

Oct. 8, 1929.

E. Z. LEWIS

1,731,017

BILLING SHEET

Filed March 24, 1924

FIG. 1.

C.B.A.R.R.				
ARTICLES	CAR	RATE	WEIGHT	TOTAL

C.B.A.R.R.				
ARTICLES	CAR	RATE	WEIGHT	TOTAL

C.B.A.R.R.				
ARTICLES	CAR	RATE	WEIGHT	TOTAL

C.B.A.R.R.				
ARTICLES	CAR	RATE	WEIGHT	TOTAL

FIG. 2.

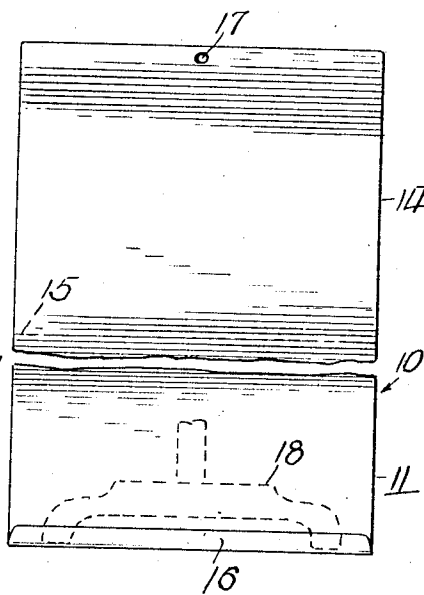


FIG. 3.

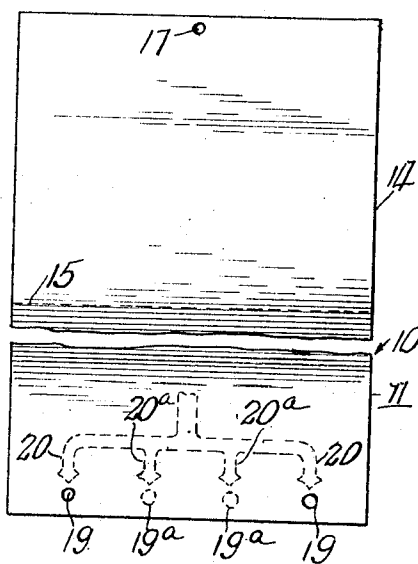


FIG. 5.

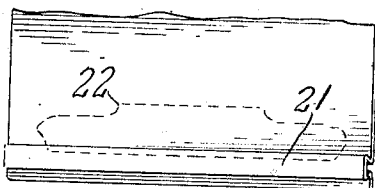
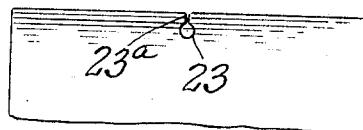


FIG. 4.

Inventor
Edward Z. Lewis
by Clarence E. Hollings Atty.

UNITED STATES PATENT OFFICE

EDWARD Z. LEWIS, OF EVANSTON, ILLINOIS, ASSIGNOR TO REMINGTON TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

BILLING SHEET

Application filed March 24, 1924. Serial No. 701,269.

This invention relates to a multiform billing sheet and consists of the filling sheet hereinafter described and more particularly pointed out in the appended claim.

5 The invention relates especially to the type of multiform billing sheet shown in the Patent No. 932,713 heretofore granted to me on August 31, 1909. Said patent is directed to a billing sheet comprising a number of forms, all printed on the same side of the sheet and arranged in vertical succession thereon from top to bottom of the sheet, with the first form at the top of the sheet, of a height equal to the length of the circumference of a typewriter platen, and with the downwardly succeeding forms progressively increased in vertical dimensions both as to height and as to the spacing between the horizontal lines of the forms in such proportions that, when wound, one upon the other on the platen, the tops of the forms will all fall, each upon that of the next preceding form.

The object of the present invention is to provide a billing sheet of the kind with means by which it may be readily delivered from a stack of bills of the kind to a multiform billing attachment for a typewriter of the general kind shown in my Patent No. 937,374, granted October 19, 1909, when equipped with feeding or delivery means such as that shown in the application for patent filed by me on the 24th day of March, 1924, Ser. No. 701,270.

In the drawings:—

Fig. 1 is a view representing one form of the improved multiform billing sheet.

Fig. 2 is a view of the rear face of the sheet shown in Fig. 1.

Fig. 3 is a view representing a rear face view of a somewhat modified form of the improved sheet.

Fig. 4 is a fragmentary detail view showing another modified form of one end of the sheet.

Fig. 5 is a fragmentary view showing another modified form of the other end of the sheet.

