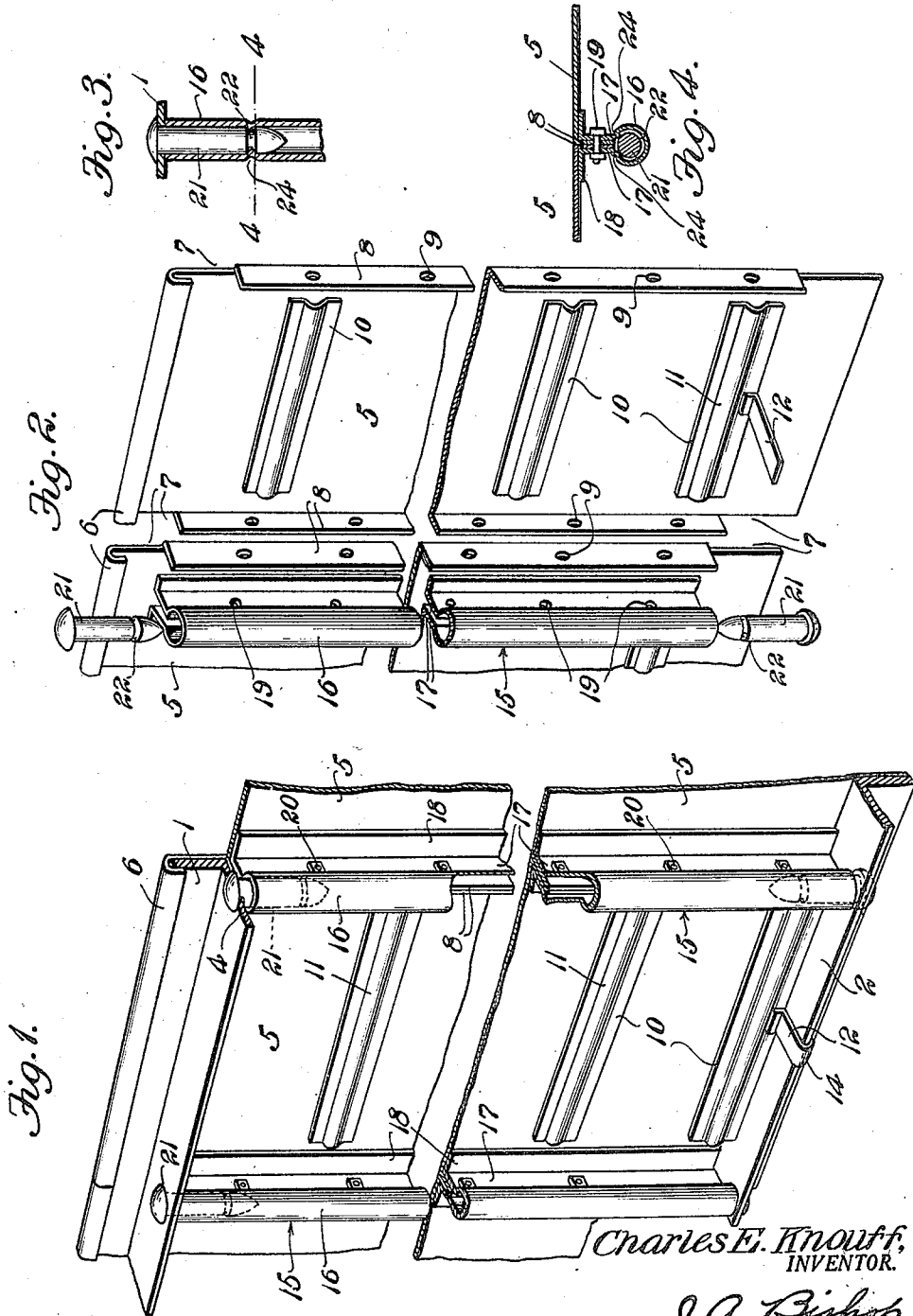


1,407,548.

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CHARLES E. KNOUFF, OF CANTON, OHIO.

SIGNBOARD.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES E. KNOUFF, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented a new and useful Signboard, of which the following is a specification.

This invention relates to sign boards and has for its object the construction of a device of this class that will have the maximum amount of rigidity and at the same time requiring only a minimum of weight.

Another object is the construction of a sign board in sections that will readily fit together so that the said sign board may be quickly assembled without the use of special tools or appliances and with a minimum of labor.

A further object is the construction of a device of this character in standard, interchangeable units, thus permitting the removal of any section of a given board and its replacement with other units bearing new advertising matter.

In the drawings, Fig. 1 is a fragmentary perspective taken from the rear of my board.

Fig. 2 is a similar view showing one of the sheets with the next adjacent sheet spaced slightly therefrom and the clamping strip removed.

Fig. 3 is a vertical section through the upper end of a clamping member and upper angle iron and showing a locking pin in position.

Fig. 4 is a cross section on the line 4—4 of Fig. 3.

Similar numerals indicate corresponding parts throughout the several figures of the drawing, in which 1 indicates the upper angle bar and 2 the lower angle bar of a sign board. A plurality of apertures 4 are formed at predetermined points in each of these bars, the said apertures being for a purpose to be hereinafter set out. The portion of the board upon which the advertising matter will be displayed will preferably be formed of metal sheets of the ordinary thickness of sheets usually employed for this purpose, the said sheets being indicated generally at 5. The upper edge of each of these sheets is turned backwardly and downwardly as shown at 6 to form a supporting flange which is placed over the vertical rib of the upper angle bar 1, as shown in Fig. 1.

