(No Model.)

J. SCHMID.

CLOTHES PIN.

No. 446,648. Patented Feb. 17, 1891.

Fig. 1.

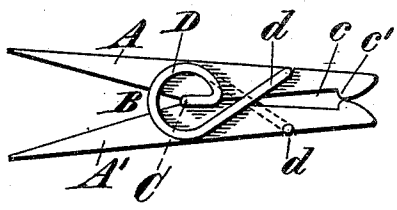


Fig. 2.

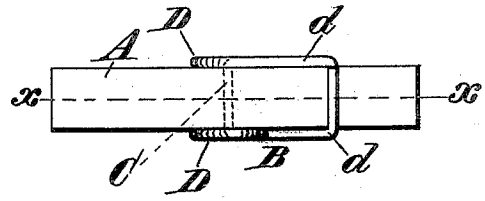


Fig. 3.

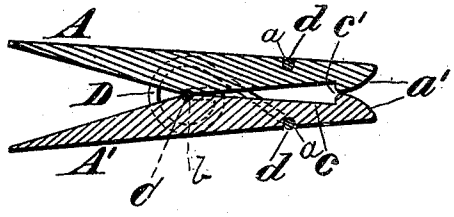


Fig. 4.

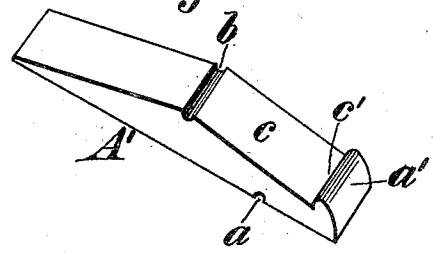
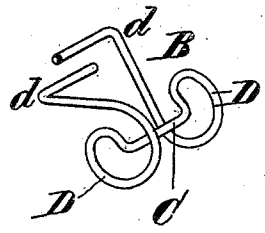


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN SCHMID, OF OLNEY, ILLINOIS.

CLOTHES-PIN.

SPECIFICATION forming part of Letters Patent No. 446,648, dated February 17, 1891.

Application filed July 13, 1889. Serial No. 317,427. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCHMID, a citizen of the United States, residing at Olney, in the county of Richland and State of Illinois, have invented certain new and useful Improvements in Clothes-Pins, of which the following is a specification.

My invention relates to that class of clothes-pins in which two clamps forming jaws are pivotally held together by springs so that they may be opened or spread apart to receive the clothes-line and automatically closed to engage said line and the clothes hung upon it, all of which will be fully hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal elevation of my improved clothes-pin; Fig. 2, a plan of the same; Fig. 3, a longitudinal section on line *x x* of Fig. 2; Fig. 4, a detail perspective view of one of the divisions or clamp-bars forming part of my clothes-pin, and Fig. 5 a detail perspective view of my improved form of coupling-spring for pivotally holding the two clamp bars together under pressure.

A A′ represent two clamping-bars, each being a counterpart of the other and constructed as I shall now describe.

a a are transverse grooves cut in the outer plane faces of the clamps near their forward ends, and *b b* shallow transverse grooves cut in the inner engaging faces or fulcrum-points of said clamps intermediate their ends.

a′ a′ represent inwardly-disposed bevels on the forward ends of the clamps, furnishing a mouth to receive and guide the clothes and line to be gripped within the opening formed by the inclined portions *c* and shoulders *c′* on the inner faces of said clamps forward of said grooves *b b*. The inner faces of the clamp-bars are tapered from said grooves *b* outwardly toward their rear ends in the usual manner, to furnish the customary space between said ends to manipulate the said clamps when it is desired to open their gripping-jaws for engagement with or disengagement from the clothes and line.

B represents the device (as a whole) for pivotally holding the clamp-bars together and exerting the necessary pressure. It is composed (in detail) of a single length of suitably-tempered or resilient wire formed centrally with a plain straight cross-bar or ligament C, two circular springs or coils D D, one at either end, said cross-bar at right angles thereto, and tangential arms *d d*, which latter are immediate continuations or extensions of said coils and have but a single right-angled bend in each of them. When the several parts are in proper position for use, the cross-bar or ligament C whose principal and preferred function is to unite the coils D D lies within the grooves *b b* of the clamp-bars, said coils being parallel with and abutting against the opposite sides of both bars, and the inwardly-disposed ends of arms *d d* engage the grooves *a a* cut in the outer plane faces of said bars, all as very clearly shown in the several views of the drawings.

The operation of the clamps on the clothes and line is as customary, and will therefore need no description here. It will be seen, however, in said operation that the large vertical circular springs which extend from edge to edge of both sides of the clamp-bars and abut against the same at all points will effectually hold the said bars against torsional and transverse movement or disengagement, and also that the thin and straight central cross-bar or ligament C forms a stationary shaft or bearing upon which the clamp-bars may turn with but little if any friction or wear.

I claim—

1. In a clothes-pin, the combination, with two flat clamping-bars fulcrumed at a point intermediate their ends, of a coupling and pressure device consisting of a single piece of wire having a straight central portion of the same length as the width of the bars and having its ends bent at right angles thereto and each formed into a circular spring of a diameter substantially the same as the thickness of the pin and having the straight portion for a center, the portion of the wire beyond said springs being extended at a tangent thereto, and each portion having its end bent inward and engaging with the outer surface of the bars parallel with the straight portion, substantially as described.

2. A coupling and pressure device for unit-

ing the clamping-bars of a clothes-pin, consisting of a single piece of resilient wire having a straight central portion of the same length as the width of the bars to be united, and having its ends bent at right angles thereto and each formed into a circular spring of a diameter substantially the same as the thickness of the bars and having the straight portion for a center, the portion of said wire beyond said springs being extended at a tangent thereto, and each extended portion having its end bent inwardly parallel with the other and with the straight central portion to engage with the outer surface of the bars, substantially as described.

In testimony of which invention I have hereunto set my hand.

JOHN SCHMID.

Witnesses:
J. L. STREEVER,
G. A. MCGAHEY.