W. R. DERR.

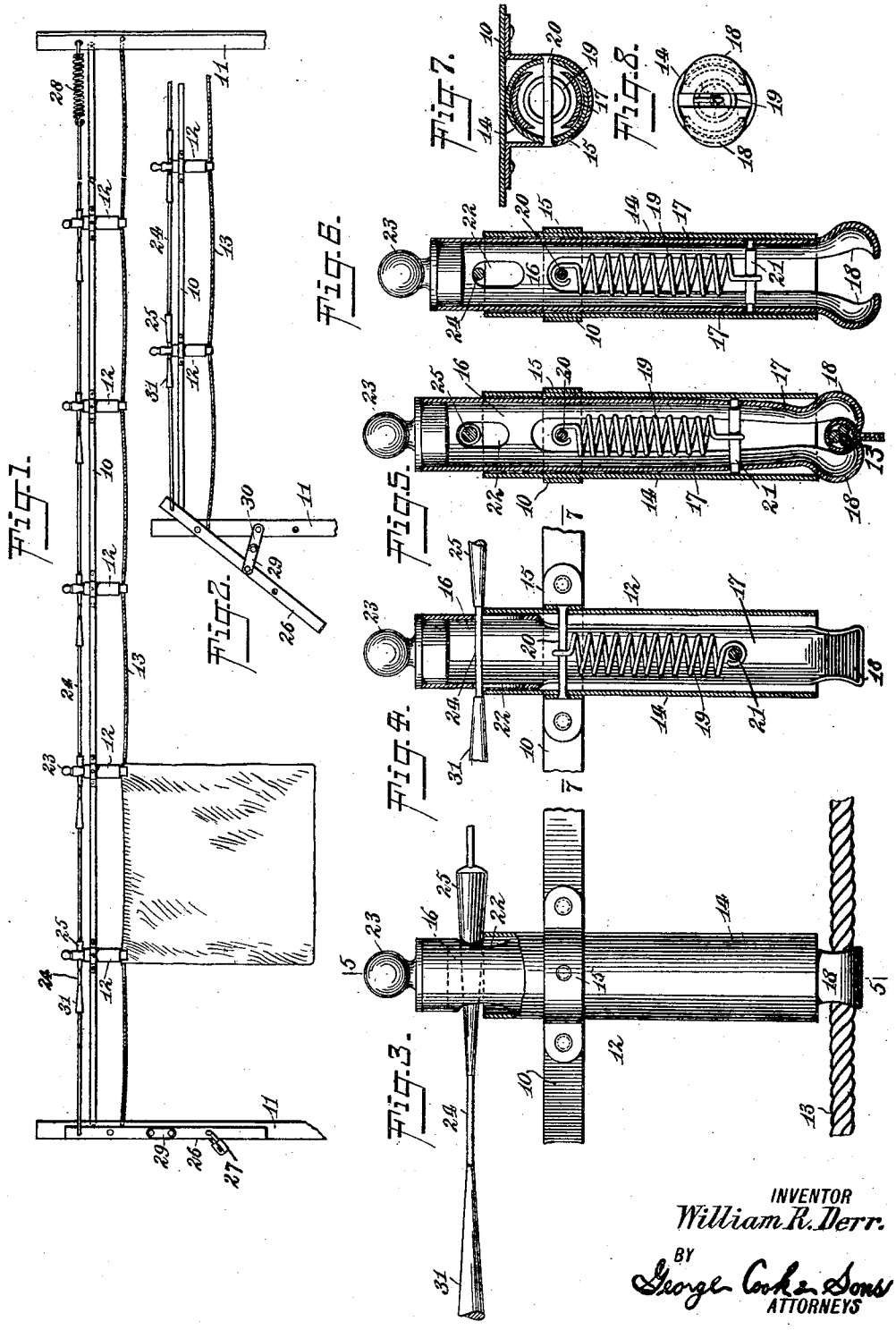
CLOTHES LINE AND LOCKING CLOTHES PIN THEREFOR.

APPLICATION FILED JAN. 23, 1918.

1,275,538.

Patented Aug. 13, 1918.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 9.

