Aug. 19, 1941. H. SANTREY 2,252,816

TOOL FOR APPLYING WINDOW SASH SPRINGS

Filed Oct. 12, 1940

FIG. 1

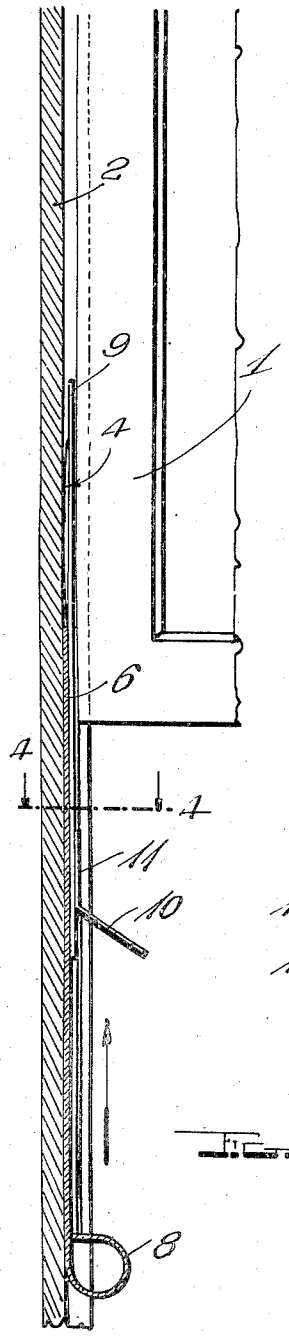


FIG. 2

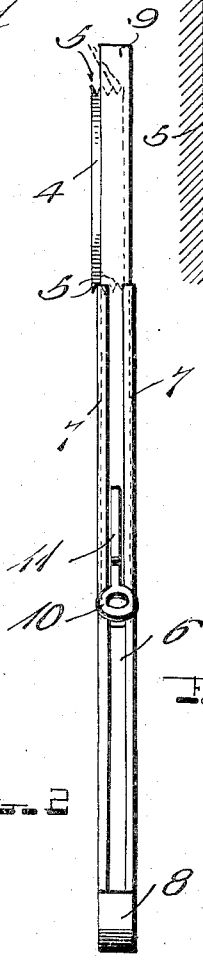


FIG. 3

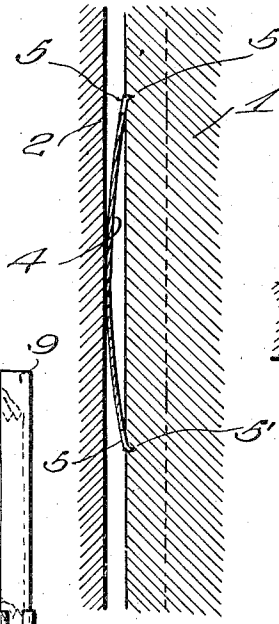


FIG. 4

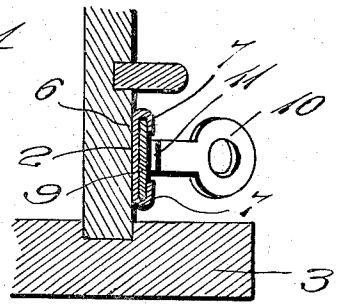


FIG. 5

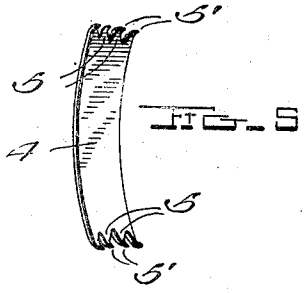


FIG. 6

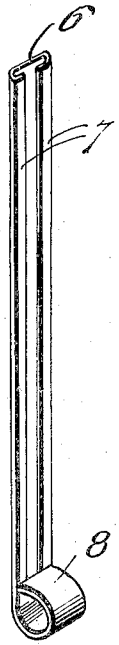
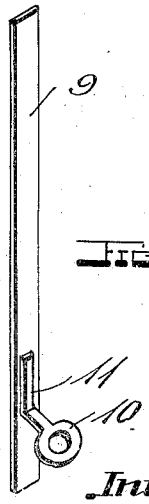


FIG. 7



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TOOL FOR APPLYING WINDOW SASH SPRINGS

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Application October 12, 1940, Serial No. 360,976

1 Claim. (Cl. 29—84)

This invention relates to a tool for applying springs to a window sash at opposite sides thereof between edge faces of the sash and confronting faces of tracks along opposite sides of a window frame in which the sash is mounted for vertical sliding movement.

When a sash is shifted in a window frame to a raised or lowered position, it often happens that pressure applied to the sash to move it will cause the sash to be tilted in the frame and side edge portion of the sash will become caught in the tracks and such binding engagement created that it will be difficult and often impossible to move the sash without first restoring it to its initial position in the frame to true it and then applying pressure at two points or at its center to move the sash in the desired direction.

In order to overcome this objection springs are employed which are applied to side edge faces of the sash and extend longitudinally thereof, the springs being in the form of resilient strips bowed longitudinally with their ends in biting engagement with the sash and their intermediate portions bearing against the tracks. These springs serve to maintain the side edge faces of the sash in slightly spaced parallel relation to confronting faces of the tracks and the sash will be prevented from tilting and binding in the frame during raising or lowering of the sash. Therefore, the sash may be easily shifted vertically in the frame to raised or lowered position and if the sash cords should be broken, frictional grip of the springs with faces of the tracks will hold the sash and prevent it from dropping in the frame and mashing a person's hand or fingers.

