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H. LEE ET AL

2,414,110

TELEPHONE POSITION CHANGING INSTRUMENT

Filed May 4, 1944

2 Sheets-Sheet 1

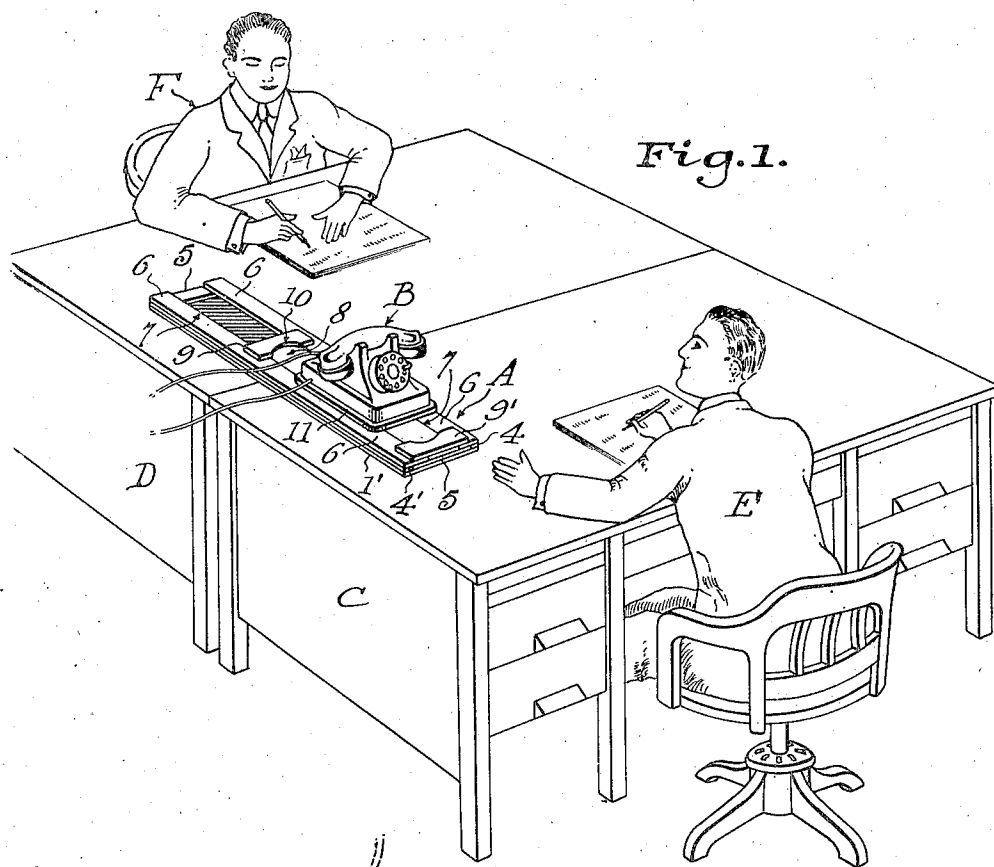
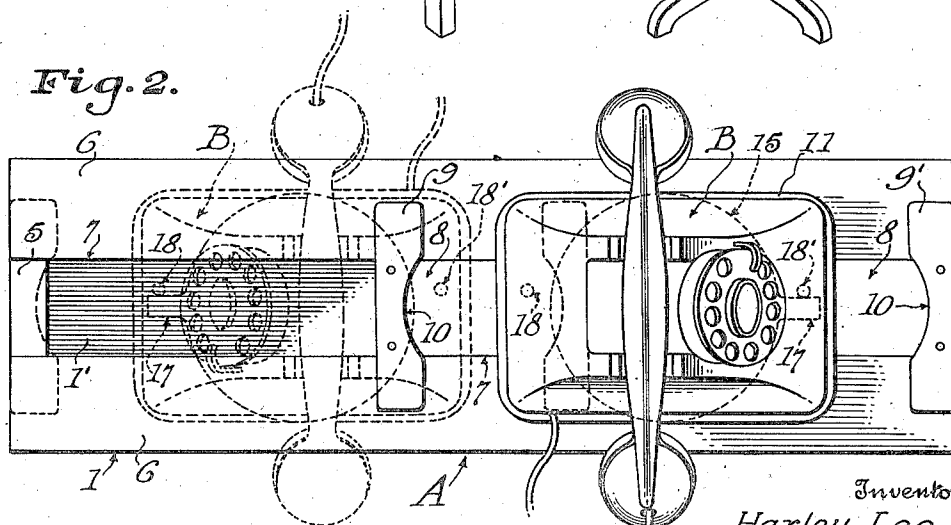