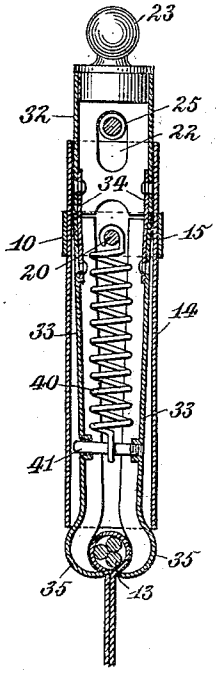


Fig. 11.

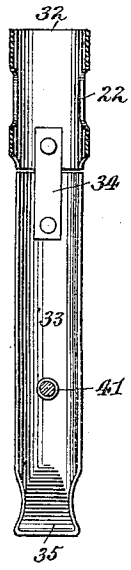


Fig. 10.

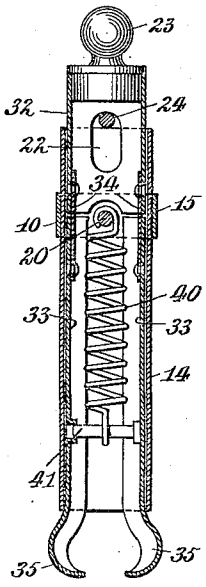


Fig. 12.

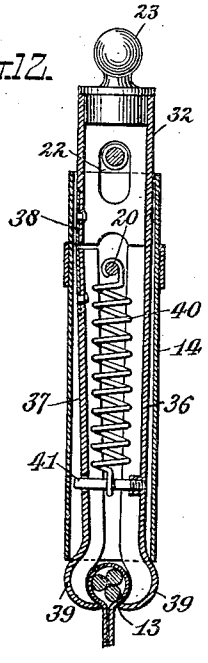


Fig. 14.

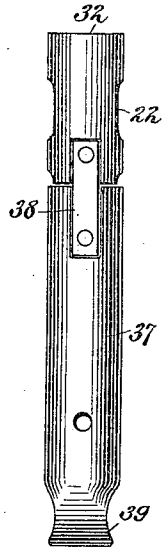
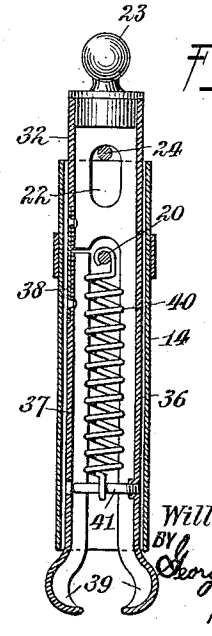


Fig. 13.



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UNITED STATES PATENT OFFICE.

WILLIAM R. DERR, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO WILLIAM J. LILLIE, OF NEW YORK, N. Y.

CLOTHES-LINE AND LOCKING CLOTHES-PIN THEREFOR.

1,275,538. Specification of Letters Patent. **Patented Aug. 13, 1918.**

Application filed January 23, 1918. Serial No. 213,323.

To all whom it may concern:

Be it known that I, WILLIAM R. DERR, a citizen of the United States, and a resident of New York, borough of Manhattan, in the county of New York and State of New York, have made and invented certain new and useful Improvements in Clothes-Lines and Locking Clothes-Pins Therefor, of which the following is a specification.

My invention relates to clothes-lines and like devices designed to support clothes while they are drying, and particularly to clothes-supporting devices having locking means for preventing unauthorized persons from removing the clothes from the supporting device, as frequently happens where persons other than the owner have access to the house-top, lot, or other space where the clothes are hung out to dry.

The object of my invention is to provide an improved clothes-supporting device of the locking class or type above referred to, and one in which a plurality of pairs of coöperating spring-closed clasping jaws are employed to accomplish the holding of the clothes; together with locking means adapted when in either one of two different positions to hold said jaws in the closed positions which they assume when clothes are being supported, to thereby provide for additional safety and security against theft, as will hereinafter appear.

Further objects of my invention are to provide various improvements in and relating to the clothes-pin portion of my device of which the clasping jaws above referred to form a part; to provide various features of improvement in and relating to the clasping jaw locking mechanism for such devices; and to otherwise improve upon and enhance the efficiency of locking clothes-supporting devices of the general kind or class to which my invention relates.

With the above and other objects in view, my invention consists in the improved clothes-supporting device and subordinate parts and auxiliary features thereof illustrated in the accompanying drawings and hereinafter described and claimed; and in such variations and modifications thereof as will be obvious to those skilled in the art to which my invention relates.

