July 22, 1941. N. G. HORWITT 2,250,263

EXTENSIBLE SUPPORT FOR PICTURES

Filed Jan. 20, 1938 2 Sheets-Sheet 1

Fig. 1

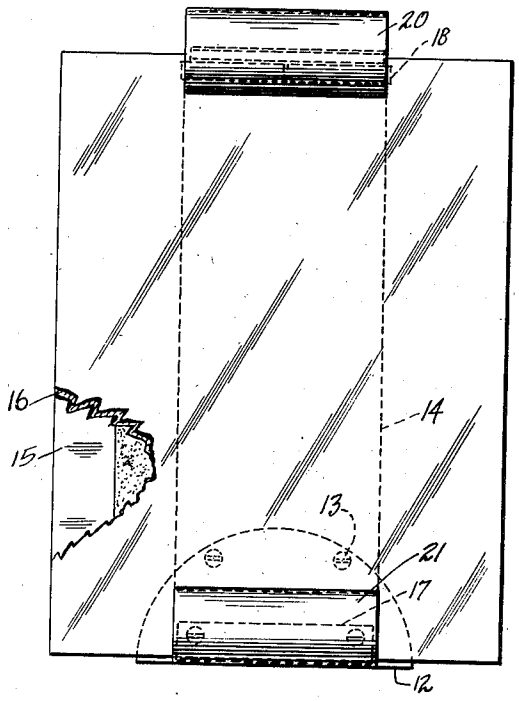


Fig. 2

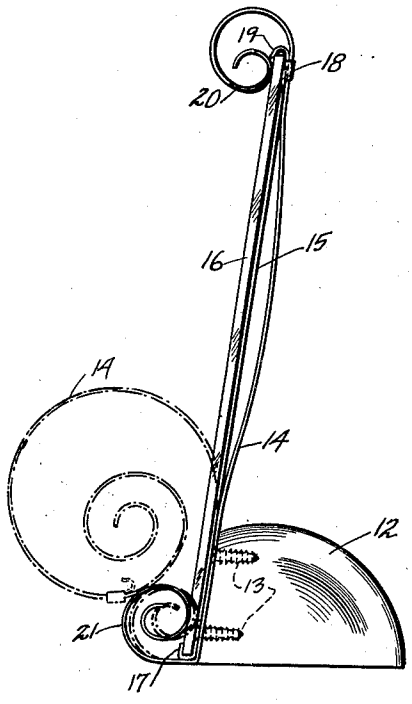


Fig. 3

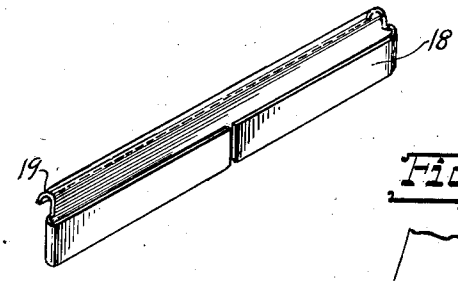


Fig. 4

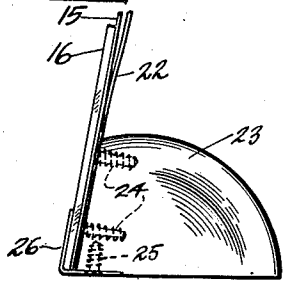
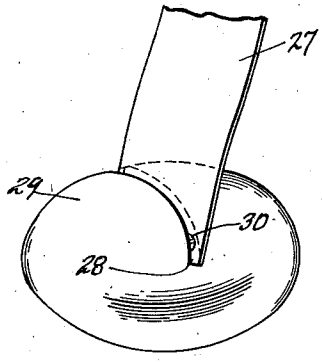


