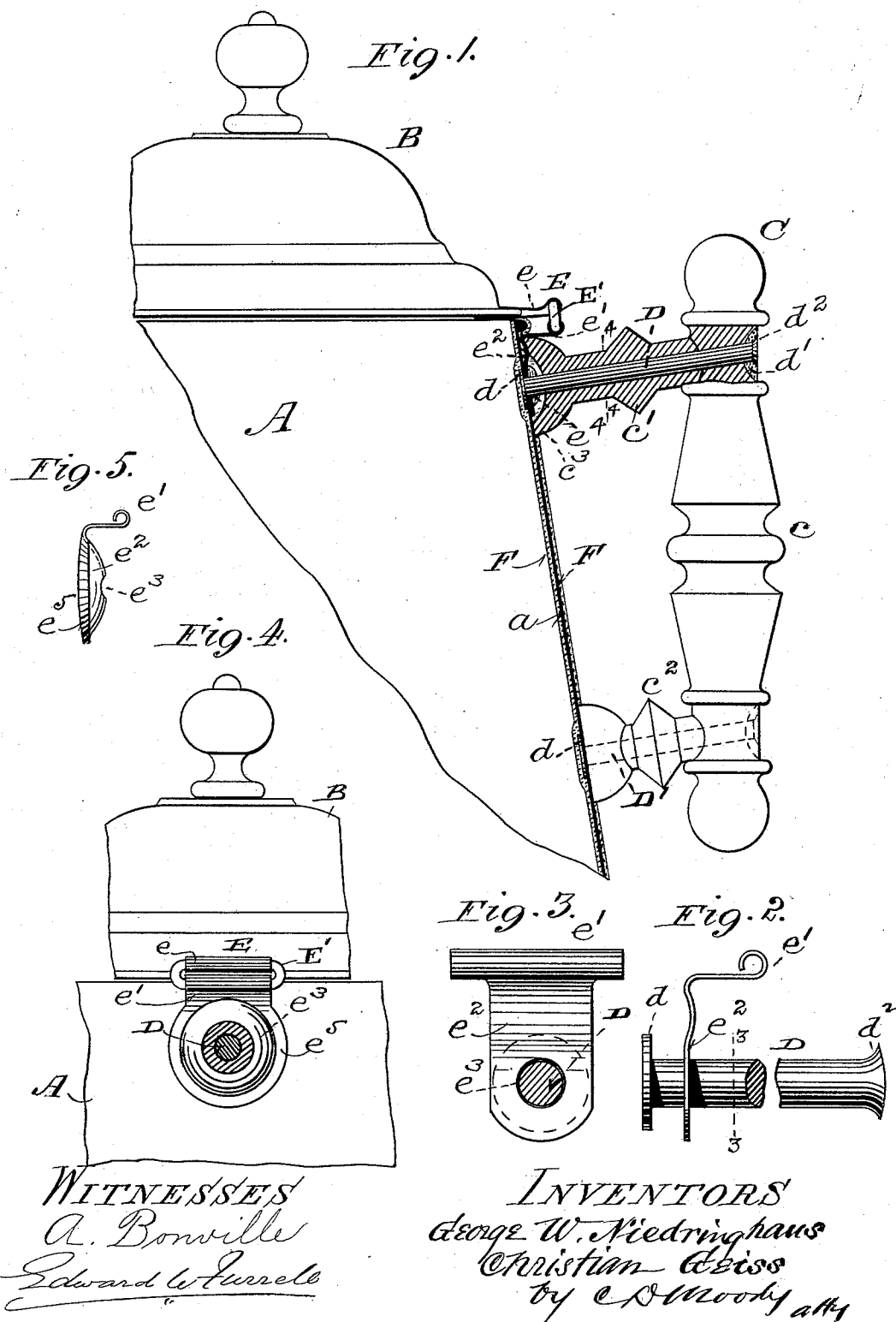


(No Model.)