In the drawings accompanying and forming a part of this specification and wherein the preferred embodiment of my invention is illustrated:

Figure 1 is a view showing my improved clothes-supporting device installed and in use;

Fig. 2 is a view showing the operating lever for the locking mechanism in a position other than the position in which it is shown in Fig. 1;

Fig. 3 is a view showing one of the clothes-pins, and the locking means coöperating therewith in elevation, and upon a larger scale;

Fig. 4 is a view showing a section of the clothes-pin portion of my device upon a vertically extending plane;

Fig. 5 is a view showing a section of the clothes-pin upon a vertically extending plane at right angles to the plane of Fig. 4, and as indicated by the line 5—5, Fig. 3;

Fig. 6 is a view similar to Fig. 5, but showing the clasping jaws in their open position;

Fig. 7 is a view showing a section upon a transverse plane indicated by the line 7, 7, Fig. 4;

Fig. 8 is a view showing the lower end of the clothes-pin and clasping jaws thereof as seen from a position below the same, looking up;

Fig. 9 is a view showing a section of the clothes-pin portion of my device upon a vertically extending plane, and in which a modified form of one of the elements thereof is employed;

Fig. 10 is a view corresponding with Fig. 9, but in which the parts are shown in different positions;

Fig. 11 is a view showing the clasping member of the clothes-pin illustrated in Fig. 9 removed from the body portion thereof;

Fig. 12 is a sectional view showing the clothes-pin portion of my device as provided with another form of clasping member;

Fig. 13 is a view similar to Fig. 12, but showing the clasping member depressed so as to permit the clasping jaws to open; and

Fig. 14 is a view showing the clasping member of Fig. 12 apart from the tubular body portion of the clothes-pin.

Referring to the drawings, the reference numeral 10 designates a suitable support the

ends of which are secured to upright standards or equivalent members 11, whereby the entire clothes-supporting device is supported at proper height to permit easy access in hanging out clothes to dry. Secured to this support are a plurality of clothes-pins 12 having each a pair of jaws designed to clasp clothes and hold them upon a clothes-line 13 located adjacent the pin supporting member 10 and extending parallel therewith; the clothes-line 13 being of any suitable kind and the ends thereof being preferably secured to the upright posts 11, all as best shown in Fig. 1 of the drawings.

The supporting member 10 is preferably in the form of a metallic band or steel tape, and the same is designed to remain in place permanently, after having been installed; whereas the clothes-line 13 is preferably secured to the posts 11 in such a way that it may be readily put up, and taken down when not in use, by a person having clothes to hang up to dry. It therefore follows that the supporting member and clothes-pins carried thereby provide a device the purpose of which, as will hereinafter appear, is to clasp clothes onto a clothes-line furnished, ordinarily, by the user of the device, and to lock them thereupon; although both the supporting member and pins, as well also as the clothes-line, may be in the form of a permanent installation, or may be both so arranged and supported that they may be readily taken down when not in use.

Figs. 3 to 8 inclusive, illustrate the features of construction and operation of the individual clothes-pins 12 carried by the supporting member 10. Each pin, as shown, comprises a tubular body portion 14 secured to the support 10 in any suitable way, as by means of a U-shaped clip 15 secured to the tubular body portion and the ends of which are riveted to the said support; together with a clasping member 16 located within and movable vertically relative to said tubular member and having resilient depending portions 17 terminating below the lower end of the tubular member in cooperating clasping jaws 18, which jaws are designed to engage the clothes and hold them upon the line 13, as best shown in Fig. 5.

The form of the lower ends of the depending portions 17 of the clasping member where they merge into the jaws 18 is such that engagement between them and the adjacent lower end of the tubular member 14 will cause the jaws to approach one another as the clasping member moves upward within the tubular member; the clasping member being shown in its lowermost position in Fig. 6, with the jaws apart so that they may be passed over clothes placed upon the line 13, while Fig. 5 shows the clasping member in its uppermost position with the jaws forced toward one another and into position to clasp the clothes and hold them upon the line.