Fig. 5



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Fig. 6

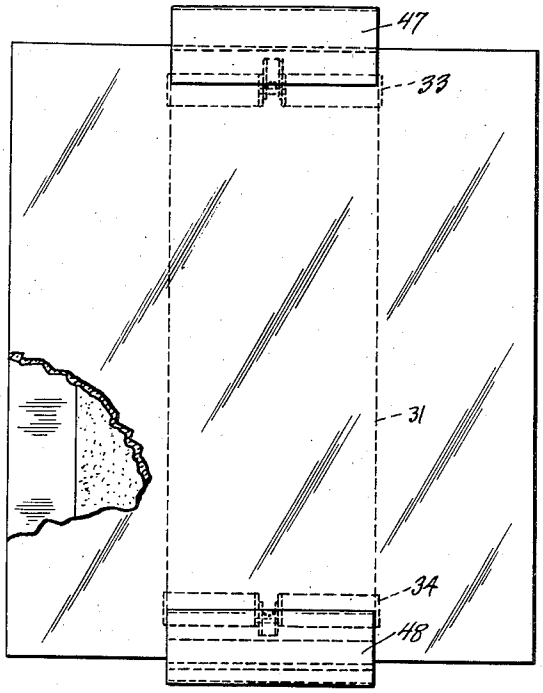


Fig. 7

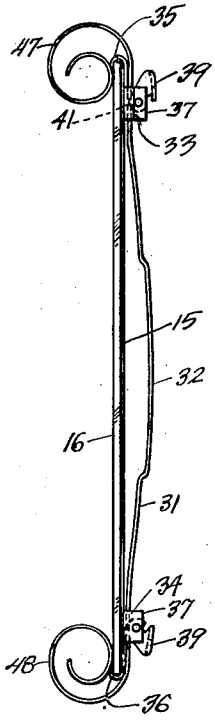


Fig. 8

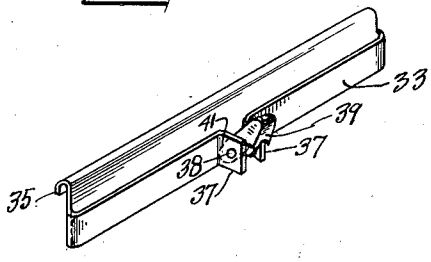


Fig. 9

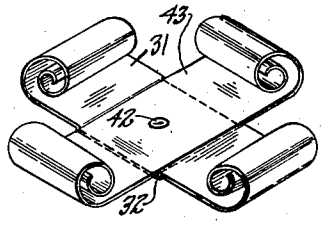


Fig. 10

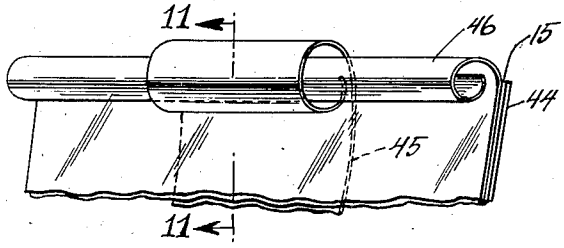
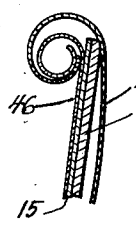


Fig. 11



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UNITED STATES PATENT OFFICE

2,250,263

EXTENSIBLE SUPPORT FOR PICTURES

Nathan George Horwitt, New York, N. Y.

Application January 20, 1938, Serial No. 185,803

12 Claims. (Cl. 40—152.1)

This invention relates to an extensible support or mounting for pictures or the like. It consists essentially of a flexible resilient strip of material, preferably spring metal, which will normally coil up on itself in a scroll, either from one or both ends. Where the picture itself is not stiff enough, a stiffening sheet of glass, fiber board or the like is used to hold the strip in extended position against its tendency to coil. The strip will coil up against the edge or edges of said sheet. In one form of support, the coiling strip is mounted on a base near its lower end. In another form, the strip is provided with means for hanging it on a wall. Still another form, has in addition to a stiffening member, a flexible resilient sheet of transparent material coiling up inside the strip and in front of the picture, the stiffening member being used behind the picture. An advantage of my support is that when not in use, it will coil up on itself, so that it will occupy a small space making it easy for packing and shipping. A further advantage is its ease of adjustment to suit various size pictures. Another advantage is its simplicity, requiring but few parts.