Fig. 2.



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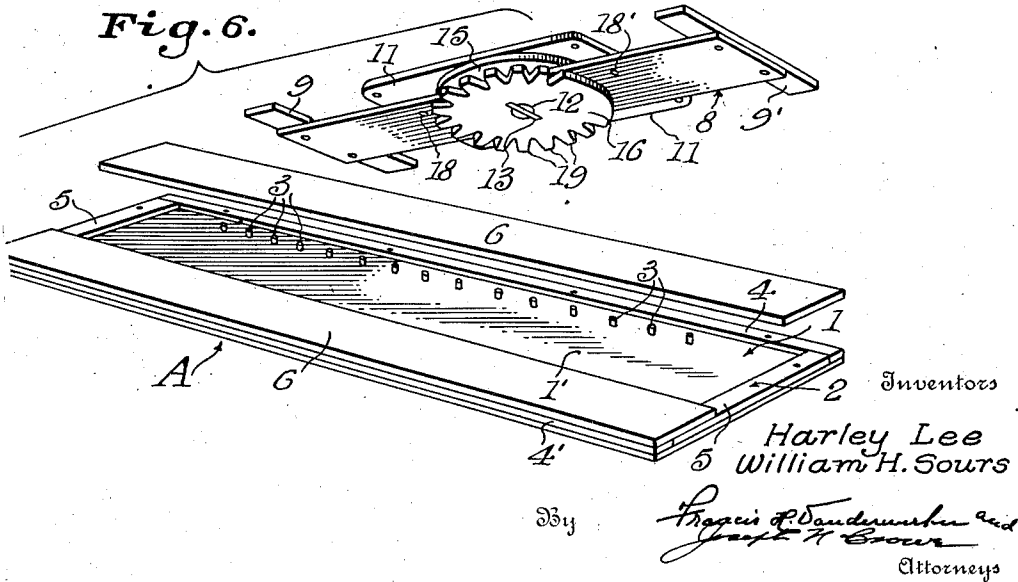
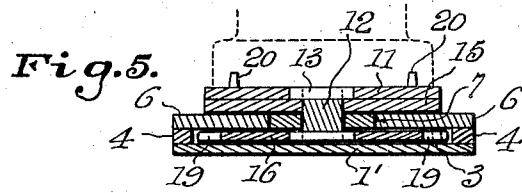
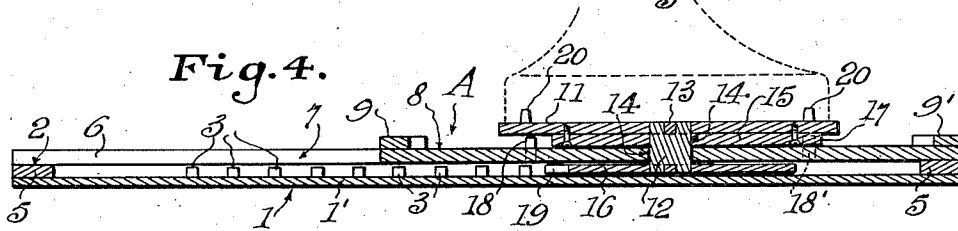
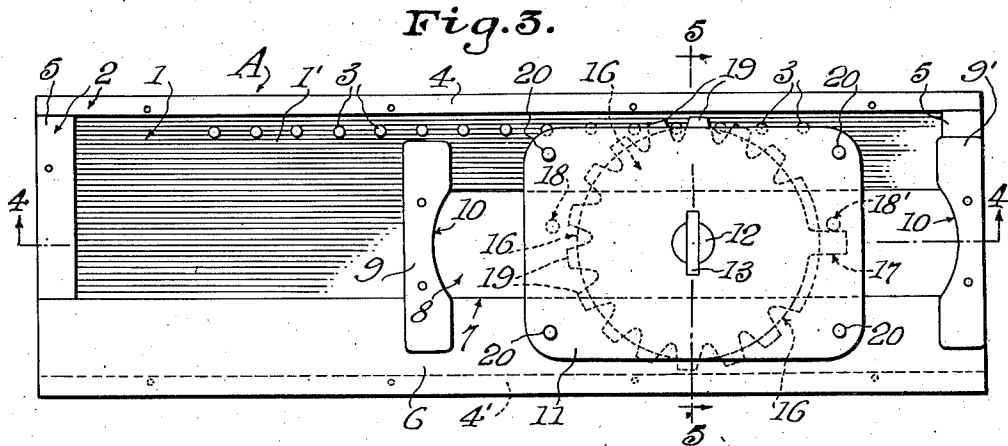
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TELEPHONE POSITION CHANGING INSTRUMENT

