(No Model.)

C. B. ALBREE.

BLANK FOR TURNBUCKLES.

No. 549,888. Patented Nov. 19, 1895.

Fig 1.

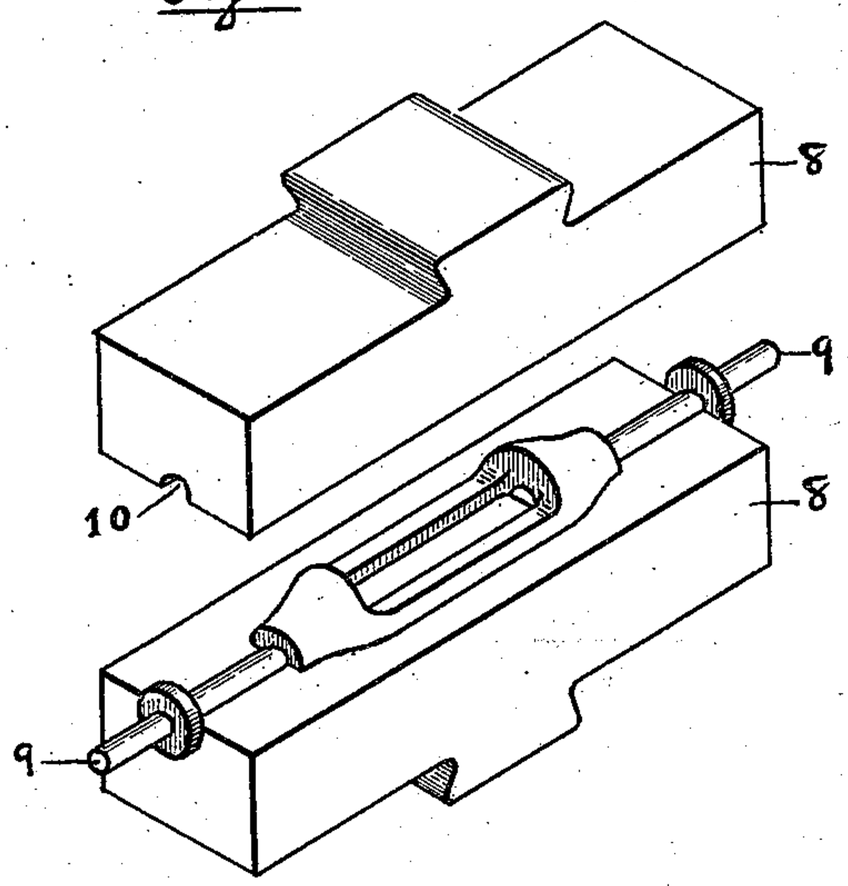


Fig 2.

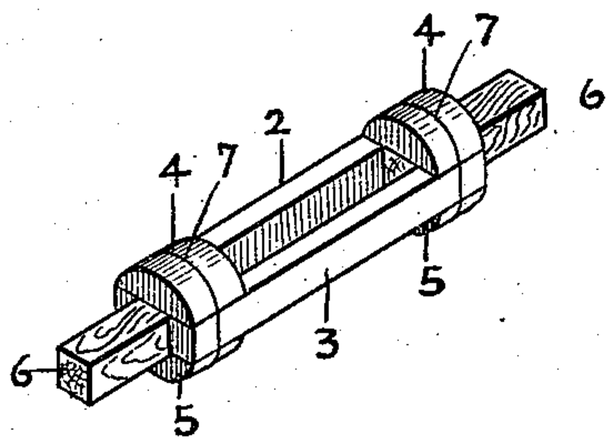


Fig 3.

