(No Model.)

F. G. CALDWELL.

THUMB TACK.

No. 440,006. Patented Nov. 4, 1890.

Fig. 1.

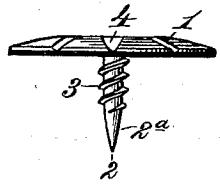


Fig. 2.

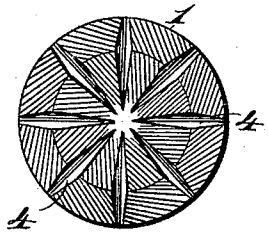


Fig. 3.

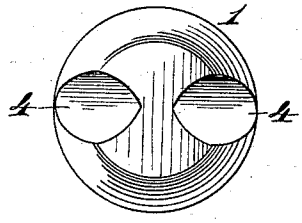
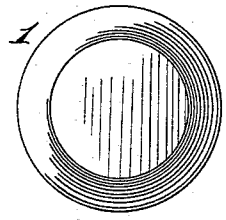


Fig. 4.



Witnesses.
Robt Everett.
J. A. Rutherford.

Inventor.
Frank G. Caldwell.
By James L. Norris.
Atty

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK G. CALDWELL, OF WHEELING, WEST VIRGINIA.

THUMB-TACK.

SPECIFICATION forming part of Letters Patent No. 440,006, dated November 4, 1890.

Application filed February 28, 1890. Serial No. 342,053. (No model.)

To all whom it may concern:

Be it known that I, FRANK G. CALDWELL, a citizen of the United States, residing at Wheeling, in the county of Ohio and State of West Virginia, have invented new and useful Improvements in Thumb-Tacks, of which the following is a specification.

My invention relates to certain improvements in thumb-tacks of the class ordinarily used by architects, mechanical draftsmen, and others.

It is the purpose of my invention to provide a novel device of this character, which shall combine the essential advantages of the well-known thumb-tack, which is driven directly into the drawing-board or other base of attachment with those of a thumb-screw, whereby the fastening is rendered strong, secure, and permanent, while the leading features of the thumb-tack are all preserved.

It is my purpose, in other words, to provide a simple and comparatively inexpensive device, having the flat head and insertible point of the ordinary thumb-tack, but provided, also, with a thread upon the pin, while the flat head is so formed as to afford a sufficient frictional hold whereby the insertible point may be driven into the wood by the pressure of the thumb or finger, and then screwed in by a rotary movement of the same until the desired hold is attained.

The invention is specially designed not only for draftsmen and others who are required to work upon paper of various weight mounted upon the drawing-board, from which the tacks are frequently drawn by the elasticity of the paper, but it is also well adapted for the attachment of placards and other advertising-sheets to a base of support which is capable of being penetrated by the ordinary tack heretofore in use.

It is well known that changes in temperature and humidity will cause a contraction of woody fiber which will release a tack driven therein so entirely that a slight warping of the paper will wholly withdraw it. It is one purpose of my invention to overcome this difficulty, and to provide a cheap, simple, and secure fastening, which shall take the place of the well-known thumb-tack, and afford a quick, easily-applied, and permanently secure fastening.

Referring to the drawings, Figure 1 is a side elevation of a combined thumb-tack and thumb-screw embodying my invention. Fig. 2 is a plan view of the same. Fig. 3 is a view showing a modified form. Fig. 4 is a view showing a further modification.

In the said drawings, the reference-numeral 1 denotes the flat head of the thumb-tack, which is usually formed of any suitable metal by striking it in a die.

The numeral 2 denotes the insertible point or pin, which is preferably made of steel and fastened centrally in the flattened head. The end of this pin or point is sharpened in the usual manner to give it a conical extremity 2^a, having such a small angle that it shall be readily insertible in soft wood. Above this conical point the pin is of substantially uniform diameter and is provided with a screw-thread 3, of low pitch, which extends to the lower face of the flat head 1, or nearly so. The exterior and slightly-convex face of the flat circular head is preferably provided with radial gooves or corrugations 4, or it is milled in any suitable manner to provide a frictional surface upon which the finger or thumb may have a secure hold in turning the threaded point or pin into the wood, and in removing it therefrom. This exterior face may, however, be provided with both the corrugations 4 and with milled surfaces between the same, or I may form diametrically-opposite recesses 5, as shown in Fig. 3, which will receive the ends of the finger and thumb.

The device is used in the same manner as the thumb-tack now employed by architects and draftsmen, save that after the point 2 is driven into the wood the fastening is turned by a rotary movement of the thumb, which is pressed upon the flat head until the threads 3 pass into the wood and draw the head against the paper with the required degree of force.

I may construct the flat head in the manner shown in Fig. 4 without milling or corrugation and of any desired convexity.

What I claim is—

1. A thumb tack and screw combined, consisting of a flat metallic head and a centrally-arranged pin or point having an insertible sharp extremity, and provided with a thread formed upon said pin above the sharpened point, substantially as described.

2. A thumb tack and screw combined, consisting of a flattened externally-corrugated head, having a central pin or point provided with a conical sharpened extremity and with a screw-thread above said conical point, substantially as described.

3. A thumb tack and screw combined, consisting of a flattened, externally milled, or corrugated head, having a central pin or point of steel provided with a sharp conical extremity and having a screw-thread extending from above said conical portion to the under face of the head, or substantially so, substantially as described.

4. A thumb tack and screw combined, consisting of a flattened head, having radial corrugations upon its exterior slightly-convex face, and provided with a central pin or point of suitable metal, having a sharp insertible conical extremity, said pin being of substantially uniform diameter above such conical portion, and being provided with a screw-thread, substantially as described.

5. As a new article of manufacture, a thumb tack and screw combined, consisting of a flat circular head 1, provided with an insertible point or pin 2, the latter having a sharp conical point 2^a, the pin being of substantially uniform diameter above the conical portion and provided with a thread 3, and the exterior slightly-convex face of the flat head being milled or provided with radial corrugations 4, with intermediate milled surfaces, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

FRANK G. CALDWELL.

Witnesses:
W. F. PETERSON,
L. S. DELAPLAIN.