Feb. 6, 1951 E. S. GARDNER 2,540,722

CLOTHESPIN

Filed April 30, 1948

Fig. 1.

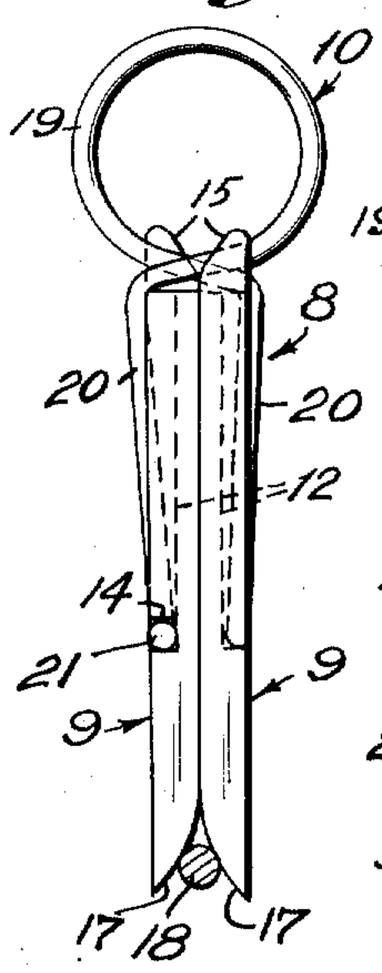


Fig. 2.

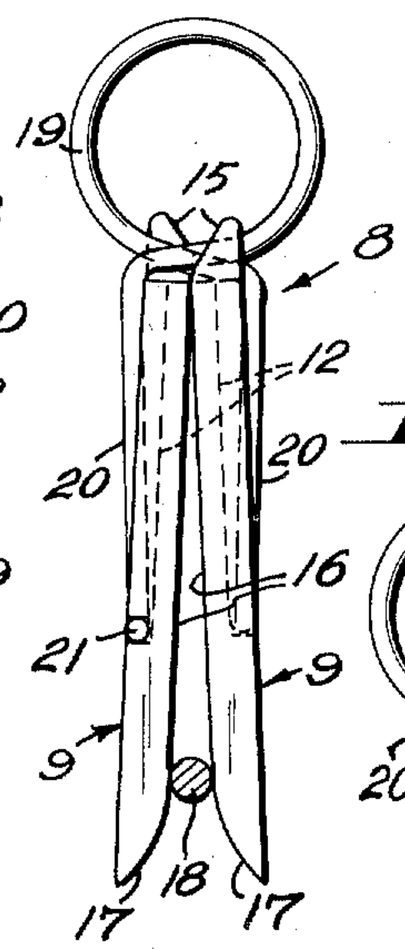


Fig. 3.

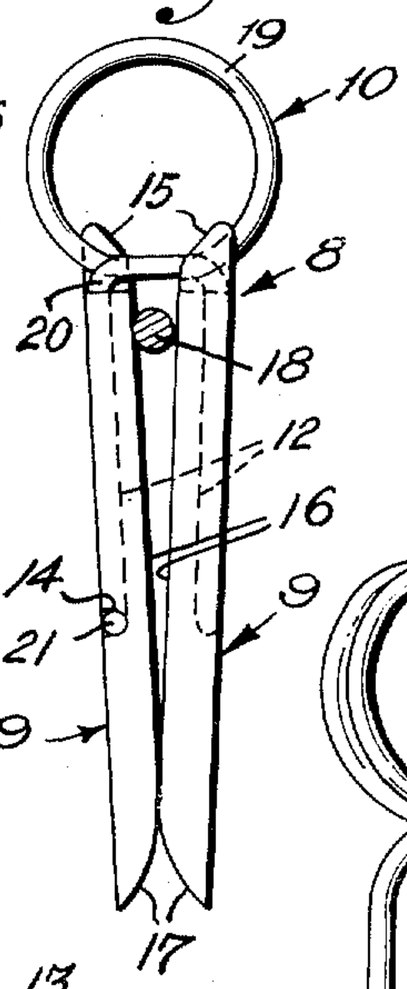


Fig. 4.

