

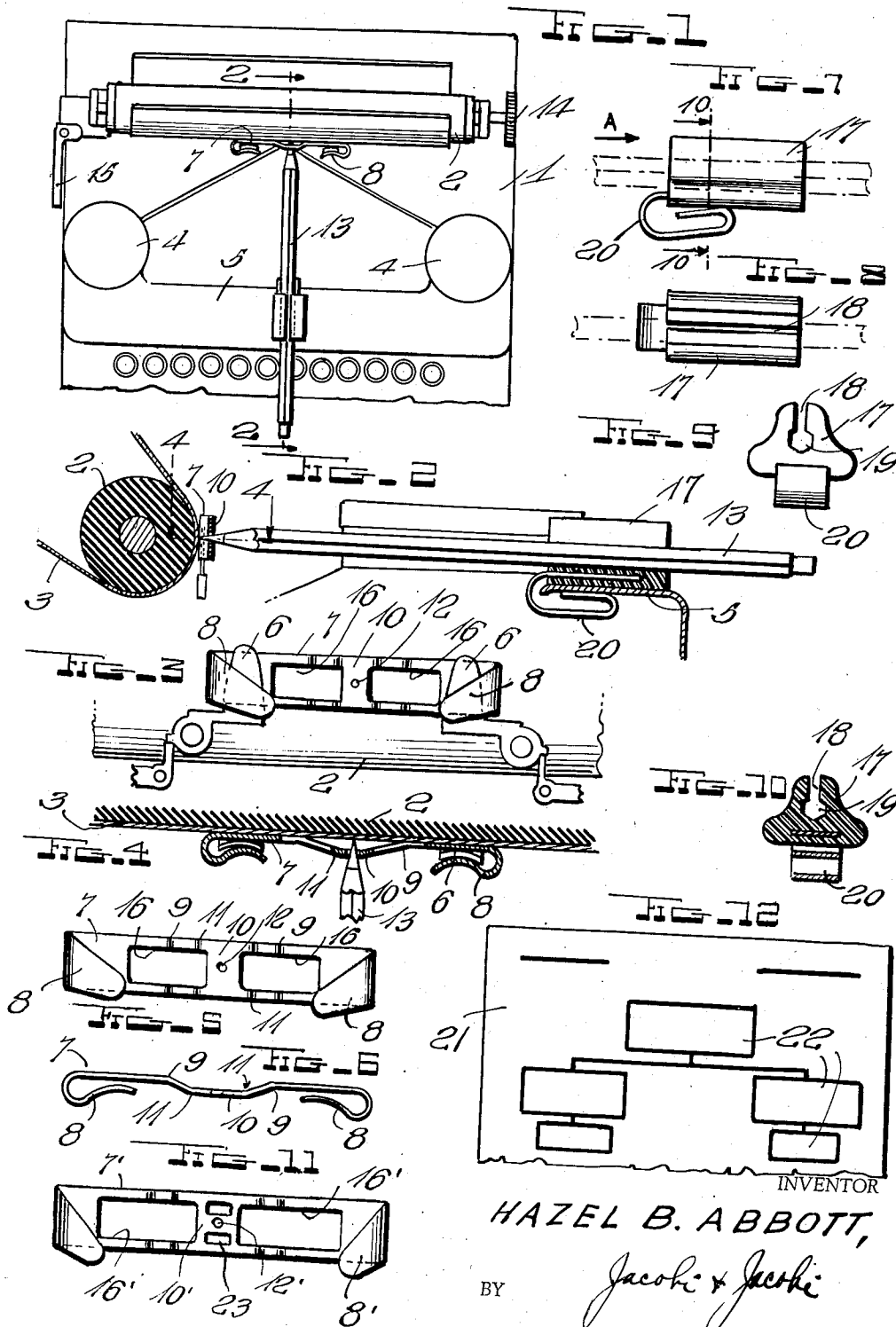
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LINE RULING ATTACHMENT FOR TYPEWRITERS

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LINE RULING ATTACHMENT FOR
TYPEWRITERS

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3 Claims. (Cl. 197—113)

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My invention relates to new and useful improvements in typewriter attachments and more particularly to an attachment in the nature of an accessory to be applied or removed at the will of the operator, the primary object of the invention being to provide such an attachment or an accessory as will enable the operator to produce on any typewriting machine a series of lines in the formulation of charts, and the like.

A further object of the invention resides in the provision of an attachment applicable to the fingers, normally used for holding cards and envelopes in position, for guiding a marking device, such as a pencil, or the like.

Still another object of the invention resides in the provision of a holder for a pencil or other marking device adapted to co-act with the marking guide on the fingers, so that designs may be produced on the paper or other work carried in the typewriting machine.

Still another object of the invention resides in providing a simple, inexpensive and efficient attachment which may be quickly and readily applied and removed at the will of the operator.