Other objects and advantages will become apparent upon a further study of the description and drawings, in which—

Fig. 1 is a front elevation of one type of holder with a glass and picture shown supported therein, a portion of the glass being broken away.

Fig. 2 is a side elevation of the holder of Fig. 1.

Fig. 3 is an enlarged perspective view of the movable clip, of Fig. 2 by itself.

Fig. 4 is an elevation of a modified form of base with only a part of the upstanding portion of the flexible resilient strip, a portion of a glass and picture being shown supported.

Fig. 5 is a perspective view of a modified form of base with only a part of the upstanding portion of the flexible resilient strip.

Fig. 6 is a front elevation of a hanging type of support with a glass and picture shown supported therein, a portion of the glass being broken away.

Fig. 7 is a side elevation of the support of Fig. 6.

Fig. 8 is an enlarged perspective view of the movable clip of Fig. 7 by itself.

Fig. 9 is a reduced perspective view of a type of holder having two crossed springs, the clips being omitted and the springs being shown in partially uncoiled condition.

Fig. 10 is a perspective view of the upper portion of a modified form using a flexible resilient transparent cover or plate for the picture, and

Fig. 11 is a partial section taken along the line 11—11 of Fig. 10.

The picture holder of Figs. 1, 2 and 3 comprises a base 12 to which is fastened, by screws 13, a strip of spring metal 14. Spring metal is preferred but other flexible resilient material may be used. A channel 17 is held to the front of strip 14 at the bottom of base 12 by lower screws 13 which pass through both said channel and the strip. Screws 13 and channel 17 hold strip 14 flat at its portion in contact with the front of base 12. A clip 18, having a hooked front upper portion 19 is slidably mounted on strip 14 above base 12. Strip 14 is so treated that normally it will coil up upon itself from both ends as shown in dot and dash lines in Fig. 2. In supporting a picture 15 with a sheet of glass 16 in front of it, strip 14 is held in uncoiled condition, the upper edge of glass 16 being engaged by hook 19, clip 18 being adjusted on strip 14 by hand. Strip 14 at and beyond clip 18 will coil forward and downward upon itself, causing clip 18 to bind on said strip. Said coiling will also cause hook 19 to press down on the top of glass 16, the forward and bottom edge of said hook at the same time pressing said glass backward against the body of clip 18, exerting a pinching action on said glass and on picture 15. This pinching action is supplemented by the pressure backward of upper coil or scroll 20. A pinching action is exerted at the bottom between bottom scroll 21 and the forward face of strip 14.

Fig. 4 shows a modified form of holder. The upper portion of the modified form is the same as that of the holder of Figs. 1, 2 and 3, but instead of using a bottom scroll 21 and channel 17, the bottom of strip 22 terminates near the bottom of base 23. Screws 24 hold strip 22 to the front of base 23. Screws 25, only one of which is shown, hold a bent strip 26 to base 23, the upstanding leg of said latter strip being held in spaced relation to the front face of the base forward of the latter. The lower edge of strip 22 tending to curl forward below bottom screws 24, will pinch glass 16 and picture 15 against the upstanding leg of strip 26. In effect said upstanding leg together with the lower portion of strip 22 and the front face of base 23 provide a channel support for the bottom of glass 16 and picture 15.

Fig. 5 shows a modified form of holder. The upper portion of this modified form is the same as that of the holder of Figs. 1, 2 and 3, but instead of using a bottom scroll 21 and a channel

17, the bottom of strip 27 extends down into a slot 28 provided in base 29. Strip 27 is fastened to base 29 at one side of slot 28 by means of screws the head of one being shown at 30. In using the holder of Fig. 5, the bottom of a glass and picture are inserted in slot 28, while their upper portions are supported as in Figs. 1 and 2.

