P. L. ROBERTSON.

SCREW.

APPLICATION FILED OCT. 24, 1907.

975,285. Patented Nov. 8, 1910.

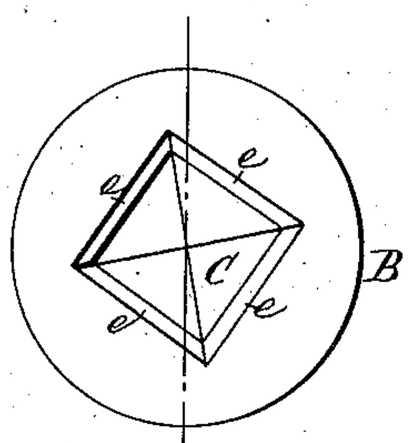

Fig. 2.

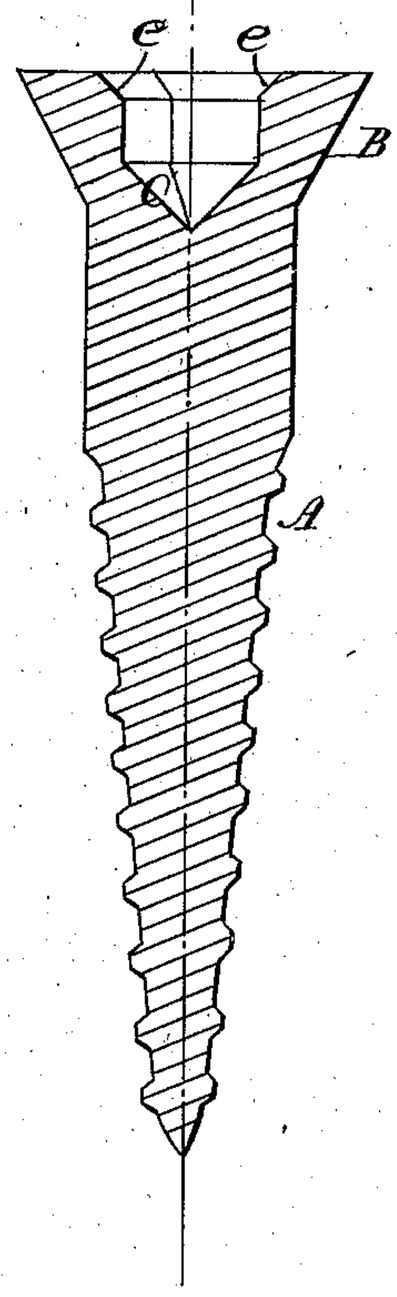

Fig. 1.

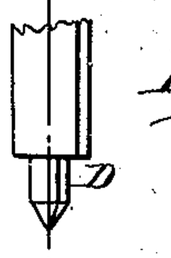

Fig. 4

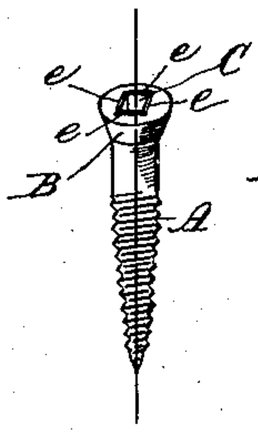

Fig. 3.

Witnesses,

Jas. Gadsby

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By Wm. Bruce,

Atty

UNITED STATES PATENT OFFICE.

PETER LYMBURNER ROBERTSON, OF HAMILTON, ONTARIO, CANADA.

SCREW.

975,285. Specification of Letters Patent. Patented Nov. 8, 1910.

Application filed October 24, 1907. Serial No. 399,010.

To all whom it may concern:

Be it known that I, PETER LYMBURNER ROBERTSON, of the city of Hamilton, Province of Ontario, Canada, have invented certain new and useful Improvements in Screws; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to screws, the heads of which have axial driving recesses or cavities instead of transverse slots punched therein and the invention consists in a recess or cavity extending into the screw head, the outer portion of the recess or cavity being prismatic and the inner portion thereof being pyramidal, the apex of the pyramid being in the axial line of the prism and of the screw. For full comprehension, however of my invention reference must be had to the accompanying drawings forming a part of this specification, in which similar reference characters indicate the same parts and wherein—

Figure 1 is an enlarged axial sectional view of a screw embodying my invention; Fig. 2 is a top view of the same; Fig. 3 is a perspective view thereof at reduced scale; and Fig. 4 illustrates the screw driver point I prefer to employ in connection with my invention.

The body A of the screw and the exterior of its head B are of usual construction and in the head is punched my improved axial recess C. The recess is square or prismatic in cross section throughout its depth the outer portions *a* of the four walls or sides being flat and equal in area and the inner portions *b* being also equal in area and sharply converging in pyramidal form to an axial point, the angle of convergence being approximately forty five (45°) degrees to the axial line of the screw. The outer edges of the recess are flattened or beveled as at *e* so that the driver will not come in contact with the extreme outside edge of the recess and in the event of the screw being struck with a hammer in starting it, as is the practice, there will be no danger of the edge being turned in to narrow the opening.

The advantages of forming the cavity with walls presenting the outer prismatic or square portion and the inner pyramidal portion converging at an angle of forty five (45°) degrees and also square in cross section, are: first, that during the punching of the cavity there is an equal distribution of metal in four directions laterally from an axial starting point instead of a compression altogether in advance of the punch: secondly, in driving the screw a combined effective turning power and centralizing effect is possible as well as an equal distribution of strain, the centralizing effect correcting any tendency of the screw to deflect from direct alinement with the driver and the vertical, horizontal and inclined corners, presented by the particular form of the walls, increasing the bearing surfaces for the driver.

What I claim is as follows:

A screw having a recess extending into its head, the outer portion thereof being prismatic to present four flat sides and the inner portion being pyramidal to also present four flat sides in continuation of and at angles of 45 degrees to the sides of the outer portion and the apex of the pyramid being in the axial line of the prism and of the screw.

Hamilton, Ontario, Canada, October 14th 1907.

PETER LYMBURNER ROBERTSON.

Signed in the presence of—
B. COULSON,
WM. BRUCE.