With these and numerous other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts, as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawing, forming a part of this application:

Figure 1 is a fragmentary top plan view of a typewriter with my attachment applied to use thereon;

Figure 2 is a fragmentary enlarged vertical section therethrough, as seen on the line 2—2 of Figure 1, with the marking device shown in elevation;

Figure 3 is a fragmentary enlarged elevation, showing my improved marking guide applied to use on the fingers of a typewriter;

Figure 4 is a horizontal section therethrough, as seen on the line 4—4 of Figure 2;

Figure 5 is a front elevation of my improved marking guide removed;

Figure 6 is a top plan view thereof;

Figure 7 is a side elevation of my improved holder for the marking device;

Figure 8 is a top plan view thereof;

Figure 9 is a front elevation of the same;

Figure 10 is a vertical transverse section therethrough, as seen on the line 10—10 of Figure 7;

Figure 11 is a front elevation of a modified form of marking guide, removed from the machine; and

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Figure 12 is an elevation of the character or type of chart that may be produced with the use of my invention applied to a typewriter.

In various industrial institutions and in governmental agencies, the officials are called upon from time to time to produce charts, and the like, to show organizational arrangements which may be in practice or proposed. These charts naturally require the use of numerous vertical and horizontal lines which may be spaced regularly or irregularly, depending upon the size of the chart or the size of the paper on which the chart is produced. While it is possible to produce horizontal lines on the standard typewriters, there is no provision for the production of vertical lines. Moreover, if an attempt is made to produce such charts on the standard typewriters, making the horizontal lines with the proper key and filling in the vertical lines by hand, considerable time and labor is consumed, in addition to which an untidy or irregular chart results therefrom. My invention contemplates an attachment which may be quickly and readily applied to enable the typist or other operator to readily produce such charts on a typewriter without using the keys of the machine. The many difficulties heretofore encountered will therefore be fully overcome.

In describing my invention, I shall refer to the drawing in which similar reference characters designate corresponding parts throughout the several views and in which the numeral 1 designates a typewriter of the standard type in which is rotatably supported the usual platen 2 over which the paper 3 is guided. The ribbon spools are designated by the numeral 4 and in the drawing I have shown the bar 5 on the frame of the machine between the spools 4. In some machines, this bar 5 may be in the form of a shield, or the like, which not only shields the type but also shields the ribbon spools. It is immaterial, insofar as my invention is concerned, whether there is a bar or a shield present on the machine, as my invention will be applicable to use in connection with both designs or structures, so long as there is a support provided upon which a portion of my device may be applied. The pivoted fingers 6, which are used usually to hold cards and envelopes in position to be typed, are also clearly shown in the drawing, since said fingers form a necessary support for the essential feature of my invention.

This essential feature constitutes a guide for a marking device, such as a pencil, and in producing this element a strip of thin spring metal, or the like, 7 is provided. While metal has been

found to be most desirable, it may be that a form of plastic may be used to produce this strip, and I do not desire to be limited to any particular material. The strip has its ends bent around forwardly of the strip and downwardly thereof and portions thereof are curved inwardly toward the face of the strip to form the spring clips 8, as best shown in Figures 5 and 6 of the drawing. These spring clips 8 enable the strip to be frictionally engaged with the fingers 6 when the latter have been moved on their pivots to a vertical position, as clearly shown in Figure 3 of the drawing. When so clipped on these fingers, the strip is adapted to rest on the face of the platen 2, as clearly shown in Figures 1 and 4 of the drawing.

The strip 7 is bent outwardly intermediate of its ends at the points designated by the numeral 9 so as to form a center bulged portion 10 and this bulged portion is again bent at points designated by the numeral 11 so that the intermediate portion of the face of the bulged portion 10 will be flat, as best shown in Figure 6 of the drawing. In the center of the flat face of the bulged portion 10, I provide the orifice 12 through which is adapted to be projected the point of a pencil 13 or other similar marking device.

It is apparent that when the guide strip 7 is properly applied to the fingers 6, as shown in Figures 3 and 4, the point of a pencil may be projected through the orifice 12 to contact the paper 3 on the platen 2, and by moving the platen to the right or left, horizontal lines will be formed on the paper, and by turning the platen, either with the platen knob 14 or through the medium of the line space lever 15, vertical lines will be produced on the paper. In order that the operator may readily observe the lines being formed on the paper, I desire to provide the strip 7 with cut-out portions 16 on each side of the flat intermediate portion of the center bulged portion 10. These cut-out portions or openings may be of any size or shape, as desired, so long as they provide the medium to observe the markings being produced on the paper.

In making these markings on the paper through this guide strip 7, as above described, the pencil or other marking device could be held in the hand of the operator with the operator's wrist supported on the cross bar 5 of the frame of the machine or the pencil could be rested on said bar and held in position by the hand. I have, however, provided a supporting device for the pencil or other marker, so that the operator will find the operation as simple as possible in carrying out the purposes for which this invention is designed.

