No. 844,243. PATENTED FEB. 12, 1907.

R. A. BREUL.

TRY SQUARE.

APPLICATION FILED APR. 26, 1906.

Fig. 1.

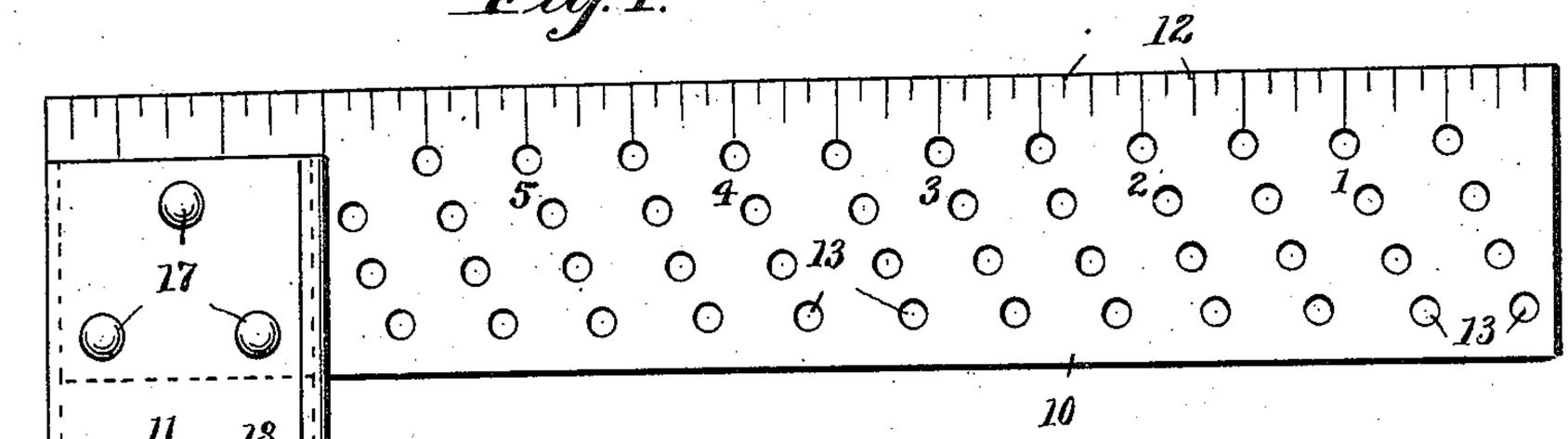

Fig. 2.

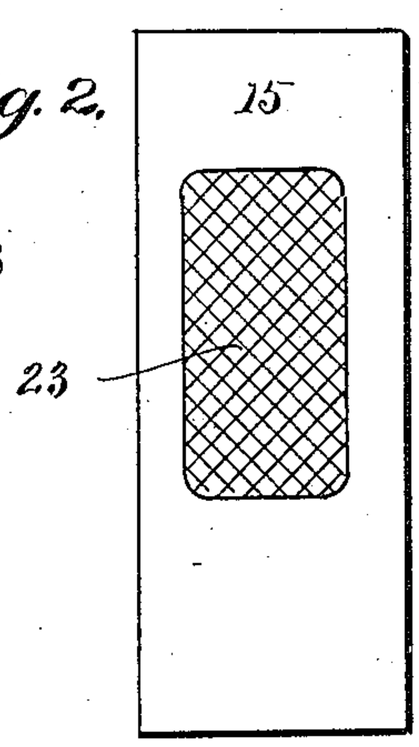

Fig. 3.

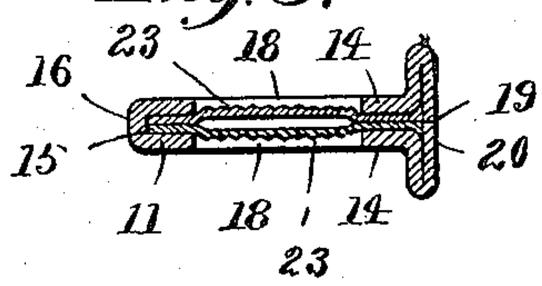

Fig. 4.

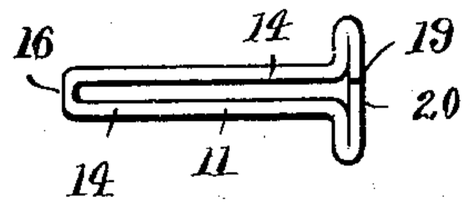

Fig. 5.