Referring now to Fig. 2, it will be seen that both the upper and lower corners of

the sheet 5 are cut away as indicated at 7, and the sides of each sheet between the cut out portions are turned backwardly at right angles to the body of the sheet, thus forming a vertical flange 8 at either side of the sheet. The abutting flanges of adjacent sheets will fit closely together when assembled and elongated apertures 9 in the flanges will register in adjacent pairs of flanges. Secured to the rear side of each sheet are strips 10 which will be formed of sheet metal and will be each provided with a reinforcing rib 11. The strips will preferably be attached by spot welding to the sheets 5. A tongue 12 attached to the lowermost strip, is bent rearwardly to lie in a horizontal plane at right angle to the sheet and is designed to rest upon the upper side of the horizontal rib of the lower angle bar and to be bent downwardly as shown at 14 when the sheet is in place on the board.

Indicated generally at 15 is a clamping strip which I employ to secure each abutting pair of flanges together. This clamping strip is formed with a cylindrical bead portion 16 from the forward side of which projects a pair of substantially parallel web portions 17 which are turned outwardly at their forward edges, forming flanges 18. Apertures 19 are formed in the web portions and when the clamping strip is placed in position, as shown in Fig. 1, with a pair of flanges 8 interposed between the web portion 17 of the said strip, apertures 19 in the webs will register with corresponding apertures 9 in the flanges of sheets 5 and a bolt 20 will then be inserted through each aperture and a nut threaded on to draw the webs into close contact with the flanges.

With the bead 16 acting in a measure as a spring, the tendency of the webs 17 will be to spring apart, so that when unattached the said webs will be spaced one from the other a distance slightly greater than the combined thickness of two of the flanges 8. There is a double advantage in this last named feature, one being that the clamping strip may be quickly and easily removed from the flanges when the bolts 20 are withdrawn. The second advantage will be set forth below.

Particular reference now being made to Figs. 2 and 3, a locking pin 21 is shown, having an enlarged head at one end and being tapered substantially to a point at the other end. In the cylindrical portion

of the pin, at a point adjacent the tapered end I form an annular groove 22 which groove is designed to be engaged by indented lugs 24 formed at predetermined points in the bead 16 of the clamping strip.

In assembling my sign board the usual upper and lower angle bars 1 and 2 respectively will be set up, their distance apart representing the height of the sign board. The curled flange 6 on each sheet 5 is then hooked over the vertical rib of the bar 1, the upper extremity of each of the flanges 8 on the sheet being in contact with the under side of the said bar while the lower extremities of the said flanges rest upon the upper side of the lower bar 2. The tongue 12 of the lower strip 10 is now also lying upon the upper face of the bar 2 and projecting slightly beyond the rear edge of the said bar. With a hammer or other suitable instrument, the rear end of the tongue is now bent down and around the rear edge of the bar 2. The sheet is thus positively anchored at the top and bottom to the bars 1 and 2 respectively.

The next sheet is now attached in the same manner as the first sheet, the adjacent flanges on the two sheets being in contact. One of the clamping strips 15 is now positioned over the abutting flanges 8 and bolts 20 are inserted through the apertures 9 and 19 and the webs 17 are tightened firmly against the said flanges. The apertures 4 in the bars 1 and 2 are made to occur at each joint between two of the sheets 5 and when the clamping strip 15 has been positioned as just described, an aperture 4 will exactly register with each open end of the bead 16 on the strip. A locking pin 21 is now inserted through each aperture. A tap upon the head of the pin with a hammer will cause the tapered end of the pin to enter as a wedge and force the pin inwardly until the indented lugs 24 formed in the bead 16 will snap into the annular groove 22 in the said pin.

Upright angle bars, not shown in the drawing, will be employed at either end of the board and will be provided with apertures made to register with the apertures 9 in the flanges of the sheets so that the end sheets can be readily bolted to the upright angles, or a clamping strip may be employed as in joining two flanges.

From the foregoing description, it will be apparent that my sign board can be very quickly and easily erected. The parts will all be made standard in size and will be interchangeable and the board can then be

made any length desired by simply adding additional units. It will also be seen that sections may be readily removed and replaced with new sections with a minimum of time and labor. A very important feature of my device resides in the fact that with my construction of sign board, the painting of the advertising or display matter can be done at a centrally located work shop and the board can then be disassembled and shipped to any point desired, to be erected. Since all of the units are made standard in size, it is thus seen that should the rental for any part space on the board expire, a new sign may be painted at the shop and shipped to the point of erection and substituted for the old display.

As stated above, by forming the clamping strip 15 so that the bead portion 16 acts in a measure as a spring, when the bolts 20 are loosened the indented lugs 24 spring out of the groove 22 and allow the pin to be easily withdrawn when taking the board apart.

Having now described my invention what I claim is:

1. In a sign board of the character described, spaced strips, a plurality of flanged sheets supported on said strips, alined apertures formed in abutting flanges on said sheets, a clamping strip designed to fit over said abutting flanges, apertures formed in said clamping strip and alined with said first apertures, bolts extending through said alined apertures and securing said sheets together and to said clamping strip, apertures formed in said spaced strips in alinement with said clamping strip and pins fitting through said last mentioned apertures and within said clamping strip and being held therein by frictional engagement therewith.

2. In a sign board of the class described, spaced strips and a plurality of sheets supported on said strips, clamping strips comprising rounded spring bead portions and webs projecting from said bead portions, means for securing said sheets together by said clamping strips, inwardly projecting lugs formed in said bead portions adjacent their ends, pins adapted to be inserted through apertures in said spaced strips and to enter the extremities of said beads, annular grooves formed on said pins and designed to be engaged by said lugs said lugs being held in said grooves by the spring pressure of said beads.

In testimony that I claim the above, I have hereunto subscribed my name.

CHARLES E. KNOUFF.