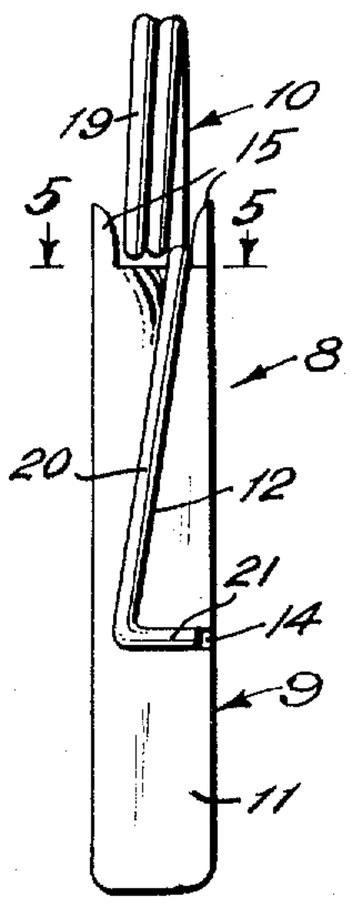


Fig. 5.

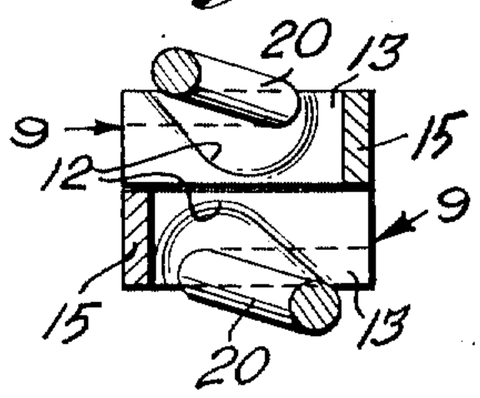


Fig. 6.

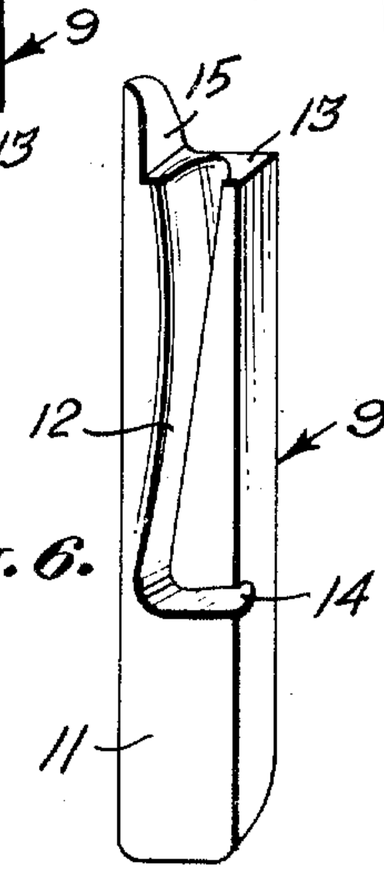
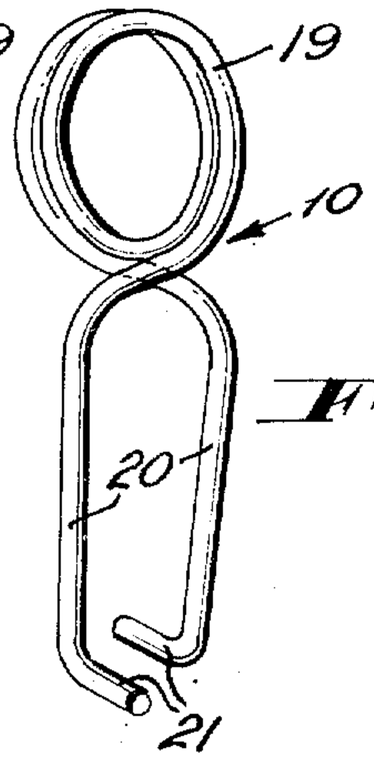


Fig. 7.



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2,540,722

CLOTHESPIN

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3 Claims. (Cl. 24—137)

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This invention relates to an improved construction of clothespin and constitutes an improvement on my prior U. S. Letters Patent No. 1,992,863, issued February 26, 1935 entitled Clothespin and has for its primary object to provide a clothespin embodying the improvements and advantages of said aforementioned patent and which is of a much simpler construction comprising fewer parts and capable of being more economically manufactured and sold, yet which will be equally as durable and efficient for its intended purpose.