The clasping member 16 in the embodiment of my invention illustrated is moved upward within the tubular member 14 by means of an internal spring 19, the upper end of which is secured to a transverse pin 20, which pin may serve also as a means for securing the U-shaped clip 15 to the tubular member as shown in Figs. 4 and 7, while the lower end of said spring is shown as operatively connected with the said clasping member through a cross-pin 21 with which the the lower end of said spring is connected, and the ends of which cross-pin extend into openings provided in the depending portions or legs 17 of the clasping member. The clasping member as a whole is preferably made from a piece of tubing of such diameter as to fit somewhat loosely within the tubular casing 14; the side walls thereof being slotted to provide the depending legs 17, and transverse openings 22 being provided adjacent the upper end of the tubular member in order to accommodate the locking mechanism to be next described. The upper end of the clasping member is preferably provided with a head 23 of wood or other heat non-conducting material in order not to injure the wet hands of a person hanging out clothes in cold weather, during which operation the clasping member has to be depressed against the upward pull of the spring 19 in order to move the jaws 18 below the lower end of the tubular casing 14 and permit them to separate and assume the position shown in Fig. 6 preparatory to placing the jaws over the clothes on the line, and releasing said clasping member to thereby permit the jaws to clasp the clothes as shown in Fig. 5, as will be understood.

After the clothes have been placed upon the line 13 and clasped thereupon by manipulating the clothes-pins as hereinbefore explained the several pins are locked in their closed condition, so that they may not be removed from the line by an unauthorized person; such locking being accomplished by locking means comprising, in the embodiment of my invention illustrated, a wire 24 located adjacent and movable longitudinally of the supporting member 10 and extending through the openings 22 aforesaid; and which wire is provided with a plurality of wedges 25 which, when moved into said openings as the wire 24 is moved to the left and as best shown in Fig. 3, form stops or abutments between the upper ends of the tubular members and the upper walls of the openings 22 and prevent downward movement of the clasping members 16 so long as the wedges lie within the openings. When, however, the wire is moved to the right so as to move the wedge members 25 out of the

openings 22, then the clasping members may be readily depressed, and the clothes removed from the line 13, as will be understood from Fig. 6 in which the clasping member is shown in its lowermost and releasing position.

Longitudinal movement is imparted to the wire 24 to lock the several clothes-pins by means of a pivotally supported lever 26, one end of which is connected with said wire and the other end of which is adapted to be locked in a position to keep the several clothes-pins locked by means of a pad-lock 27, and, in order to keep the wire taut and the wedge members 25 in proper relation with the clothes-pins, movement of the said wire is opposed by a tension spring 28 at the end thereof remote from its connection with the operating lever 26. Furthermore, and in order to insure that the wire 24 will assume a definite position, due to the action of the spring 28, with the wedge members 25 just out of the openings 22 when the clothes pins are unlocked, toggle members 29, 30 are provided between the lever 26 and a fixed abutment which, when in their straightened condition, arrest the movement of the lever in such a position as to insure that the wire shall have moved to the right just far enough to move the wedges 25 out of the openings 22, see Fig. 2.

In order to provide an additional feature of security against theft of the clothes a second set of wedge members is provided upon the wire 24, which last mentioned members will lock the clothes-pins in their closed condition upon excessive movement of the wire 24 toward the right, due to the action thereupon of the spring 28; the wire and double set of wedge members thus providing locking means for locking the clothes-pins closed when the locking means is in either one of two separate and distinct extreme positions. It therefore follows that should a person attempt to remove clothes from the line surreptitiously, as by cutting the wire 24 adjacent its connection with the lever 26, then the spring 28 will move the wire to the right to an excessive extent, during which the wedge members 31 will be brought into positions to again lock the pins, thus preventing the removal of the clothes from the line.

It will be appreciated that the construction of the clothes-pins is such as to resist such attempts as might be made to open them as by prying the jaws apart with a screw driver or other implement whereby security against theft of the clothes is secured. The supporting member 10, as well also as all the parts of the clothes-pins themselves, will preferably be galvanized or otherwise treated to protect them from rust as, as has been hereinbefore stated, the supporting strip or tape and the clothes-pins secured to it are intended to be permanently installed and to remain exposed to the weather all the time.

Figs. 9 to 13 illustrate two modified or alternative forms of the clothes-pin portion of my device, the modification having to do with the clasping member which carries the jaws whereby the clothes are grasped and held in place upon the clothes-line preparatory to locking the pins in their closed condition as hereinbefore explained.