In order to apply the springs to a window sash they must be thust into place between the tracks and side edge faces of the sash to predetermined positions in which they extend vertically with their ends in biting engagement with the sash. This has been found difficult to accomplish without removing the sash from the frame and it is, therefore, one object of the invention to provide a tool by means of which the springs may be easily thrust into place between the tracks and the sash and left in place when the tool is withdrawn.

Another object of the invention is to so form the tool that, when it is thrust upwardly between a sash track and the confronting side edge face of a sash, the spring, which is formed from a thin strip of resilient sheet metal, will be carried upwardly with it and then left in place when the tool is shifted downwardly out of place.

Another object of the invention is to provide a tool of this character consisting of an elongated body or carrier in which is slidably mounted a sheet metal strip or shield adapted to be shifted longitudinally of the carrier so that it may be moved to an extended position in which a side face of the shield may be engaged by teeth at ends of a spring and thus prevent the teeth from digging into the edge face of the sash and preventing the spring from being slid longitudinally to the desired position.

Another object of the invention is to so form the tool that teeth at the lower end of a spring may be engaged between the extended shield and the upper extremity of the carrier and thus allow the carrier to have abutting engagement with the lower end of the spring and move the spring upwardly with it as the tool is thrust upwardly between the sash and the window frame.

Another object of the invention is to provide a spring applying tool which is simple in construction and capable of being formed entirely of sheet metal and thus cheaply manufactured.

This invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a view illustrating the manner in which a spring is applied with the improved tool.

Fig. 2 is a front elevation of the tool with a spring applied thereto.

Fig. 3 is a fragmentary sectional view showing a spring in place between a window sash and the sash track of a window frame after being applied with the improved tool.

Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 1.

Fig. 5 is a perspective view of the spring.

Fig. 6 is a perspective view of the body portion of the tool.

Fig. 7 is a perspective view of the strip or shield slidably carried by the body.

This improved tool is used for applying springs to a window sash 1 between side edge faces of the sash and confronting faces of the sash tracks 2 of a window frame 3 where they will hold the sash true and prevent the sash from tilting transversely of the tracks and sticking in the frame. It is to be understood that the springs will be applied at opposite sides of the sash and may be located at any point desired intermediate the upper and lower ends of a sash. The springs 4 are of duplicate construction and each consists of a thin strip of resilient sheet metal which is curved longitudinally and has its ends serrated to form a suitable number of teeth 5. The teeth have their ends bent to form spurs 5'. The springs may be of any length and width desired

and curved or bowed for their full length so that, when applied, their teeth will have biting engagement with side edges faces of the sash and their intermediate portions bear against confronting faces of the sash tracks, as shown in Fig. 3. Therefore, the springs will be held firmly in engagement with the sash and move therewith along the sash tracks in frictional engagement with it when a sash is opened or closed. The springs hold the sash spaced slightly from the tracks and prevent the sash from being tilted in the frame during opening or closing movement. Therefore, the sash will not catch and become wedged in the frame.

The tool is constructed, as shown clearly in Figs. 5, 6, and 7, and referring to these figures, it will be seen that it consists of a body or carrier 6 which is preferably formed of stiff sheet metal and has its side edge portions folded inwardly to form flanges 7 extending the full length of the carrier. The lower end portion of the strip or blank from which the carrier is formed is rolled to form a finger-hold 8 by means of which the carrier is grasped during use of the tool. A shield 9, which is also formed of thin sheet metal and is preferably resilient, is slidably carried by the body or carrier 6 with its side edge portions overlapped by the flanges 7. A handle 10 formed of stiff metal, is carried by the shield adjacent its lower end and has its shank 11 bent so that when the shank is brazed or otherwise secured to the shield the handle will project therefrom, as shown in Figs. 1 and 4, and may be easily grasped when shifting the shield longitudinally of the carrier.

When the tool is in use to apply springs to a window, the shield 9 is shifted upwardly to extended position and a spring applied against a side face of the shield, as shown in Fig. 2. It should be noted that the spring has a side edge portion projecting laterally from the extended end portion of the shield and that the teeth at the lower end of the spring fit between the rear face of the shield and the upper end of the carrier, one tooth being disposed outwardly from the adjacent side edge of the carrier. The carrier is then disposed against the surface of the track 2, under the raised sash 1, with the spring also bearing against the surface of the track and the extreme upper end portion of the shield, which extends beyond the upper end of the spring, engaged between the track and the confronting side edge face of the sash. The tool is then thrust upwardly between the sash and the track and, since the upper end of the carrier or body 6 has abutting engagement with the lower end of the spring, the spring will be carried upwardly with it. After the tool has been thrust upwardly as far as the operator deems necessary, the shield 9 is shifted downwardly by means of its handle 10 to retracted position within the carrier and the resiliency of the spring will cause the spurs 5' of the teeth 5 to be forced into the wood of the sash and its intermediate portion to have close contacting engagement with the face of the track 2. The entire tool is then withdrawn and the spring will remain in place between the sash and the confronting wall of the track. Since the springs will be under tension, their resiliency will hold the spurs of the teeth embedded in the sash and the springs will maintain the sash in spaced relation to inner walls of the tracks so that said sash will slide easily and is prevented from canting and becoming caught in the frame.

Having thus described the invention, what is claimed is:

An applying tool for a window sash spring comprising an elongated body having side flanges, the lower end of the body being provided with a finger hold, an elongated strip slidably carried by said body and engaged under the side flanges thereof, and a handle carried by the lower end portion of the strip and projecting outwardly therefrom between the flanges of the body in position to be grasped and employed as means for shifting the strip from a retracted position within the body to extended position in which it projects from the upper end of the body.

HENRY SANTREY.