Referring to the embodiment of the invention illustrated in Fig. 1:—10 indicates the billing sheet. 11, 12, 13, 14 indicate four printed forms on the front face thereof. Said forms may be of any character required in the

particular business for use in which the are designed. If desired, the billing sheet may be provided with lines of weakening or perforation 15 to facilitate the separation of the several forms after the bill has been written. The forms are of vertically increased dimensions and spacing (beginning with the top form 11 which is the smallest form, and ending with the bottom form 14, which is the largest form) as in the case of the billing sheet shown in my patent hereinbefore referred to, so that each form may completely encircle the platen of a typewriter when the sheet is wound around the platen with a carbon ribbon.

At the top of the sheet is provided an extension or short flap 16, which is folded back against the rear face of the sheet. This flap provides a tab or projection to be engaged by a finger which will slide upon the rear face of the sheet until it comes into engagement in the angle of the fold between the flap and the sheet.

At the bottom of the sheet is provided a hole or perforation 17. Said hole is arranged, as shown, in the middle of the sheet and its purpose is to receive a pin for supporting the sheet with others in a stack in a position to be fed to a billing attachment for a typewriter, such as that hereinbefore referred to. As will be understood, the stack of bills is supported by the aforesaid pin in a position with the top end of the bill down, as shown in Fig. 2. The pin preferably has a sharp or knife edge so that when the feeding or delivery device, as for instance the finger member or piece 18 shown in dotted lines in Fig. 2, slides down in engagement with the rear face of the bill so as to strike and engage the flap 16, the pull exerted by the finger on the bill with which it is engaged will act to tear the knife edge of the pin through the end of the sheet near the hole 17 and thus release the sheet from the stack. The bills may thus be fed one by one in succession to the platen.

Instead of the flap 16 the bills may be provided at their ends in position to be engaged by the feeding finger with a plurality of perforations 19, as shown in Fig. 3. Said per-

forations are arranged to correspond with a plurality of fingers 20 so that when the stack of bills is supported in proper position with reference to the billing attachment, said fingers will move in alignment with said perforations. If desired, and preferably in this case, the holes are arranged in alternate relation on successive sheets in the stack, as for example in an arrangement of four holes, two for each sheet; there would be the two holes 19, 19 on one sheet and on the sheet next below two holes 19^a, 19^a shown in dotted lines, and on the next following sheet two holes 19, 19 and so on. Thus, with a finger piece comprising the two fingers 20, 20 at the ends acting in line with the two holes 19, 19 and two intermediate fingers 20^a, 20^a acting in line with the holes 19^a, 19^a, in one feeding movement of the finger piece, the fingers would engage the sheet having the holes 19, 19, the fingers 20^a, 20^a, sliding inoperatively over the surface of the paper, thereby feeding the top sheet. In the next movement of the finger piece, the fingers 20^a, 20^a would engage in the holes 19^a, 19^a of the next succeeding sheet, the fingers 20, 20 in this case sliding inoperatively over the sheet (since there are in this case no holes 19, 19) thus feeding this sheet and in the next movement of the finger-piece the fingers 20, 20 would engage the holes 19, 19 in the next succeeding sheet, and so on.

In Fig. 4 I have shown still another formation of the sheet wherein the paper is bent in a fold to provide a projection 21 adapted to be engaged by a finger bar 22.

As will be manifest, the formation of the sheet for action upon it by the feeding or delivering device will depend upon the character of the sheet feeding and delivering device itself. In addition, the location of the part of the sheet to be engaged by the feeding and delivering device,—that is to say, whether it will be on the printed side of the sheet or on the reverse side or rear face of the sheet as shown in the drawings, will depend upon the manner in which the feeding or delivering device acts,—that is to say, whether it acts on the top of the stack of sheets or whether it acts on the bottom of the stack of sheets.

Instead of a closed perforation as 17 for engagement by the pin, the perforation may have a slit opening through one end of the sheet, as shown in Fig. 5, where 23 indicates the perforation and 23^a indicates a cut or slit opening from the perforation through one end of the billing sheet. In case the perforation of the sheet is so formed it would not be necessary for the pin on which the sheets of the stack are engaged and supported, to have a knife edge as a dull or rounded edge would pass through the slit 23^a when the sheet is given a pull by the feeding device.

The flap 16, or fold 21, or the stock between the top edge of the sheet and the pair of holes 19 or 19^a, forms a feedtool-abutment

adjacent to the top of the sheet, which abutment faces the perforation 17 or 23 at the bottom of the sheet, and on which the feedtool moving lengthwise of the sheet, so acts in a feeding operation that the sheet is forced from the sheet-holding pin, the sheet reacting on both the feedtool and pin until it leaves the pin.

I claim as my invention:

A billing sheet embodying a feedtool-abutment and having a perforation fit to receive a sheet-holding pin, the abutment and perforation being adjacent respectively to the top and bottom of the sheet, and the abutment facing towards the perforation.

In testimony that I claim the foregoing as my invention, I affix my signature this 4th day of February, A. D., 1924.

EDWARD Z. LEWIS.