The form of holder in Figs. 6, 7 and 8 is adapted to be hung from a nail, hook or the like projecting from a vertical surface, such as a wall. Spring metal strip 31 is so treated that normally it will coil up upon itself from both ends giving rise to upper scroll 47 and lower scroll 48. A depression 32 is provided near the middle of strip 31. The purpose of said depression will be explained hereafter. An upper clip 33 and a lower clip 34 are slidably mounted on strip 31. Upper clip 33 has a forwardly and downwardly extending hook 35, while lower clip 34 has a forwardly and upwardly extending hook 36. The ends of the clips in the rear terminate in rearwardly extending ears 37. A pin 38 extends between each pair of ears 37 and holds them against spreading, the ends of the pins being peened over. Mounted on each pin 38 is a hook 39. Hook 39 of upper clip 33 is adapted to be caught on a nail for hanging the holder. The bottom rear of each hook 39 is formed as a cam with a bulge at 41. The weight of the holder with hook 39 of clip 33 caught on a nail, causes said hook to tend to rotate counter-clockwise, causing bulge 41 to bind on the rear of strip 31 and tightening clip 33 thereon. By manually turning hook 39 of clip 34 in a clockwise direction, said latter clip has its body portion tightened on strip 31. Clip 34 is provided with a hook 39, the same as clip 33, so that the frame is reversible, that is it makes no difference how the picture is inserted. Further, to facilitate quantity production, all clips are made alike, thereby avoiding any special selection of clips in assembling and extra tools in making.

In inserting glass 16 and picture 15 in the holder of Figs. 6 and 7, strip 31 is uncoiled against its resilience, and clip 33 is moved into position so that hook 35 will engage the top of glass 16 and picture 15. In a similar manner clip 34 is moved so that hook 36 will engage the bottom of glass 16 and picture 15. Hooks 39 are then turned to bind clips 33 and 34 on strip 31. As explained in connection with Fig. 2, the coiling of strip 31 at and beyond the clips also binds the latter to said strip.

Fig. 9 shows a holder with a pair of coiling strips mounted at right angles upon each other. A strip 31 is the same as that of Fig. 7, having the depression 32 into which is fastened by means of rivet 42, another strip 43. Strip 43 is the same as strip 31, except that the former is without depression 32. No clips 33 and 34 are shown on strip 31, Fig. 9, but it is readily understood that they may be mounted thereon as shown in Fig. 7. Strip 43 is shown without clips and may be used in this manner, the scrolls at its ends serving to pinch a glass and picture mounted thereon. If desired, either clips such as clip 18, Fig. 3 or clips such as clips 33 and 34, Figs. 7 and 8, may be used on strip 43. Strips 31 and 43, in Fig. 9, may be treated so that they will normally tend to coil completely up from both ends upon themselves. Actually, cross strip 43 will prevent strip 31 from completely coiling up. With the strips so treated to coil in order for them to be in the position shown in Fig. 9, they would have to be held down on a flat surface and their ends restrained from coiling up. In another embodiment of my invention, strips 31 and 43 are treated so that they normally are flat for their intermediate portions, as shown in Fig. 9, only their ends having the coiling bias. Similarly strip 14, Fig. 2, could be treated so that a portion above base 12 would normally always remain flat. The same holds true for the strips of the other modified forms described herein.

Figs. 10 and 11 illustrate another form of my invention in which the stiffening member instead of being a glass in front of the picture, may be of glass or other stiff material behind the picture 15. In this form, the stiffening member 44 need not be transparent, hence it is preferably made of a less brittle material than glass, such as wood or fiber board. Only the upper portion of coiling strip 45 is shown, the rest of the construction being any of the types illustrated. A unique added feature of this form, is the use of a flexible resilient transparent sheet 46 in front of the picture. Sheet or plate 46 is preferably normally coiled as is strip 45. Said sheet may be of one of the well known flexible transparent cellulose products such as "Cellophane." Sheet 46 is set inside of strip 45 so that it coils up with the latter. Stiffening member 44 is set inside and adjacent to strip 45 and behind plate 46. Picture 15 is placed on front of member 44 and sheet 46 which is of greater length than said member is placed in front of the picture to coil up with strip 45. Clips such as clips 18 and 33 may or may not be used with this form. They are preferably omitted.