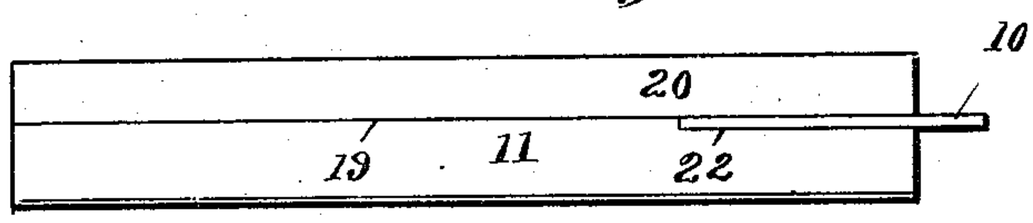

Fig. 6.

Fig. 7.

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TRY-SQUARE.

No. 844,243. Specification of Letters Patent. Patented Feb. 12, 1907.

Application filed April 26, 1906. Serial No. 313,771.

To all whom it may concern:

Be it known that I, RICHARD A. BREUL, a citizen of the United States, and resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Try-Squares, of which the following is a specification.

This invention relates to improvements in try-squares, such as are generally used by carpenters and other workmen in laying out work.

It is the object of my invention to produce an improved form of try-square which may be constructed from sheet metal in a simple and inexpensive manner, which may be especially adapted for marking longitudinal as well as transverse lines, to provide a graduated blade and means—such, for instance, as a hole for each one-eighth of an inch graduation—whereby each of said graduations can readily be located, and a pencil supported in line therewith for marking lines parallel with the back of the square; further, to provide a metal try-square with an improved construction of back or handle which will afford a more desirable grip or engagement for the hand of the user than is now contained in squares of this class.

With the above objects in view my invention resides and consists in the novel construction and arrangement of parts shown upon the accompanying sheet of drawings, forming a part of this specification, upon which similar characters of reference denote like or corresponding parts throughout the several figures, and of which—

Figure 1 shows a side elevation of my improved square complete. Fig. 2 shows a detached side elevation of a filling-piece used intermediate of the back of the square. Fig. 3 is a transverse cross-section taken on line 3 3 of Fig. 1, illustrating the construction of the back, including the manner of supporting the filling-pieces shown in Fig. 2. Fig. 4 is a bottom end view of the back shown in Fig. 1. Fig. 5 is an inner edge view of the square as seen from the inner or right-hand side, as shown in Fig. 1. Fig. 6 is a further bottom end view of a back-section, illustrating a modified construction wherein the back is formed of two pieces and the line of engagement of the inwardly-disposed edges is central of said blade. Fig. 7 is an inner edge view of the square illustrated in Fig. 6, showing both of the inwardly-disposed abutting edges of the back cut away slightly to form a pocket for the blade.

Referring in detail to the characters of reference marked upon the drawings, 10 indicates a blade which is obviously disposed at a right angle to the back 11. The blade is provided with a series of graduations 12, which represent inches and fractions of an inch, including one-eighth of an inch. The blade contains a number of holes 13 therethrough, which are preferably arranged in both longitudinal and diagonal lines. Each one of these holes is located opposite to one of the one-eighth of an inch graduations and is designed to receive the point of a pencil and guide the same in line with its particular graduation when the square is moved along and guided by the engagement of the inner edge of its back with the board or other object to be marked. There are four holes in each diagonal row or series, and each of such series obviously covers one-half of an inch or four one-eighths marks. By arranging the holes in the above manner the holes can be more uniformly distributed and in a manner to not materially weaken the blade, and likewise affords a convenient and desirable tool. The peculiar arrangement of these holes facilitates finding any one corresponding to the desired graduation-mark. It will be noted that the full and half inch marking holes are in one line parallel with the edges of the blade, the one-eighth marking-holes next above these disposed in another row, the one-eighth graduation-holes below such full and one-half inch marks arranged in another row, while all the holes denoting one-quarter-inch graduations compose also on separate row. Thereby no error can be made and familiarity with the device at once obtained.

The back 11 is formed of sheet metal and comprises the parallel opposite sides 14, which are preferably formed from a single piece of sheet metal, and the intermediate filling-pieces 15, which are arranged intermediate such sides. The said back, when formed of a single piece, is bent longitudinally along its middle portion to form the outer straight edge 16. Said sides are disposed parallel to each other at a uniform distance apart and extended upon opposite sides of the inner end of the blade, to which they are secured by means of rivets 17, as shown. An orifice 18 is formed through each of such sides, and the intermediate pieces 15 are stamped

up or knurled to form a roughened surface 23 of a shape and size to conform to and preferably extend into such orifice to form a roughened engaging surface for the hand of the user.

