

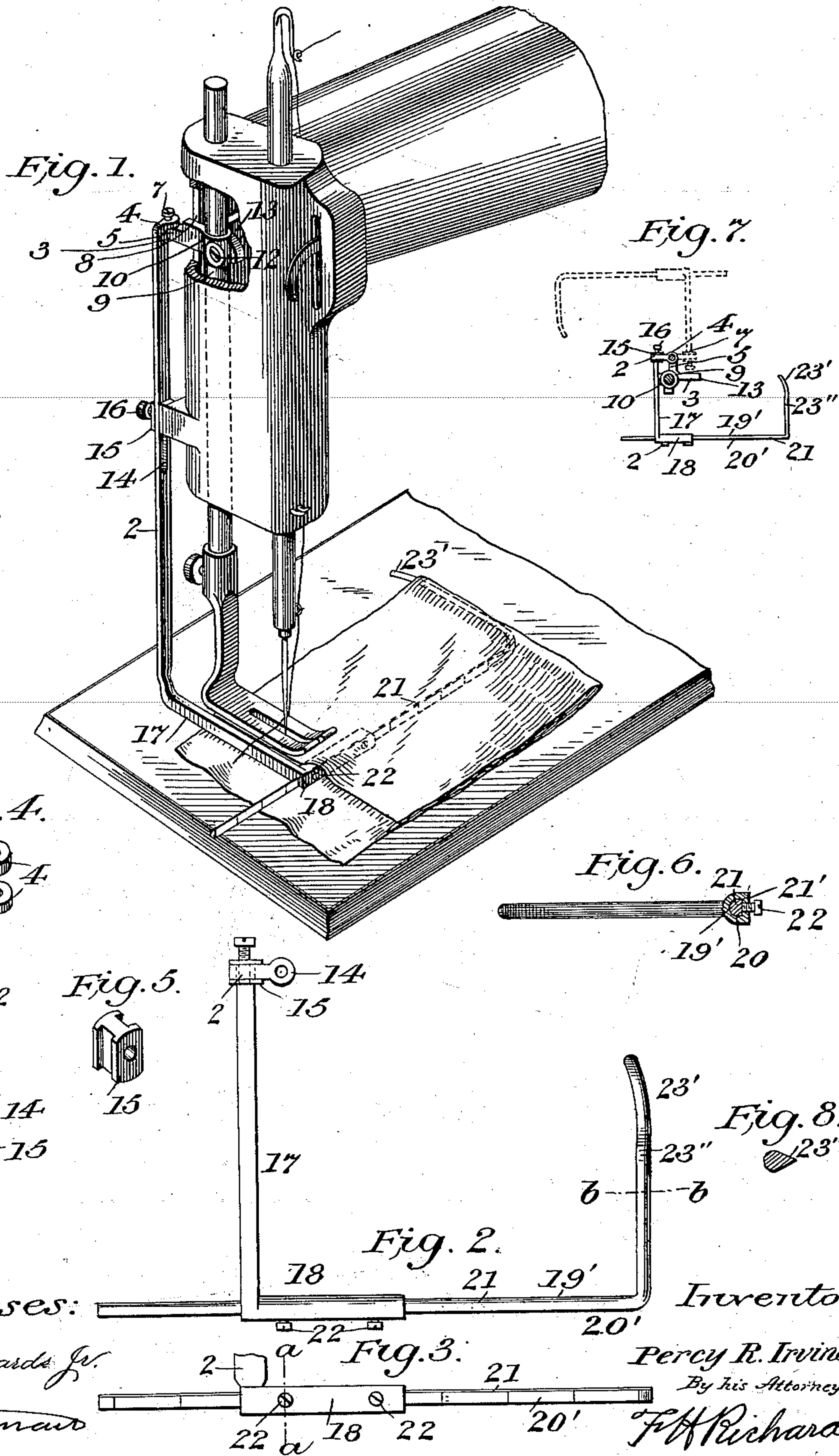
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P. R. IRVINE.
GUIDE FOR SEWING MACHINES.

(Application filed Nov. 29, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE

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GUIDE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 657,543, dated September 11, 1900.