In the forms of clothes-pin illustrated in the figures here referred to, the tubular body portion 14 is or may be the same in form as the body portion illustrated in Figs. 1 to 8, and a plurality of such clothes-pins are secured to a suitable support, not shown, similar in function to the support 10 in the form of my invention herein first described; and the pins are locked in their closed condition by means of a wire 24 to which wedges are secured, to thereby hold the clothes upon the clothes-line 13 and prevent their removal therefrom by unauthorized persons.

The clasping member, however, is somewhat modified in the forms of my invention illustrated in Figs. 9 to 13, in that one or both of the depending portions thereof (which correspond with the depending portions 17 in the form of my invention first described) are made separate from the upper end 32 of the clasping member considered as a whole, and which upper portion both in the forms of my invention here referred to and in the form already described I refer to as a guide portion because of the function which it performs in guiding the upper end of the clasping member, considered as a whole, in its movements within the tubular casing 14 in grasping or releasing the clothes.

In Figs. 9 to 11 both the depending portions 33 are connected with the guide portion 32 through and by means of flexible and resilient metallic strips 34 secured to the elements which they connect by means of suitable rivets, as shown, whereby the said depending portions may partake of a slight swinging movement about the pivotal connection provided between their upper ends and the lower end of the guide portion 32; which feature of construction provides a clothes-pin in which the jaws 35 at the lower ends of the depending portions will move away from each other, as the clasping member is moved downward, somewhat better than in the case where the depending portions are formed integral with the guide portion.

Figs. 12 to 14 show a construction in which one of the depending portions, 36, is formed integrally with the guide portion 32; while the other depending portion 37 is connected with the guide portion by means

of a metallic strip 38; the depending portions having coöperating clasping jaws 39 which move apart from each other to release the clothes when the clasping member is moved downward, and are forced toward each other to grasp the clothes by engagement with the lower end of the casing 14 as said clasping member moves upward, as hereinbefore explained.

In the forms of my invention illustrated in Figs. 9 to 13, the spring 40 is the same in function and operation as the spring 19 of the form of my invention first described; although the lower end thereof is operatively connected with the clasping member through a pin 41 rigidly connected with one of the depending members, and extending into a hole provided in the other member, as shown, which is a preferred method of providing an operative connection between the lower end of the spring and the clasping member considered as a whole.

Having thus described and explained my invention, I claim and desire to secure by Letters Patent:

1. In a device of the class described, a suitable support; a plurality of clothes-pins carried by said support and each of which comprises a pair of coöperating clasping jaws adapted to engage clothes or similar articles; a wire located adjacent and movable longitudinally of said support; and means operated by said wire and adapted to lock said jaws in their closed positions when said wire is in either one of two separate and distinct positions.

2. In a device of the class described, a suitable support; a clothes-line extending along and arranged adjacent said support; a plurality of clothes-pins carried by said support and each of which comprises a pair of coöperating clasping jaws adapted to engage clothes or similar articles supported by said clothes-line to thereby hold them in place thereupon; a wire located adjacent and movable longitudinally of said support; means carried by said wire and adapted to lock said jaws in their closed position when said wire is in either one of two separate and distinct positions; means operatively connected with one end of said wire for imparting longitudinal movement thereto; and a spring operatively connected with the other end of said wire.

3. In a device of the class described, a suitable support; a clothes-line extending along and arranged adjacent said support; a plurality of clothes-pins carried by said support and each of which comprises a pair of coöperating clasping jaws adapted to engage clothes or similar articles supported by said clothes-line to thereby hold them in place thereupon; a wire located adjacent and movable longitudinally of said support; means carried by said wire and adapted to lock said jaws in their closed position when said wire is in either one of two separate and distinct positions; a pivotally supported lever operatively connected with one end of said wire; a toggle connected with said lever and adapted to limit the extent of movement thereof in one direction; and a spring operatively connected with the other end of said wire.

4. In a device of the class described, a suitable support; a plurality of clothes-pins carried by said support and each of which comprises a tubular body portion, a clasping member movable within said body portion and having a pair of coöperating jaws at its lower end so shaped as to be forced toward each other by engagement with the wall of said tubular member when said clasping member is moved upwardly, and a spring adapted to move said clasping member upwardly within said tubular member; a wire located adjacent and movable longitudinally of said support; and a plurality of locking members operated by said wire and adapted to lock said clasping members against movement within said tubular members.