To this end, I provide a support comprising a body member 17, formed preferably of a plastic having a small amount of resiliency, the same being of any desired size and shape, although I have shown the same in the drawing to be of a length sufficient to support therein a pencil or similar marking device. This body member is slotted from the upper face thereof as shown at 18, the slot terminating within the body in a longitudinal bore 19, the latter being of a shape to snugly receive a pencil or other marking device which is hexagonal in cross section. The size of the bore and the resiliency of the plastic material are such as to frictionally grip and retain the pencil or other marking device fitted therein. Obviously, the slot 18 will permit the body to have such resiliency as may be needed to retain the pencil in position therein.

Molded in or otherwise secured to the base por-

tion of the body 17 is one arm of a spring metal clip 20. Under normal conditions, the spring metal of which the clip is formed is bent and shaped so that the clipping or biting portion thereof is inclined with respect to the base of the body 17, as illustrated in Figure 7 of the drawing. Thus, when the clip 20, carrying the body 17 is applied to the bar 5, as shown in Figure 2 of the drawing, it will be frictionally held in position to support the pencil substantially in line with the opening 12 in the guide strip 7. However, it requires but a slight pressure to spring the pencil to a position so that the point thereof may engage in and project through the opening 12, and the pressure of the clip, forcing the pointed end of the pencil downwardly, will cause the point of the pencil to be held frictionally under tension in the opening 12. Thus, it will only be necessary for the operator to slide the pencil forwardly in its support to cause the point to remain in contact with the paper, when operating the machine with this attachment to produce vertical and horizontal lines forming a chart, or the like.

In Figure 12, I have shown a sheet 21 with a plurality of vertical and horizontal lines formed thereon with the use of my invention aforementioned. These lines are connected in such a fashion as to provide what is generally known as an organizational chart, the latter being designated by the numeral 22. This is merely one result of the adaptation to use of my invention. Of course, various other designs may be produced with the use of my improved attachment.

In Figure 11 of the drawing, I have shown a slightly modified form of marking guide, wherein the strip 7' is provided with the end clips 8', similar to the preferred form hereabove described. The central portion of the strip is provided with the center orifice 12' but the strip is skeletonized by having the large cut-outs 16' on each side of the center portion 10', and said center portion is formed with further cut-out portions 23. This produces a lighter device and also greater amount of open space through which the operator may observe the markings on the paper. As aforesaid, the cut-out portions or the openings in the strip may be of any size or shape, as may be desired.

From the foregoing description of the construction of my improved attachment, the operation thereof and the method of applying same to use on a typewriter will be readily understood, and it will be seen that I have provided a comparatively simple, inexpensive and efficient means for carrying out the various objects of the invention.

While I have particularly described the elements best adapted to perform the functions set forth, it is apparent that various changes in form, proportion and in the minor details of construction may be resorted to, without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described my invention, what I claim is:

1. In a typewriter having a frame, a platen, and vertically disposed card guide fingers in front of the platen, a device for forming lines extending horizontally and longitudinally upon a sheet of paper in said typewriter comprising a guide formed from a strip of resilient material having end portions bent forwardly back upon themselves and forming bills engaged with said vertically disposed card-guide fingers and serv-

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ing to support the strip horizontally between the fingers, said strip being formed midway of its length with a forwardly bowed portion and with an orifice midway of the length of the said bowed portion, there being sight openings formed in the strip and extending longitudinally thereof in spaced relation to opposite sides of the orifice, an elongated marker having a pointed end, and a member detachably engaged with a portion of the frame of the typewriter in front of the platen and gripping and supporting the marker horizontally at right angles to the guide strip with the pointed end of the marker projecting rearwardly through the orifice in position for marking contact with a sheet of paper disposed about the platen.

2. A device for forming horizontally and vertically extending lines on a sheet of paper in a typewriter about the platen thereof, said device comprising an elongated resilient strip having attaching clips at opposite ends extending forwardly of the strip at a downward incline with lower ends projecting downwardly from the clip, said strip having between the clips a portion bowed forwardly and at its center formed with an orifice of a diameter adapting it to accommodate a pointed end of a marker, and the portion of said strip between said clips being formed with sight openings spaced from opposite sides of said orifice.

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3. The structure of claim 1 wherein the member for gripping and supporting the marker comprises a body of resilient material substantially triangular in cross section and having a flat undersurface, said body being formed with a longitudinally extending marker-receiving passage and with an upwardly extending slot constituting a throat for the passage, and a securing member formed of a resilient strip embedded in said body and having a portion protruding from an end of the body and bent back upon itself and forming a bill disposed under the body longitudinally thereof for detachably engaging the said portion of the frame of the typewriter.

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