Application filed November 29, 1899. Serial No. 738,694. (No model.)

To all whom it may concern:

Be it known that I, PERCY R. IRVINE, a citizen of the United States, residing in Port Chester, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Sewing-Machine Attachments, of which the following is a specification.

This invention relates to sewing-machine attachments, and more particularly to fold-gages, one object of the invention being to provide an improved device of this character which can be readily and quickly shifted from its operative or working position into an inoperative position without completely detaching the same from that part of the sewing-machine to which it may be secured and which also can be, when connected to the presser-foot bar, shifted therewith on the shifting of the presser-foot, thereby to raise the fold-gage out of engagement with the work.

A further object of the invention is to provide an improved fold-gage which can be readily and accurately adjusted to obtain various widths of hems, the construction thereof being such that the work will pass freely over the same and also be effectively creased.

In the drawings accompanying and forming part of this specification, Figure 1 is a perspective view of the head of a sewing-machine, having a part thereof broken away, showing this improved fold-gage in position. Fig. 2 is a top view of the fold-gage detached from such head. Fig. 3 is a view of the fold-gage bar or arm and the means for supporting the same, taken at right angles to Fig. 2. Fig. 4 is a perspective view of the fold-gage-supporting bar partly broken away. Fig. 5 is a perspective view of the block used herein to secure such supporting-bar in engagement with the sewing-machine head. Fig. 6 is a cross-sectional view taken in line *a a*, Fig. 3, looking toward the right. Fig. 7 illustrates in full lines the working position and in dotted lines the inoperative position of the fold-gage while in rigid engagement with the presser-foot bar, which is shown in section. Fig. 8 is a sectional view of the guide or gage arm, taken in line *b b*, Fig. 2.

Similar characters of reference designate like parts in all the figures of the drawings.

In using a fold-gage in sewing-machines it

is oftentimes desirable temporarily to dispense with such gage and sew portions of the work without the same, and to accomplish this object I have provided an improved fold-gage so connected with the sewing-machine that it can be quickly shifted from its working position into an inoperative position, or vice versa, without the necessity of detaching the same from the sewing-machine. Moreover, it is also desirable at times on the lifting of the presser-foot to also lift the gage out of engagement with the work, and to accomplish this result with facility I have provided an improved fold-gage which, while rigidly secured to the presser-foot bar for movement therewith, is also adjustable independently of such bar, so as to throw the same into an inoperative position without the necessity of detaching the gage from the sewing-machine. This improved fold-gage in the form herein shown and described and which may be its preferred form, if desired, comprises a supporting member or bar 2, jointed in some suitable way to a bracket 3, adapted to be secured to a part of the sewing-machine. In the present instance this supporting-bar 2 is provided with a pair of laterally-extending perforated ears 4, intermediate which the end 5 of a bracket 3 is pivoted by a suitable pivot, shown herein as a screw 7. This bracket 3 may be formed for attachment to some suitable part or member of a sewing-machine, and since it could be secured in some forms thereof by mere modification of details to the head or arm or to an operative part carried thereby it follows that the part or member to which it is attached need only be some suitable member in position and adapted for the purpose. In the present instance, however, it is shown projecting through a slot 8 in the head and connected with the presser-foot bar or member 9, being provided with an opening 10, through which said bar extends, such bracket being rigidly secured thereto by a suitable fastening device, such as a screw 12, and also having a projection or arm 13, adapted to project into a slot of or engage with some suitable fixture (not shown) of the sewing-machine head, whereby the rigid position of the bracket is insured, while also a positive torsional or rotary movement of the presser-foot bar is positively prevented. To

firmly maintain the fold-gage in its working position, the bar 2 is shown provided with a slot 14, in which a guide-block 15 is located. Through the block projects a suitable fastening device, such as a screw 16, adapted to enter a threaded opening formed at some suitable point on the sewing-machine head.

