June 6, 1950 H. R. McKINNEY 2,510,124

TRACING TABLE

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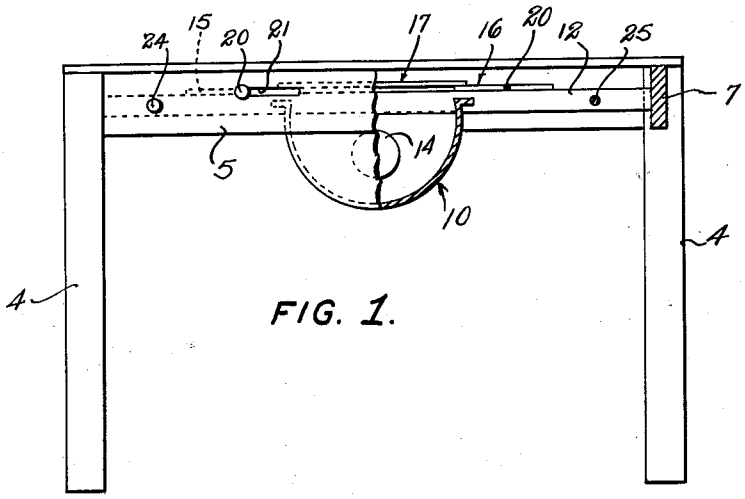


FIG. 1.

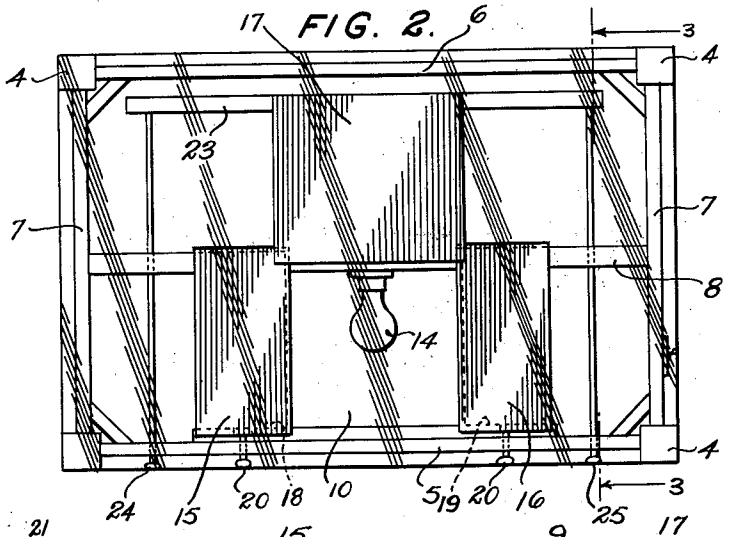


FIG. 2.

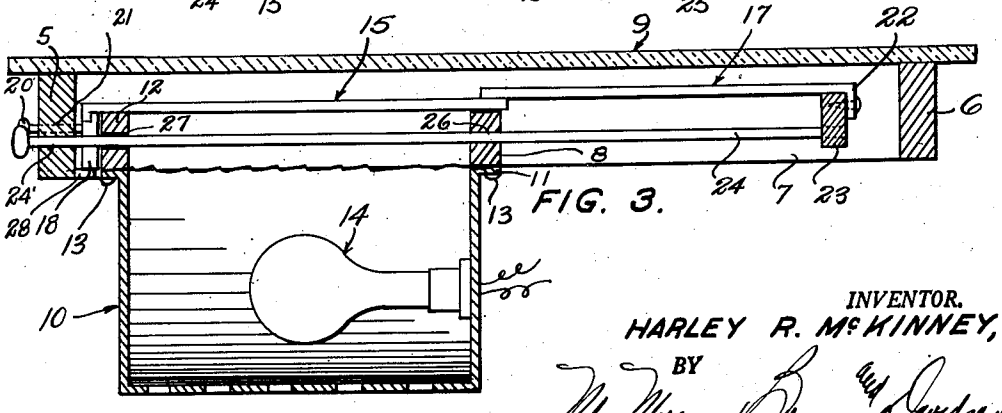


FIG. 3.