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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TELEPHONE POSITION CHANGING
INSTRUMENTHarley Lee, Knox, and William H. Sours,
Muncie, Ind.

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9 Claims. (Cl. 179-146)

(Granted under the act of March 3, 1883, as
amended April 30, 1928; 370 O. G. 757)

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The invention described herein may be manufactured and used by or for the Government for governmental purposes, without payment to us of any royalty thereon.

This invention relates to a telephone position changing instrument and the primary object thereof is to provide a device of this character adapted to support a telephone and manually operable to bring the telephone toward any person desiring to use the same and at the same time to arrange the telephone in proper position for use.

Another object of the invention is to provide a telephone position changing instrument which enables any one of a number of persons seated at adjoining desks on which there is only one telephone to readily obtain the use of the telephone without arising from the desks or disturbing the other persons sitting at the desks.

Another object of the invention is to provide a telephone position changing instrument which is simple in operation, inexpensive to manufacture, made of non-critical materials and not liable to become out of order.

Briefly stated the improved telephone position changing instrument comprises a base including an elongated bottom provided with vertically extending pins longitudinally arranged in spaced formation along and adjacent to one edge of said bottom, a rectangularly shaped frame mounted on said bottom, a pair of longitudinally extending parallel top plates mounted in spaced relation on said frame, said top plates providing a longitudinally extending guideway, an elongated support mounted for longitudinal movement in said guideway, a turntable rotatably mounted on the upper surface of said support and adapted to carry a telephone, a partially toothed disc fixedly connected to said turntable, said disc arranged beneath the support and top plates and adapted to engage said pins for rotating the turntable upon the actuation of the support longitudinally toward either end of the guideway, thereby changing the location and arrangement of the telephone for use by any one of a number of persons sitting at adjoining desks.

With the above and other objects and advantages in view the invention consists of certain features of construction and operation of parts which will hereinafter be described and shown in the accompanying drawings in which:

Fig. 1 is a perspective view showing the telephone position changing instrument provided on two desks facing each other, with the instrument having been actuated to place the tele-

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phone in correct position for use by one of the persons seated at one of the desks;

Fig. 2 is a top plan view of the instrument with the telephone shown in different positions, one of which is shown in dotted outline;

Fig. 3 is a top plan view of the instrument with the telephone and one top plate used in carrying out the invention removed therefrom;

Fig. 4 is a longitudinal sectional view taken on line 4-4 of Fig. 3;

Fig. 5 is a transverse sectional view taken on line 5-5 of Fig. 3; and

Fig. 6 is a perspective view of the elements comprising the invention separated from each other.

