

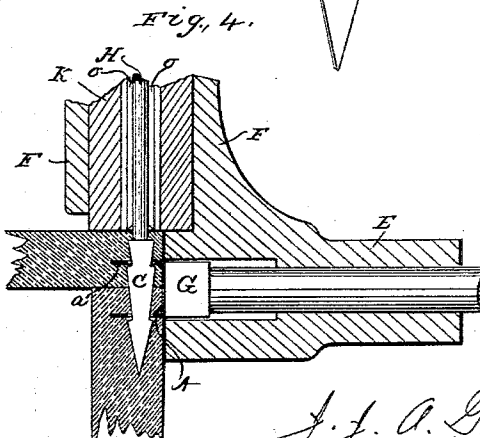
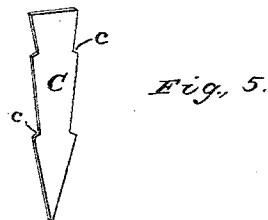
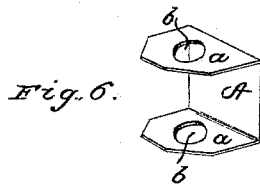
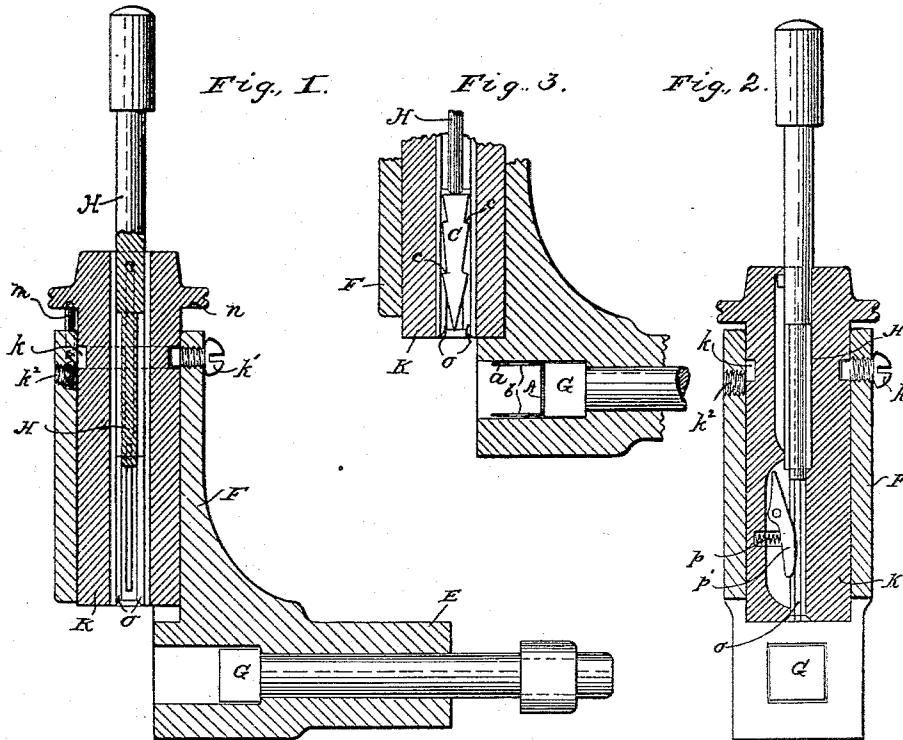
(No Model.)

J. J. A. GUIBAUD.

METALLIC FASTENING AND DRIVING TOOL THEREFOR.

No. 532,052.

Patented Jan. 8, 1895.



Witnesses.

W. R. Edger.

Geo. Lewis.

Inventor.

J. J. A. Guibaud

By J. J. A. Guibaud

his attorney

UNITED STATES PATENT OFFICE.

JEAN JULES ANTOINE GUIBAUD, OF BORDEAUX, FRANCE.

METALLIC FASTENING AND DRIVING-TOOL THEREFOR.

SPECIFICATION forming part of Letters Patent No. 532,052, dated January 8, 1895.

Application filed April 13, 1894. Serial No. 507,424. (No model.) Patented in France January 30, 1893, No. 227,486.

To all whom it may concern:

Be it known that I, JEAN JULES ANTOINE GUIBAUD, a citizen of France, and a resident of Bordeaux, Department of Gironde, in the Republic of France, have invented a new and useful Improvement in Metallic Fastenings or Seals for Packing-Cases, Trunks, &c., (patented in France January 30, 1893, No. 227,486,) which improvement is fully set forth in the following specification.

This invention relates to means for sealing or fastening boxes or cases in such manner as to insure the contents thereof against tampering in course of transportation or storage.

The object of the invention is to obtain security to shippers by means of fastening devices, but little more costly than screws or wire nails, which secure the box or case in such manner that it cannot possibly be opened without leaving very evident traces of the fact.

The fastening devices hereinafter described are intended to take the place of screws or nails, and to obviate the necessity of hooping the boxes or cases.

The elements of the invention are a staple of soft sheet steel having holes in the two parallel sides of the staple; a double-barbed or stepped lance of hard steel, and a tool or appliance by which the staple and lance are driven into the box in proper relation to each other to secure the objects of the invention.