Still a further and very important object of the invention is to provide a novel connection between the jaws of the clothespin and its resilient means whereby when the jaws are spread for insertion onto a clothesline and clothes therein, as the line and portion of the clothes engaged thereby is moved inwardly between the jaws, said jaws will assume a closed position at their outer ends for effectively retaining the clothesline and clothes in engagement therewith.

Still another object of the invention is to provide a clothespin which is so constructed that the clamping action imparted by the jaws will be transmitted primarily to a portion of the jaws disposed below a clothesline engaged thereby for clamping the clothes beneath the line rather than for clamping the clothes against the line.

Various other objects and advantages of the invention will hereinafter become fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

Figure 1 is a side elevational view of the clothespin showing the jaws in a fully closed position;

Figure 2 is a similar view showing the jaws being initially opened by engagement of a clothesline therewith;

Figure 3 is a view similar to Figures 1 and 2 but showing the jaws in the position which they will assume after the clothesline has assumed a fully applied position;

Figure 4 is an edge elevational view of the clothespin;

Figure 5 is an enlarged cross sectional view thereof taken substantially along a plane as indicated by the line 5—5 of Figure 4;

Figure 6 is an enlarged perspective view of one of the clothespin jaws, and

Figure 7 is a perspective view of the clothespin spring.

Referring more specifically to the drawing, the novel clothespin in its entirety and which is designated generally 8 includes two corresponding jaw

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member 9 which may be formed of wood, plastic or any other suitable material, and a spring device, designated generally 10.

Each of the jaws 9 comprise an elongated bar which is relatively wide and thick and which is provided in its outer side 11 with a groove 12 having an upper enlarged end which opens outwardly of the upper end 13 of said jaw 9 and a lower, opposite end 14 which extends transversely of the jaw 9 and opens outwardly of one side edge thereof. The opposite side edge of the jaw 9 is provided with an upper extension or ear 15 which projects above the upper end 13. The jaws 9, as best seen in Figures 1, 2 and 3 are provided with inner substantially flat sides 16 which are normally disposed in abutting engagement when the clothespin 8 is not in use and which inner sides or surfaces 16 are provided with beveled or flared outer ends 17 which diverge with respect to one another to form the entrance mouth of the clothespin 8 adapted to receive a clothesline 18 therein, as illustrated in Figure 1.

The spring device 10, as best illustrated in Figure 7, is formed from a relatively heavy gauged strand of resilient wire the intermediate portion of which is looped to provide a spring coil 19 from which the terminals of the strand project from opposite ends of the convolutions of the coil 19 to form corresponding downwardly extending legs 20 having inturned terminals 21 which extend in opposite directions with respect to one another. The legs 20 are spring biased by the coil 19 toward one another.

The spring device 10 is disposed with the coil above and adjacent the ends 13 of the jaws 9 and with the legs 20 engaging in the grooves 12 and with their angular terminal portions 21 engaging in the transverse groove portions 14, as best illustrated in Figure 4. With the spring legs 20 thus disposed in engagement with the grooves 12 the spring coil 19 will be disposed in substantially an upright position above the ends 13 of the jaws 9 and with portions thereof positioned between the ears 15 which will thus function in cooperation with the grooves 12 to prevent lateral displacement of the spring device 10 relatively to the jaws 9 and thus provide an efficient construction of clothespin embodying only three parts, the two jaws 9 and the spring device 10.

The clothespin 8 is illustrated in Figures 1, 2 and 3 being applied to a clothesline 18 and it will be readily apparent that the clothesline would ordinarily be covered by clothing or other articles to be held suspended thereon by the