Referring more specifically to the drawings, the improved telephone position changing instrument indicated generally by A comprises a base 1 including a longitudinally extending rectangularly shaped bottom 1' having a rectangularly shaped frame 2 mounted thereon and provided with vertically extending pins 3, said frame 2 including longitudinally extending side members 4 and 4' and transversely extending end members 5, with one of the edges of the side and end members 4 and 4' and 5, respectively, being flush with the perimeter of the bottom 1'. The pins 3 are longitudinally arranged in spaced formation on the bottom 1' along and adjacent to the inner edge of the side member 4 of the frame 2 for a purpose which will hereinafter be disclosed. A pair of longitudinally extending top plates 6 are mounted on the frame 2 in spaced parallel relation, with the outer longitudinal edges of the top plates being flush with the outer longitudinal edges of the side members 4 and 4' of the frame 2. The top plates 6 provide a central longitudinally extending guideway 7 for a longitudinally extending support 8 having transversely extending bars 9 and 9' including finger engaging grooves 10 mounted on its outer ends.

A longitudinally extending turntable or telephone carrying member 11 is rotatably mounted on the upper surface of the support 8 at the center thereof by means of a short shaft 12 fixedly mounted at its upper end to the turntable 11 by a key 13 and extending vertically downward through apertures 14 formed in a bottom plate 15 of the turntable and the support 8. A partially toothed disc or wheel 16 is keyed to the lower end of the shaft 12. The turntable 11 is substantially rectangular in shape in order to conform to the shape of the bottom of a conventional dial telephone adapted to be

mounted thereon as illustrated in Figs. 1 and 2. The bottom plate 15 is substantially of the same width but does not have the same length as the turntable 11. A projection portion 17 is formed on the bottom plate 15 and extends outwardly from the bottom plate toward the middle of one end of the turntable 11. The projection portion 17 is adapted to abut against either one or the other of the stop members 18 and 18', which stop members 18 and 18' are in the form of vertically extending pins mounted in spaced relation on the support 8 adjacent to a longitudinal edge thereof. The partially toothed disc 16 is arranged beneath the top plates 6 of the base 1 and has a sufficient diameter to cause the teeth 19 thereon to engage between the pins 3 for a purpose which will hereinafter appear, and the support 8 has a width equal to the distance across the guideway 7 and is slidably supported therein by means of the bars 9 and 9' which have a sufficient length to slidably engage the upper surfaces of the top plates 6 after bridging the guideway 7. The support 8 is also of substantially the same thickness as the top plates 6 with the upper and lower surfaces of the support being flush with the upper and lower surfaces of the top plates. Vertically extending plugs 20 are suitably mounted on the turntable 11 adjacent to the corners thereof, for engaging in holes (not shown) normally provided in the bottom of a conventional desk telephone.

In operation, assuming that a conventional desk telephone B of the dial type has been mounted on the turntable 11 of the improved telephone position changing instrument A, with the instrument placed on dual desks C and D facing each other, as illustrated in Fig. 1, and that the instrument A has been operated by the person E sitting at desk C for causing telephone B to be in a correct position for use. Should the person F sitting at desk D desire to use the telephone he pulls on the bar 9 by engaging his fingers of one hand in the groove 10 whereby the support 8 is caused to move or slide in guideway 7 toward the end of the base 1 facing him, thus rotating disc 16 by means of the teeth 19 thereof engaging pins 3. Upon the support 8 being moved relative to the base 1 until one end thereof is flush with the outer edge of one of the end members 5 of frame 2, the partially toothed disc 16 will have given the turntable 11 and telephone B a half-turn or in other words will have rotated the turntable and telephone 180°, causing the projection portion 17 on bottom plate 15 to contact with stop member 18 thereby preventing turntable 11 from further rotation and arranging the telephone in proper position for use by the person F. Should the person E again decide to use the telephone he places one of his hands on the bar 9' with the fingers engaging the groove 10 thereon and then pulls the support 8 toward the other end of the base 1 facing him, thus causing teeth 19 on disc 16 to engage pins 3 and rotate the disc 15 in a reverse direction, which in turn rotates turntable 11 and telephone B until the projection portion 17 on bottom plate 15 of turntable 11 contacts with the stop member 18', whereby the telephone is again in position for use by the person E.