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TRACING TABLE

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4 Claims. (Cl. 45—131)

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My invention relates to improvements in apparatus for tracing operations involving the placing of translucent tracing paper in superimposed relation to a translucent object having a light source arranged therebehind to make the matter to be traced visible on the tracing paper, the primary object of my invention being to provide a tracing table having a top provided with a lighted transparency upon which the superimposed tracing paper and sheet containing the matter to be traced are to be laid, together with means for adjusting the area and shape of the transparency, whereby the tracing light may be confined more exactly to the matter to be traced.

Another important object of my invention is to provide tracing apparatus of the character indicated above which greatly facilitates the operation of tracing by enabling more exact and detailed tracings to be made more quickly and with less effort.

Another important object of my invention is to provide a tracing table of the character indicated above which is especially suitable for use by school children, for learning through tracing, the exact outlines of geometric and other figures and outlines, including writing.

Other important objects and advantages of my invention will be apparent from the following description and the accompanying drawings, wherein for illustrative purposes only, a preferred embodiment of my invention is set forth in detail.

In the drawings—

Figure 1 is an end elevation of said embodiment, partly broken away to show interior construction.

Figure 2 is a top plan view thereof.

Figure 3 is an enlarged substantially central vertical transverse sectional view taken therethrough.

Referring to the drawings in detail, the herein illustrated embodiment of my invention comprises a table frame including upright legs 4 at each corner, connected together at front and rear by upper longitudinal members 5 and 6, respectively, and at the opposite ends by upper transverse members 7, 7. The said members, as shown in Figure 2, are set inwardly with respect to the outer sides of the legs 4.

A bar 8, connected at its ends to the transverse members 7, 7, is spaced below the upper edges of the said members and extends along the longitudinal middle of the table frame.

The top 9 of the table which is of glass or other suitable transparent material, rests upon the tops of the legs 4 and upon the upper edges of the

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members 5, 6 and 7, 7 and may be secured thereon in any suitable manner.

The middle of the front portion of the table top has spacedly supported thereunder an elongated semi-cylindrical transversely arranged reflector 10, which has a flange 11 attached by suitable means 13 to the lower edge of the bar 8, and a similar forward longitudinal member 12 which is secured to and between the end members 7. A centralized electric lamp 14 mounted horizontally in the reflector is supported from back of the reflector, and provided with suitable connections (not shown) for plugging into an outlet socket.

For adjusting the size and shape of the lighted transparency provided by the area of the table top 9 illuminated by the lamp 14 and reflector 10, I have provided the two longitudinally shiftable opaque plates 15 and 16, respectively, and the single transversely movable opaque plate 17. These plates may be made of metal or of other suitably stiff opaque material which is heat resistant with respect to the heat generated by the lamp and deflector.

The plates 15 and 16 are transversely elongated and relatively narrow and have their front edges secured to blocks 18 and 19, respectively, located between the members 5 and 12, said blocks having forwardly projecting handles 20 which extend slidably through longitudinal slots 21 formed in the front longitudinal member 5, so that either or both of these slides can be moved to increase or decrease the width of the transparency or to shift the effective portion of the transparency to one side or the other. The rear edge portions of the plates 15 and 16 rest slidably on the top of the longitudinal member 8.

The plate 17, which is wider than the plates 15, and 16, has on its rear edge a flange 22 fixed to the back of a longitudinal bar 23 which has handle equipped rods 24 and 25 projecting forwardly from the ends thereof and extending through holes 24' and 27, formed in the front longitudinal table member 5 and cross member 12, respectively, outside the handles 20. The rods 24 and 25 are slidably supported also in holes 26 in the cross member 8, respectively, with the front part of the plate 17 slidably supported upon the plates 15 and 16. By pulling out or pushing in the rods 24, 25, the length or height of the aperture of the transparency defined by the inner edges of the plates 15 and 16 may be varied. It is obvious that the maximum area of the transparency in any case is subtended by the area of the open upper end of the re-

flector, which in the herein illustrated case is square in shape.