clothespin 8 and which is not shown. The clothespin 8 is initially positioned over the line 18, as illustrated in Figure 1 and as the clothespin is pressed downwardly onto the line 18 the lower ends of the jaws 9 will be spread outwardly pivoting at the upper portions of the abutting surfaces 16 and spreading the legs 20 by engagement of the intermediate portions of the jaws 9 with the leg portions 21. As the jaws move downwardly over the clothesline 18 to a position where the clothesline is in alignment with the terminals 21 of the spring device 10, said jaws will pivot on said terminal portions 21 to assume a substantially parallel position and as the clothespin is further forced downwardly over the line 18 this pivotal movement will continue causing the lower portions of the jaws to move into abutting engagement adjacent the flared surfaces 17. It will thus be readily apparent that if a piece of clothing, not shown, is suspended from the line 18 it will be clamped by the jaw surfaces 16 adjacent their lower ends so that the principal clamping action on the clothing will be below the clothesline 18. It will also be readily apparent that contrary to conventional clothespins where there is a tendency for the clothespin to disengage itself, the spring device 10 will exert a spring biasing action on the jaws 9 in such a manner as to urge the clothesline 18 inwardly of said jaws when it is disposed above the level of the spring terminals 21 so that there will be no tendency of the clothespin to disengage itself from the line or the clothes engaged thereby and a positive force will be required to cause the spring legs 20 to yield outwardly to permit the jaws 9 to disengage from the line.

The coil 19 comprises a plurality of convolutions, preferably two which are contractile for biasing the legs 20 toward one another to urge the jaws to a closed position. The extent that the coil 19 is wound can vary depending upon the requirements of its use. For holding heavy material where a considerable spring pressure is required, the coil 19 is wound tighter than for use in holding lighter materials.

Various modifications and changes are contemplated and may obviously be resorted to, without departing from the spirit or scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. A clothespin comprising a pair of corresponding jaws each having a groove in its outer side, a spring device comprising a spring coil having legs projecting from each end thereof, said legs engaging the grooves of the jaws and being spring biased toward one another for normally holding the opposite, inner sides of the jaws in abutting engagement, the terminal portions of the spring legs forming pivots for portions of said grooves on which the jaws pivot relatively to the legs whereby the jaws will be caused to move to closed position beneath a clothesline or the like as it is moved upwardly between said jaws, said grooves extending longitudinally of the jaws and opening outwardly of corresponding ends thereof, each of said grooves having an angularly disposed opposite end extending transversely of the jaw, and said legs having elongated portions engaging the longitudinally extending portion of said grooves and being normally spaced from the beds of said longitudinal groove portions, and said terminal portions of the legs being angularly disposed relatively to the elongated leg portions for engaging the transversely disposed ends of the grooves.

2. A clothespin comprising a pair of corresponding jaws each having a groove in its outer side, a spring device comprising a spring coil having legs projecting from each end thereof, said legs engaging the grooves of the jaws and being spring biased toward one another for normally holding the opposite, inner sides of the jaws in abutting engagement, the terminal portions of the spring legs forming pivots for portions of said grooves on which the jaws pivot relatively to the legs whereby the jaws will be caused to move to closed position beneath a clothesline or the like as it is moved upwardly between said jaws, said grooves extending longitudinally of the jaws and opening outwardly of corresponding ends thereof, each of said grooves having an angularly disposed opposite end extending transversely of the jaw, and said legs having elongated portions engaging the longitudinally extending portions of said grooves and being normally spaced from the beds of said longitudinal groove portions, and said terminal portions of the legs being angularly disposed relatively to the elongated leg portions for engaging the transversely disposed ends of the grooves, said grooves cooperating with the legs for retaining the jaws properly positioned with respect to one another and to the spring device.

3. A clothespin comprising a pair of corresponding jaws each having a groove in its outer side, a spring device comprising a spring coil having legs projecting from each end thereof, said legs engaging the grooves of the jaws and being spring biased toward one another for normally holding the opposite, inner sides of the jaws in abutting engagement, the terminal portions of the spring legs forming pivots for portions of said grooves on which the jaws pivot relatively to the legs whereby the jaws will be caused to move to closed position beneath a clothesline or the like as it is moved upwardly between said jaws, said grooves extending longitudinally of the jaws and opening outwardly of corresponding ends thereof, each of said grooves having an angularly disposed opposite end extending transversely of the jaw, and said legs having elongated portions engaging the longitudinally extending portions of said grooves and being normally spaced from the beds of said longitudinal groove portions, and said terminal portions of the legs being angularly disposed relatively to the elongated leg portions for engaging the transversely disposed ends of the grooves, and said laterally turned terminals of the spring legs forming the pivots or fulcrums on which the jaws pivot relatively to the spring device.

ESPA S. GARDNER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,922,863	Gardner	Feb. 26, 1935

FOREIGN PATENTS

Number	Country	Date
119,253	Australia	Nov. 20, 1944
24,587 of 1935	Australia	Aug. 18, 1936