It will thus be seen that there has herein been provided a novel and efficient form of telephone position changing instrument which is well adapted for the purpose intended. Even though there has been herein shown and described certain features of construction and operation of parts, it is nevertheless to be understood that

various changes may be made therein if the changes do not depart from the spirit or scope of the claims.

Having thus described our invention, what we claim as new and wish to secure by Letters Patent is:

1. A device of the character described comprising a base, a support mounted for longitudinal movement relative to said base and an article carrying member connected to be automatically rotated simultaneously with the longitudinal movement of said support on said base, whereby an article carried by said member may be changed from one location to another location and simultaneously moved into a convenient position for use.

2. A device of the character described comprising a base, a guideway provided on said base, a support mounted for longitudinal movement in said guideway and an article carrying member connected to be automatically rotated simultaneously with the longitudinal movement of said support on said base, whereby an article carried by said member may be changed from one location to another location and simultaneously moved into a convenient position for use.

3. A device of the character described comprising a base, a support mounted for longitudinal movement relative to said base, an article carrying member rotatably mounted on said support and means for automatically rotating said article carrying member simultaneously with the longitudinal movement of said support on said base, whereby an article carried by said member may be changed from one location to another location and simultaneously moved into a convenient position for use.

4. A device of the character described comprising in combination, a base, a support mounted for longitudinal movement relative to said base, a telephone carrying member rotatably mounted on said support and means including a disc for rotating said member simultaneously with the longitudinal movement of said support on said base, whereby the telephone carried by said member may be changed from one location to another location and simultaneously moved into a convenient position for use.

5. A device of the character described comprising a base having disc engaging means mounted thereon, a support mounted for longitudinal movement relative to said base, a telephone carrying member rotatably mounted on said support, a disc engaging said means and connected to rotate said member simultaneously with the longitudinal movement of said support on said base, whereby the telephone carried by said member may be changed from one location to another location and simultaneously moved into a convenient position for use.

6. A device of the character described comprising a base, a support mounted for longitudinal movement relative to said base, a telephone carrying member rotatably mounted on said support, means for automatically rotating said member simultaneously with the longitudinal movement of said support on said base, whereby the telephone carried by said member may be changed from one location to another location and simultaneously moved into a convenient position for use, and means for limiting the movement of said support on said base.

7. A device of the character described comprising a longitudinally extending base having spaced pins provided thereon, a support mounted for

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longitudinal movement relative to said base, a telephone carrying member rotatably mounted on said support and means including a toothed disc engaging said pins for rotating said member simultaneously with the longitudinal movement of said support on said base, whereby the telephone carried by said member may be changed from one location to another location and simultaneously moved into a convenient position for use.

8. A device of the character described comprising a base, a support mounted for longitudinal movement relative to said base, a telephone carrying member rotatably mounted on said support, means for automatically rotating said member simultaneously with the longitudinal movement of said support on said base, said means including finger engaging elements on said support for moving it relative to said base to automatical-

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ly rotate said member whereby the telephone carried by said member may be changed from one location to another location and simultaneously moved into a convenient position for use.

9. A device of the character described comprising a base, longitudinally arranged pins mounted in spaced formation on said base, a support slidably mounted on said base, a telephone carrying member rotatably mounted on said support, a partially toothed disc connected to said member, said disc engaging said pins for actuating said member upon the movement of said support on said base, whereby the telephone carried by said member may be changed from one location and arrangement to another location and arrangement.

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