5. In a device of the class described, a suitable support; a clothes-line located adjacent and extending along said support; a plurality of clothes-pins carried by said support and each of which comprises a tubular body portion, a clasping member movable within said body portion and having a pair of coöperating jaws at its lower end adapted to clasp clothes or similar articles and hold them upon said line, a spring located within said body portion and adapted to move said clasping member upwardly, and means whereby said jaws are forced toward each other as upward movement is imparted to said clasping member; a wire located adjacent and movable longitudinally of said support; and a plurality of locking members carried by said wire and adapted to lock said clasping members against movement within said tubular members.

6. In a device of the class described, a suitable support; a plurality of clothes-pins carried by said support and each of which comprises a tubular body portion, a clasping member movable within said body portion and having an opening adjacent the upper end thereof, and a pair of coöperating jaws at its lower end so shaped as to be forced toward each other by engagement between them and the lower end of said tubular member when said clasping member is moved upwardly, and a spring adapted to move said clasping member upwardly within said tubular member; a wire located adjacent and movable longitudinally of said support and extending through the openings aforesaid in said clasping members; and a plurality of wedge members carried by said wire and adapted to prevent downward move-

ment of said clasping members within said tubular members.

7. In a device of the class described, a clothes-pin comprising a tubular body portion; a clasping member movable within said body portion and having two oppositely located depending portions, and a pair of coöperating jaws at the lower ends of said depending portions so shaped as to be forced toward each other by engagement between them and the lower end of said tubular member when said clasping member is moved upwardly within said tubular member; a spring located within said tubular member and operatively connected with said clasping member and adapted to move the same upward within said tubular member; and locking means adapted to prevent downward movement of said clasping member within said tubular member.

8. In a device of the class described, a clothes-pin comprising a tubular body portion; a clasping member movable within said body portion and having an opening adjacent the upper end thereof, and two oppositely located depending portions having a pair of coöperating jaws at their lower end so shaped as to be forced toward each other by engagement between them and the lower end of said tubular member when said clasping member is moved upwardly within said tubular member; and a spring located within said tubular member and pperatively connected with said clasping member and adapted to move the same upward within said tubular member.

9. In a device of the class described, a clothes-pin comprising a tubular body portion; a clasping member movable within said body portion and having a guide portion at its upper end, and two oppositely located depending portions one of which is connected with said guide portion in such a way as to swing relatively thereto, the lower ends of said depending portions having a pair of coöperating jaws so shaped as to be forced toward each other by engagement between them and the lower end of said tubular member when said clasping member is moved upwardly within said tubular member; and a spring located within said tubular member and operatively connected with said clasping member, and which spring is adapted to move said clasping member upward within said tubular member.

10. In a device of the class described, a clothes-pin comprising a tubular body portion; a clasping member movable within said body portion and having a guide portion at its upper end, and two oppositely located depending portions connected with said guide portion and the lower ends of which are movable toward and from each other, and are so shaped as to provide a pair of coöperating jaws adapted to engage the lowet end of said tubular member as said clasping member is moved upward therein, to thereby force said jaws toward each other; and a spring located within said tubular member and operatively connected with said clasping member, and which spring is adapted to move said clasping member upward within said tubular member.

11. In a device of the class described, a clothes-pin comprising a tubular body portion; a clasping member movable within said body portion and having a guide portion at its upper end, and two oppositely located depending portions one of which is connected with said guide portions through and by means of a resilient metallic strip, so that the depending portion in question may swing relative to said guide portion, the lower ends of said depending portions having a pair of coöperating jaws so shaped as to be forced toward each other by engagement between them and the lower end of said tubular member when said clasping member is moved upwardly within said tubular member; and a spring located within said tubular member and operatively connected with said clasping member, and which spring is adapted to move said clasping member upward within said tubular member.

Signed at New York, borough of Manhattan, in the county of New York and State of New York, this 12th day of January, A. D. 1918.

WILLIAM R. DERR.

Witnesses:
GEORGE A. CROWLEY,
OSCAR W. MOLLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."