On the adjustment of the presser-foot, which is secured to the bar 9 and forms therewith the usual presser means by the usual means provided for this purpose, the fold-gage will be shifted with such foot to raise or lower the same relatively to the work, the supporting-bar sliding on the block 15, fixed to the head. This bar includes or is provided with a forwardly-projecting member or arm 17, extending in parallelism with the presser-foot, and which arm is provided with a sleeve 18, formed at right angles thereto. This sleeve is provided on its interior with a curved surface 19 and a flat surface 20, corresponding with the respective curved and flat surfaces of the fold-gage arm or bar, whereby torsional or rotary movement of such bar relatively to its sleeve or carrier is prevented.

The fold-gage bar or arm is shown comprising an adjustable member 21, having a flat and a curved surface 19' and 20', respectively, adjustably supported by the sleeve 18, being secured in the desired position by suitable set-screws 22, turned into the sleeve and engaging the flat surfaces of such bar. This bar 21 is provided with a suitable scale to accurately determine the desired adjustment thereof to form the required width of hem. The guide or fold-engaging arm 23 of the hemmer arm or bar 21 is shown formed at right angles to the arm 21 and is provided with a curved end 23' to facilitate the passage of the material over the bar, and with a beveled or squared outer or side face 23'', also adapted to facilitate the passage of the material or work and to insure the creasing of the hem.

In the use of this improved fold-gage the guide-arm 23 may be accurately adjusted relatively to the sleeve or carrier 18 by means of the scale to secure any desired width of hem, and when it is desired to raise the same out of engagement with the work this is readily accomplished by shifting the presser-foot in the usual manner, the fold-gage being raised therewith. When it is desirable to shift the fold-gage away from the work and into its inoperative position in order to facilitate the sewing of a portion of the work without the use of such gage, this is readily accomplished without the detachment of such gage, as heretofore, by merely releasing the supporting-bar 2 from the head and swinging the gage on its fixed bracket into the position shown by dotted lines in Fig. 7, whereupon the device is out of the way of the operator and this without the detachment of the same from the machine. When it is found necessary to adjust the fold-gage to compensate for va-

rious thicknesses of material, this may be accomplished by shifting the bracket on the presser-foot bar. By this improved organization it will be seen that the necessity of providing a fold-gage which can be completely detached from the machine in order temporarily to throw the same out of operation is obviated, while at the same time the necessity of providing different sizes of devices for different sizes of hems is also obviated.

In conclusion, I desire to state that the various details may be more or less modified without departing from the scope of this invention. For instance, such of the fastening devices or screws referred to herein which it is necessary to manipulate in order to secure the proper adjustment of the parts may be in the nature of thumb-screws, if desired.

While this improved fold-gage is adapted for use with various sewing-machines, it is particularly adapted for use with the Wheeler & Wilson machines, with which it can be used without any appreciable change in the construction of such machine.

Having described my invention, I claim—

1. The combination, with a sewing-machine head carrying presser means comprising a presser-foot and its bar, of a fold-gage connected with said presser means for swinging movement whereby said gage may be thrown into and out of its working position and away from the work, and means for detachably connecting said gage with said sewing-machine head, thereby to maintain said fold-gage in said working position.

2. The combination, with a sewing-machine head carrying a presser-foot bar, of a fold-gage adjustably secured thereto for adjustment thereon, for movement therewith, and for swinging movement independently thereof, whereby said gage may be swung out of its working position and away from the front of the machine; and means for detachably connecting said gage with said head thereby to maintain it in its working position.

3. The combination, with a sewing-machine head and with a presser-foot bar, of a fold-gage supported by said presser-foot bar for shiftable movement into and out of its working position, and means for detachably securing said gage to said head.

4. The combination, with a sewing-machine head member and with a presser-foot bar carried thereby, of a fold-gage member supported by said bar for swinging movement whereby it may be swung into and out of its working position, one of said members having a slot, and one of said members having means adapted to work in said slot for detachably securing said gage member to said head member, the organization being such that on the shifting of said presser-foot bar the gage member will be shifted therewith relative to said head member.

5. The combination, with a sewing-machine head and with a presser-foot bar supported thereby, of a slotted fold-gage supported by

said bar for swinging movement whereby it may be swung into and out of its working position, and means working in said slot for detachably securing said gage to said head, the organization being such that on the shifting of such presser-foot bar the gage, by means of its slot, can move with said bar relatively to said head.