Where the picture itself is formed of a stiff sheet of material it may be used in the flexible spring strip without an added stiff sheet, such as a sheet of glass in front of it as in Fig. 2 or a sheet of fiber board or the like behind it as in Fig. 11.

The term sheet of stiff material as used in the claims is intended to mean a sheet of stiff material like glass or fiber board or mounting of the picture itself where the latter is upon material stiff enough to withstand the pressure exerted by the spring strip.

I claim:

1. A support for pictures or the like in conjunction with a sheet of stiff material having a base adapted to rest on a horizontal supporting surface, an elongated strip of flexible spring material normally coiled in a scroll at its upper portion, said strip being secured near its lower end to said base, said scroll being capable of being considerably unwound against its resilience without permanent set by movement thereof upward from said base and means substantially at the strip and near its lower end for engaging the bottom end of said sheet, said sheet when inserted in said support requiring unwinding of the scroll, said sheet when so inserted being engaged by said means at its bottom end while its upper end comes adjacent said scroll and is subjected to downward pressure therefrom when the strip is released for coiling.

2. A support for pictures or the like in conjunction with a sheet of stiff material comprising an elongated strip of flexible spring material normally coiling in a scroll from one end, said scroll being capable of being considerably unwound against its resilience without permanent set by movement thereof toward said end, means near the other end of said strip for gripping said sheet at one end, and a clip mounted on the strip and slidable thereon where the latter is uncoiled but

binding thereon where coiled, said clip being adapted for gripping the opposite end of said sheet, said sheet being mounted in said support by being gripped by said means at one end, the clip being set along the strip at the scroll to grip the opposite end of the sheet, said setting of the clip requiring unwinding of the scroll, said scroll normally rewinding when released causing thereby said clip to exert pressure against said latter end of the sheet in a direction toward said means.

3. A support for pictures or the like in conjunction with a sheet of stiff material comprising a strip of flexible spring material normally coiled forward in a scroll at at least one end, said scroll being capable of being considerably unwound against its resilience without permanent set by movement thereof toward said end, and a clip mounted on said strip and slidable thereon where the latter is uncoiled but binding thereon where coiled, said clip being adapted to set over an end of said sheet, the mounting of said sheet in said support requiring the setting of an end of the sheet in the clip, the unwinding of the scroll and the setting of the clip at the scroll, the tendency of the strip to coil where the clip is set, binding the clip thereon when the strip is released for coiling and causing the latter to exert pressure against said end of the sheet.

4. A support for pictures or the like in conjunction with a sheet of stiff material comprising a length of flexible spring material normally coiled at its ends in oppositely disposed scrolls, each scroll being capable of being considerably unwound against its resilience without permanent set by movement thereof away from the other scroll, and a pair of clips mounted on said length and slidable thereon where the length is uncoiled but binding thereon where coiled, said clips being adapted to engage the opposite ends of said sheet, said sheet being inserted in said support by engaging opposite ends in the clips, unwinding the scrolls to accommodate its length, a clip being set adjacent each scroll, the tendency of the length to coil, where the clips are set, binding the clips thereon when the strip is released for coiling and subjecting the sheet to endwise compression between the clips.