In the accompanying drawings, which form part of this specification, Figure 1 is a sectional view through the tool. Fig. 2 is a section taken transversely to Fig. 1. Fig. 3 is a section similar to Fig. 1 of a portion of the tool showing the staple and lance in position therein. Fig. 4 illustrates the manner of applying the fastening device to a box, and Figs. 5 and 6 are details of the lance and staple respectively.

The staple A is made of comparatively soft sheet steel bent to the shape shown, so as to form two parallel legs or sides *a*, each having a perforation *b*, and the two perforations being in line. The lance C is stamped out of a sheet of hard steel. It has two barbs *c*, the greatest width being slightly greater than the diameter of perforations *b* in the staple. The

distance between the two barbs is about the same as the distance between the two legs of the staple.

In use the staple is intended to be driven into the box in such manner that one leg enters the side and the other the lid or bottom of the box. (See Fig. 4.) The lance is then driven through the lid or bottom (as the case may be) and into the side, just as a screw or nail is inserted to fasten the two parts together. It is, however, so driven as to pass through the perforations of the staple, and since the barbs *c* are wider than these perforations, and the lance is made of hard steel, the barbs tear their way through the legs of the staple and the shoulders of the barbs are caught by the rims of the perforations, preventing the withdrawal of the lance. This is rendered the more difficult because the top of the lance presents a very thin edge which is driven beneath the surface of the wood, so that there is nothing to take hold of to withdraw the lance.

Inasmuch as the legs of the staple, and the perforations through which the lance must be driven are buried in the wood when the latter is applied, it is evident that to complete the system and render it practical, means must be provided whereby the staple and lance can be expeditiously and accurately applied. This is the function of the instrument shown in Figs. 1, 2, 3 and 4. This tool consists of a frame or casting having two tubular arms E, F at right angles to each other, a plunger G in the arm E and a plunger H in the hollow arm F. The arms E, F have faces *e*, *f* respectively, forming a right angle, and adapted to fit against the edge of the box as indicated in the drawings. The chamber of arm E is of proper size and depth (when the plunger G is drawn back as shown in Fig. 1) to receive the staple, which is placed therein with its points or legs outward. The arm F contains a hollow sleeve K in which works the plunger H by which the lance is driven into the box. The relative positions and range of movement of the plungers G, H are such that when the staple has been driven into the box, the axis of plunger H will be in

line with the centers of the perforations or eyelets *b*.

It may be desired to vary the position of the staple according to the thickness of the lid or bottom of the box. The sleeve *K* is therefore made adjustable lengthwise. It is also made rotatable in arm *F*, so as to change the direction of the lance according to the grain of the wood. These adjustments may be made in various ways. As shown, the sleeve *K* has an annular groove *k* into which takes the end of a holding screw *k'*, which holds the sleeve in the lengthwise position to which it is adjusted while permitting it to be turned. Several holes *k*² are provided in arm *F* for the screw *k'*, and as these holes are at different distances from the end of the arm, the sleeve can be adjusted lengthwise as may be desired. A spring pin *m* in the end of arm *F* engages one of a series of holes in the under side of the disk *n*, and holds the sleeve in the position to which it is turned. The sleeve *K* has grooves *o* diametrically opposite each other, to receive the edges of the lance, and a light spring *p* and lever *p'* are provided to bear against the edge of the lance and prevent its dropping out.

To apply the fastening devices the plungers are drawn back and the lance and staple placed in the tool. The latter is then set square against the edge of the box in such position that the plunger *F* is vertical. The staple is first driven in by a blow with a mallet upon the head of plunger *E*, and then the lance is driven home by a blow or blows on the head of plunger *F*. Finally a last blow is struck on plunger *E* which further cuts and tears the staple, and disturbs its position relatively to the lance. It is thus impossible to extract either the lance or staple, as each locks the other firmly in place, and to remove the lid it is necessary to tear the staple and lance forcibly through the wood of the box, thus leav-

ing ineffaceable signs that the box has been tampered with.

What I claim is—

1. The described means for fastening and sealing wooden boxes consisting of a staple having eyelets in its parallel sides or legs, which are adapted to be driven into the lid and side of the box respectively, and the barbed lance, adapted to be driven through said eyelets, as set forth.

2. The combination with the staple made of soft sheet steel and having eyelets in its parallel sides or legs, of the flat lance having two barbs slightly wider than said eyelets, said lance being made of harder steel or metal than the staples, substantially as and for the purpose described.

3. The tool for sealing boxes by means of the interlocking lance and staple, said tool comprising hollow arms at right angles to each other, and adapted to receive the lance and staple respectively, the latter being held in such a position that the perforations in the legs thereof are in a line parallel with the lance, and plungers, one in each arm moving in lines intersecting each other at right angles to drive the lance through the perforation in the legs of the staple, substantially as described.

4. The combination of the hollow arm and its plunger for applying the staple, another hollow arm at right angles to the first, an adjustable sleeve therein adapted to receive and guide the lance, and a plunger working in said sleeve, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JEAN JULES ANTOINE GUIBAUD.

Witnesses:

GEORGE R. OSTMAMA,
CLYDE SHROPSHIRE.