6. The combination, with a fixed member and with a presser-foot bar of a sewing-machine, of a fold-gage comprising a bracket secured to said bar; a supporting-bar jointed to said bracket for shiftable movement independently thereof and having a guide-arm, whereby said guide-arm is shiftable into and out of engagement with the work; and means for securing said supporting-bar in engagement with said fixed member, thereby to maintain the guide-arm in its working position.

7. The combination, with a sewing-machine head and with a presser-foot bar mounted thereon, of a fold-gage comprising a bracket secured to said bar and having an arm in engagement with said head, a supporting-bar jointed to said bracket and having a guide-arm, whereby said arm is supported for swinging movement into and out of engagement with the work and means for maintaining said gage in its working position.

8. The combination, with a sewing-machine head and with a presser-foot bar mounted thereon, of a fold-gage comprising a bracket secured to said bar and having an arm in engagement with said head to prevent torsional or rotary movement of said presser-foot bar; a supporting-bar jointed to said bracket and having a guide-arm, whereby said arm is supported for swinging movement into and out of engagement with the work; and means for securing said supporting-bar in movable engagement with said head, thereby to maintain said guide-arm in its working position.

9. The combination, with a sewing-machine head and with a presser-foot bar mounted thereon, of a fold-gage comprising a bracket secured to said bar; a supporting-bar having a slot therein and a guide-arm and jointed to said bracket for swinging movement; and a guide-block for the slot of said bar and adapted to be secured to said head, whereby on the movement of said presser-foot bar the supporting-bar is movable therewith relatively to said guide-block.

10. The combination, with a sewing-machine head and with a presser-foot bar mounted thereon, of a fold-gage comprising a bracket secured to the said bar for movement therewith and adjustment thereon; a supporting-bar jointed to said bracket for swinging movement and having a slot therein; a guide-block carried by said bar and adapted to be rigidly secured to said head, whereby on the movement of said presser-foot bar the supporting-

bar is movable therewith relatively to said guide-block; and a guide-bar adjustably carried by said supporting-bar.

11. The combination, with a sewing-machine head and with a presser-foot bar mounted thereon, of a fold-gage comprising a bracket secured to said bar for movement therewith and adjustment thereon and having an arm in engagement with said head, a supporting-bar jointed to said bracket for swinging movement and having a slot therein; a guide-block carried by said bar and adapted to be rigidly secured to said head, whereby on the movement of said presser-foot bar the supporting-bar is movable therewith relatively to said guide-block; and a guide-bar adjustably carried by said supporting-bar, said guide-bar having a beveled guiding edge for the fold of the hem.

12. The combination, with a sewing-machine head and with a presser-foot bar carried thereby, of a fold-gage comprising a supporting-bar supported by said presser-foot bar for shiftable movement into and out of its working position, said fold-gage having a detachable connection with said head, and an adjustable guide-arm carried by said supporting-bar.

13. The combination, with a sewing-machine head and with a presser-foot bar mounted thereon, of a fold-gage comprising a bracket secured to said bar; a supporting-bar pivoted to said bracket; means for removably securing said supporting-bar to said head; and an arm adjustably carried by said supporting-bar.

14. A fold-gage comprising a bracket adapted for attachment to a movable member of a sewing-machine; a supporting-bar pivoted to said bracket for swinging movement relatively thereto, and carrying means adapted to detachably secure said bar to a fixed member of a sewing-machine; and an adjustable guide-arm carried by said supporting-arm.

15. A fold-gage comprising a bracket adapted for attachment to a movable member of a sewing-machine, and a supporting-bar having a guide-arm and jointed to said bracket for swinging movement and having a slot for the reception of means whereby said bar may be detachably secured to a fixed member of a sewing-machine.

16. A fold-gage comprising a supporting-bar carrying means for shiftablely attaching it to a fixed member and means for supporting it on a movable member of a sewing-machine, and a guide-arm carried by said supporting-arm.

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