5. A support for pictures or the like in conjunction with a sheet of stiff material comprising a strip of flexible spring material normally coiled in a scroll at at least one end, said scroll being capable of being considerably unwound against its resilience without permanent set by movement thereof toward said end, and a clip slidably mounted on the strip and adapted to engage the end of said sheet, said sheet being mounted in said support by engaging an end by the clip, setting the clip inside the scroll to suit the end of the sheet, the tendency of the strip to coil subjecting said sheet when the strip is released for coiling to endwise pressure by the clip in a direction away from said end and to pinching between a convex face of the scroll and the unwound portion of the strip adjacent the scroll.

6. A support for pictures or the like as claimed in claim 3 in which the clip has a body portion extending transversely about the strip and a hook portion extending forwardly from said body portion, said hook portion being adapted to set over the end of the sheet.

7. A support for pictures or the like as claimed in claim 3 in which the clip has a body portion comprising a strap extending transversely across the front of the strip and around the back with the ends of the strap coming within a short distance of each other at the back, a hook portion extending forwardly from the strap at the front of the strip, said hook portion being adapted to set over the end of the sheet, and a lever coming in the space between said ends pivotally mounted on the strap adjacent said ends, the rotation of said lever causing one end thereof to push against the back of the strip, pushing said ends away from the strip, clamping the clip thereby on the strip.

8. A support for pictures or the like as claimed in claim 3 in which the clip has a body portion comprising a strap extending transversely across the front and back of the strip, a hook portion extending forwardly from the strap at the front of the strip, said hook portion being adapted to set over the end of the sheet and means on the strap at the rear of the strip for hanging the support.

9. A support for pictures or the like as claimed in claim 3 in which the clip has a body portion comprising a strap extending transversely across the front of the strip and around the back with the ends of the strap coming within a short distance of each other at the back, a hook portion extending forwardly from the strap at the front of the strip, said hook portion being adapted to set over the end of the sheet, and a lever, coming in the space between said ends, pivotally mounted on the strap adjacent said ends, the forward end of the lever formed as a cam to bind against the back of the strip when said forward end is rotated down, the rear end of said lever adapted for engaging a fixed object for hanging said support, the effect of said hanging tending to rotate the rear end of the lever down, binding the clip thereby on the strip.

10. A support for pictures or the like having a base adapted to rest on a horizontal supporting surface, an elongated strip of flexible spring material normally coiled forwardly in a scroll at its upper portion, said strip being secured near its lower end to the base opposite the front of the base, said scroll being capable of being considerably unwound against its resilience without permanent set by movement thereof upward from said base, and means substantially at the bottom of the base and at the strip for engaging the bottom and front of said sheet, said sheet when inserted in the support being set in the front of said strip and engaged by said means, while the top of the sheet comes adjacent the scroll requiring unwinding of the latter for its insertion in the support, said sheet being subjected thereby to endwise compression between the scroll and said means when the scroll is released.

11. A support for pictures or the like in conjunction with a sheet of stiff material comprising an elongated strip of flexible resilient material normally coiled into a scroll at at least one end, said scroll being capable of being unwound against its resilience without permanent set by movement thereof toward said end, and a flexible resilient plate of transparent material mounted on the front of the strip and coiling in a scroll inside the scroll of said strip, one end of said sheet, when such a sheet is inserted in said support being set on the front of the strip between the strip and said plate, said end of the sheet coming adjacent the scroll requiring unwinding thereof, said scroll when released gripping said end of the sheet.

12. A support for pictures or the like in conjunction with a sheet of stiff material comprising an elongated strip of flexible spring material normally coiled forwardly in a scroll at at least one end, means near the other end for operatively engaging one edge of said sheet, said strip being resiliently flexible for substantially its entire length and having a coiling bias whereby when the scroll at one end is released, the strip will coil up into a scroll until the scroll meets said means, said sheet when inserted in said support requiring unwinding of the scroll, said sheet when so inserted being set in front of said strip and engaged by said means at said edge while its opposite edge comes adjacent said scroll and is subjected to pressure therefrom in a direction toward said former edge when the strip is released for coiling, whereby said sheet is subjected to endwise compression between said means and the scroll.

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