In using my tracing table, the sheet containing the material to be traced together with the thereon superimposed tracing paper are placed upon the table top 9 over the transparency and the slides or plates 15, 16 and/or 17 are then adjusted to confine the light from the lamp 14, to the size and shape of the said sheet, or to any selected portion thereof, whereby maximum tracing light is afforded upon the part to be traced, and no light is permitted to escape therearound to impair the tracing operation.

What I claim is:

1. Tracing apparatus comprising a table frame including a front upper member and end upper members, and legs depending therefrom, a translucent top mounted upon said members, front and rear bars spaced below said top and supported from said end members behind and parallel to said front member, a reflector including a lamp suspended from said bars to direct light upwardly through said table top and define a lighted tracing region thereon upon which a sheet containing the matter to be traced and a superimposed tracing sheet are to be laid, a pair of laterally movable opaque slides slidably mounted on said bars and shiftable toward and away from each other from opposite sides of said reflector so as to reduce the effective width of said tracing region of the table top, and a single transversely movable opaque slide supported by said bars and slidably overlying said pair of slides, said transversely movable slide being shiftable toward said front member to reduce the length or height of the tracing region as limited by the adjustment of said laterally shiftable slides.

2. Tracing apparatus comprising a table frame including a front upper member and end upper members, and legs depending therefrom, a translucent top mounted upon said members, a pair of bars spaced below said top and supported from said end members behind and parallel to said front member, a reflector including a lamp suspended from said bars to direct light upwardly through said table top and define a lighted tracing region thereon upon which a sheet containing the matter to be traced and a superimposed tracing sheet are to be laid, a pair of laterally movable opaque slides slidably mounted on said bars and shiftable toward and away from each other from opposite sides of said reflector so as to reduce the effective width of said tracing region of the table top, and a single transversely movable opaque slide supported from said bars between and slidably overlying said pair of slides, said transversely movable slide being shiftable toward said front member to reduce the length or height of the tracing region as limited by the adjustment of said laterally shiftable slides, blocks secured to depend from the front edges of said laterally movable slides between said front member and said bars and handles on said blocks slidably projecting through horizontal slots formed in said front member.

3. Tracing apparatus comprising a table frame including a front upper member and end upper members, and legs depending therefrom, a translucent top mounted upon said members, a pair of bars spaced below said top and supported from said end members behind and parallel to said front member, a reflector including a lamp suspended from said bars to direct light upwardly through said table top and define a lighted tracing region thereon upon which a sheet containing the matter to be traced and a superimposed tracing sheet are to be laid, a pair of laterally movable opaque slides slidably mounted on said bars and shiftable toward and away from each other from opposite sides of said reflector so as to reduce the effective width of said tracing region of the table top, and a single transversely movable opaque slide supported from said bars and slidably overlying said pair of slides, said transversely movable slide being shiftable toward said front member to reduce the length or height of the tracing region as limited by the adjustment of said laterally shiftable slides, said transversely movable slide having forwardly projecting rods slidable in openings formed in said pair of bars and in said front member.

4. Tracing apparatus comprising a table frame including a front upper member and end upper members, and legs depending therefrom, a translucent top mounted upon said members, a pair of bars spaced below said top and supported from said end members behind and parallel to said front member, a reflector including a lamp suspended from said bars to direct light upwardly through said table top and define a lighted tracing region thereon upon which a sheet containing the matter to be traced and a superimposed tracing sheet are to be laid, a pair of laterally movable opaque slides slidably mounted on said bars and shiftable toward and away from each other from opposite sides of said reflector so as to reduce the effective width of said tracing region of the table top, and a single transversely movable opaque slide supported from said bars and slidably overlying said pair of slides, said transversely movable slide being shiftable toward said front member to reduce the length or height of the tracing region as limited by the adjustment of said laterally shiftable slides, a longitudinal bar on said single slide having forwardly projecting rods slidable in openings formed in said pair of bars and in said front member.

HARLEY R. McKINNEY.

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