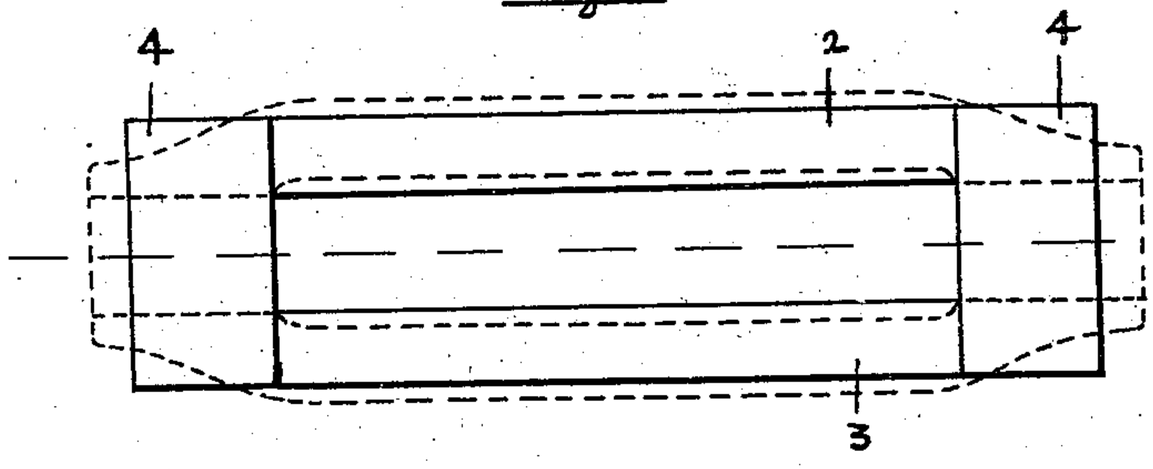


Fig 4.

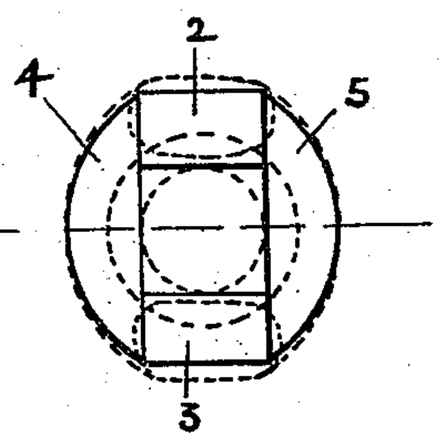


Fig 5.

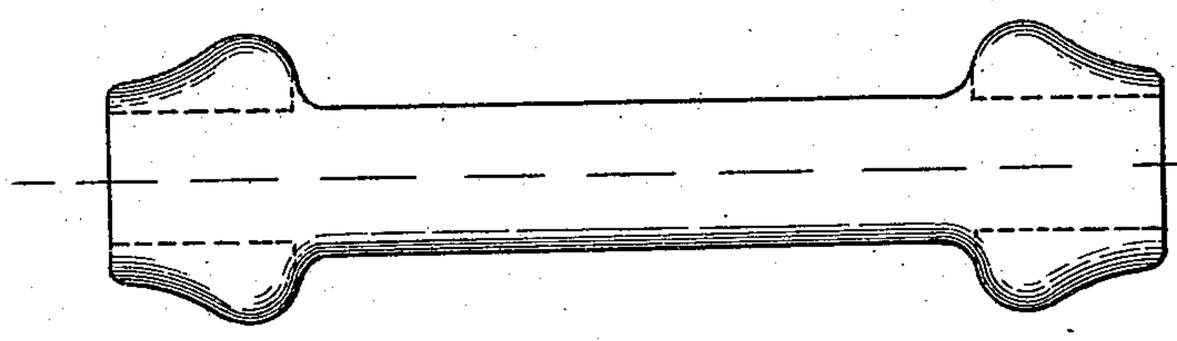
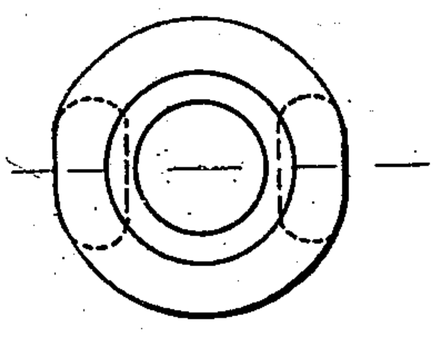


Fig 6.



