels on each side thereof, of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom having an indicia card receiving portion, a pair of spacing flanges doubled up from the metal of the holder and extending from the under side of the bottom, and a plurality of parallel, rigid, spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted, said ribs having oppositely disposed transversely extending flanges doubled out of the side walls of the ribs, having their under sides forming substantially right angles with the ribs and arranged to hold the type against vertical displacement by engaging in the channels in the sides of the type.

10. The combination with metal type having horizontal channels on each side thereof, of a holder therefor formed from a single piece of sheet metal and comprising a flat bottom having laterally extending supporting ears and an indicia card receiving portion, spacing flanges doubled up from the metal of the holder and extending beneath the bottom, and a plurality of parallel, rigid, spaced apart ribs extending at right angles to the bottom, doubled up from the metal of the holder and having their sides tightly compacted, said ribs having oppositely disposed transversely extending flanges doubled out of the side walls of the ribs, having their under sides forming substantially right angles with the ribs and arranged to hold the type against vertical displacement by engaging in the channels in the sides of the type.

11. In a device of the character described, a supporting plate, means for securing thereon type, said plate having formed on its face a card-holding means comprising a top stop and a pair of lower stops, said lower stops being formed by striking ears up from the body of the plate, the cuts in the metal for one of said ears being through the metal on one side and end of the ear only.

In testimony whereof, I have hereunto set my hand, this 9th day of March, 1910, in the presence of two subscribing witnesses.

DAVYDD C. HUGHES.

Witnesses:
E. F. WILSON,
JOHN R. LEFEVRE.