The inner edge portions of the sides of the back are deflected out at substantially a right angle and are then turned back upon themselves to form reinforced flanges with the edges deflected against each other to form a straight vertical or longitudinal seam 19 in the face of the inner flanged straight edge 20 of the back. This back may be so proportioned and disposed as to bring the seam central with the blade, as shown in Figs. 6 and 7, in which case a shallow pocket 21, to accommodate the blade, would be formed in the upper edge portion of each of said edges, or said seam can be formed in line with the face of the blade, as seen in Figs. 4 and 5, in which case a pocket 22 in one of said edges only would be necessary.

The sides of the back shown in Figs. 6 and 7 are shown as formed of two pieces instead of but one, as indicated in the preceding figures, and I do not wish to be limited in this respect, since either is practicable and both equally come within the scope of my invention.

The lower portion of the back may be provided with means for securing it together, in addition to the rivets 17 shown; but in practice I find that additional rivets are not particularly necessary. As shown in Fig. 3, the roughened portion of the filling-pieces is raised above the surface of these pieces. Such raised portion being of just the same size as the orifices in the back 11, the filling-pieces are immovably held in place thereby. For convenience these filling-pieces may be made of a single piece of sheet metal, such being folded at any of its edges. In case the back is formed of a single piece of sheet metal such filling-pieces are inserted before the final closing of the back.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a try-square, the combination with a blade, of a back formed of sheet metal folded together along its outer edge to form two parallel side portions, the inner edge portions of such back being turned out at a right angle and folded back upon themselves with their two ends disposed flush against each other to form a broad straight inner edge.

2. In a try-square, the combination with a blade, of a back formed of a single piece of sheet metal folded together along its outer edge to form two parallel side portions, the inner edge portions being turned outward at a right angle and folded back upon themselves with the two edges disposed together and in line with the center of the blade, said side portions containing a pocket to receive the blade.

3. In a try-square, the combination with a blade, of a back formed of sheet metal disposed to form two parallel sides, the inner edge portions of such sides being turned out at a right angle and folded back upon themselves with their two edges disposed flush against each other to form a broadened reinforced straight edge at a right angle to the blade, a pocket being formed intermediate of the upper part of said side portions to receive the blade.

4. In a try-square, the combination with a blade, of a back formed of sheet metal disposed to form two parallel side portions having orifices therein and provided with orifice-filling pieces intermediate such side portions, and having a roughened surface disposed in such orifice.

5. In a try-square, the combination with a blade, of a back having orifices and formed of sheet metal bent longitudinally through its central portion and having its inner side portions deflected out and folded over upon themselves with the edges disposed against each other, plates intermediate of said side portions and having a roughened surface disposed across the orifices therein substantially as described.

6. In a square, the combination of a back formed of sheet metal folded together along its outer edge to form two parallel sides, said sides being turned out at a right angle adjacent to the inner edge and folded back upon themselves with the two ends disposed flush against each other to form a broad straight inner face, such adjoining side portions being provided with a pocket.

7. In a try-square, the combination with a blade, of a back formed of sheet metal folded together along its outer edge and the two side portions turned out at a right angle adjacent to their inner edges and folded back upon themselves with the two ends disposed flush against each other, a plate intermediate such side portions and having a roughened portion disposed in orifices contained in said side portions.

8. In a try-square, the combination of a back formed of sheet metal folded together along its outer edge and the two portions turned out at a right angle adjacent to its inner edge and folded back upon themselves with the two ends disposed flush against each other, in line with the center of the blade, part of such side portions being cut out to form a pocket and a blade seated in such pocket.

9. In a square of the class described, the combination with a blade having a series of graduations thereon including one-eighth of an inch, consisting of a series of four holes diagonally arranged across the blade for each one-half inch thereof so graduated and adapted to serve for marking in line with said one-eighth marks.

10. In a square, a graduated blade having four rows of holes lengthwise of and parallel with its edges so arranged that the holes of one of said rows are in line with the full and the half-inch graduation-marks, those of another in line with the quarter-inch marks, the holes of a third in line with eighth and three-eighth part of an inch marks, and the holes of the fourth row corresponding to the three-eighth and seven-eighths part of an inch marks, so adjusted as to permit marking through said blade-lines parallel with the back of the square.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 25th day of April, A. D. 1906.

RICHARD A. BREUL.

Witnesses:
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RUTH RAYMOND.