WITNESSES

Thomas W. Bakewell

Samuel K. Bakewell

INVENTOR

Chester B. Albree.

UNITED STATES PATENT OFFICE.

CHESTER B. ALBREE, OF ALLEGHENY, PENNSYLVANIA.

BLANK FOR TURNBUCKLES.

SPECIFICATION forming part of Letters Patent No. 549,888, dated November 19, 1895.

Application filed January 31, 1895. Serial No. 536,881. (No model.)

To all whom it may concern:

Be it known that I, CHESTER B. ALBREE, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Blanks for Turnbuckles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a set of turnbuckle-dies containing a turnbuckle which has been made according to my invention. Fig. 2 is a perspective view of the blank. Fig. 3 is a plan view of the blank, illustrating by dotted lines the manner in which the metal is caused to flow when the blank is compressed in the dies. Fig. 4 is an end view thereof. Fig. 5 is a view showing the finished turnbuckle in side elevation. Fig. 6 is an end view of the finished turnbuckle.

In my improved method of making turnbuckles the blank is composed of a number of assembled pieces, as shown in Fig. 2. Thus I set two bars of iron 2 3 parallel with each other in the position desired to be occupied by the straps of the buckle, and place two iron blocks 4 5 on opposite sides of the end portions of the bars extending between and connecting the same. Plugs 6 6, of wood, clay, or other destructible or removable material, are placed in the end holes between the side bars and blocks, in order, by filling these holes, to enable the parts to be held together, and the blocks 4 5 and side bars are then tied together by bands or wires of metal 7 7. When the parts have been assembled in this manner, the composite blank is placed in a heating-furnace and is raised to a welding heat, and by this the parts of the blank are caused to adhere to each other, the bands 7 7 are usually burned off, and the plugs 6 6, being of wood or other material, are destroyed or removed. The heated blank is then placed in dies 8 8, the shape of whose matrix is that of the finished buckle. Mandrels 9 9 are inserted into the holes at the ends of the blank, and then, by forcible lateral compression of the dies, the parts of the blank are solidly welded together, and, by being squeezed into the cavities of the dies and against the mandrels, the ends are reduced to the shape proper for the nuts or heads of the buckle. The mandrels are then withdrawn, and the then completely-forged article is removed from the dies and is ready to be tapped in the usual manner. The dies which I use are clearly illustrated in Fig. 1. The end portions of the matrix are of the form of the finished ends of the buckle. The cavities for the side bars are preferably shaped so as to flatten the bars somewhat and to afford clearance to the metal, and at the end of the matrix-cavity are grooves 10 to receive and hold the mandrels.

It should be understood that the shape of the dies may be modified in order to produce buckles of other forms, that they may be adapted to the manufacture of rope-sockets and clevis-nuts by the same method as above described, that instead of using blocks 4 5 having curved surfaces, other suitably-shaped blocks may be employed, that the pieces of the blank need not be of such nature as to afford square end holes, and may be shaped differently from those shown in the drawings, and that the process may be otherwise modified within the scope of the invention, as stated in the claim.

The advantages of the invention are that it affords a very cheap and effective mode of making turnbuckles, the blanks are easy to assemble, and are constituted of cheap and easily-obtainable forms.

The blank constituted as described above can also be shaped and welded in side-working dies in a machine of ordinary construction, and I am thus enabled to dispense with the use of expensive apparatus.

I claim—

A blank for the manufacture of turnbuckles, the same comprising parallel separated side-bars having separate metal blocks placed on opposite sides of the end portions of the side-bars; substantially as described.

In testimony whereof I have hereunto set my hand.

CHESTER B. ALBREE.

Witnesses:
THOMAS W. BAKEWELL,
W. B. CORWIN.