G. W. NIEDRINGHAUS & C. GEISS.  
ATTACHING HANDLES AND COVERS TO SHEET METAL OR OTHER VESSELS.  
No. 463,126. Patented Nov. 10, 1891.



# UNITED STATES PATENT OFFICE.

GEORGE W. NIEDRINGHAUS AND CHRISTIAN GEISS, OF ST. LOUIS, MISSOURI.

ATTACHING HANDLES AND COVERS TO SHEET-METAL OR OTHER VESSELS.

SPECIFICATION forming part of Letters Patent No. 463,126, dated November 10, 1891.

Application filed March 12, 1891. Serial No. 384,784. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE W. NIEDRINGHAUS and CHRISTIAN GEISS, of St. Louis, Missouri, have jointly made a new and useful Improvement in Attaching Handles and Covers to Sheet-Metal and other Vessels, of which the following is a full, clear, and exact description.

A leading feature of the improved construction is the combination of parts whereby the cover and handle are jointly attached to the vessel-body, substantially as is hereinafter described and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a sectional elevation of a vessel having the improvement embodied therein, only that portion of the vessel which is needed for an understanding of the improvement being exhibited; Fig. 2, a side elevation showing the upper rivet and the hinge-leaf applied thereto, but not in position thereon; Fig. 3, a section on the line 3 3 of Fig. 2; and Figs. 4 and 5, views illustrating a modification, Fig. 4 being a vertical section on the line 4 4 of Fig. 1 and Fig. 5 an edge elevation of the lower leaf of the cover-hinge. The same letters of reference denote the same parts. Figs. 2 and 3 are upon an enlarged scale.

The vessel-body A and the vessel-cover B are of any of the usual constructions, saving as they may be supplemented by the improvement under consideration. The handle C also may be variously modified without departing from the principle of the improvement. In the present instance the handle is substantially of wood, and it is secured to the vessel-body by means of the rivets D D'. The handle is composed of the upright part c, which is the portion grasped in the use of the vessel, and two parts c' c<sup>2</sup>, which extend horizontally between the upright part and the vessel-body. The parts c c' c<sup>2</sup> are usually distinct parts united by the rivets. The rivets project outward through the shell a of the vessel-body, each having a head d, which comes against the inner surface of the shell a and extend, respectively, through the handle parts c' c<sup>2</sup> and thence crosswise through the handle part c, and the handle is fastened

tightly in place by forming a shoulder d' upon the outer end of each of the rivets. This shoulder in practice is composed of solder applied to the flattened or burred end d<sup>2</sup> of the rivet, and the handle is preferably adapted, as shown, to enable the described shoulders to be countersunk in the part c. In this manner the handle, even when made in parts, is very firmly fastened to the vessel-body. The vessel-cover B is attached in place by means of the hinge E. The leaf e, to which the cover is immediately attached, is of the ordinary form, its outer end being bent about the upper portion of the horizontally-elliptical wire E'. The other leaf e' of the hinge is at its outer end bent about the lower portion of the elliptical wire E' and at the other end provided with an extension e<sup>2</sup>, which projects downward and is perforated at e<sup>3</sup> to enable the extension to be passed onto the rivet D. Said extension e<sup>2</sup> is better held in place by means of solder e<sup>4</sup>, which serves to rigidly unite the extension and the rivet. The extension is preferably made to come directly against the outer surface of the shell a. The hinge which holds the cover is thus very readily and also very securely fastened in place. The same means—namely, the rivet D—used to secure the handle are used to secure the hinge-leaf and the handle in turn and in conjunction with the rivet assists in confining the hinge-leaf.

If desired, the hinge-leaf extension e<sup>2</sup>, in the place of being sufficiently narrow to be covered by the inner end c<sup>3</sup> of the handle part c', can be widened, as shown at e<sup>5</sup>, Figs. 4 and 5, in which modification the circumferential portion of said extension may appear, as shown, around the handle part c<sup>3</sup>, and the extension e<sup>2</sup>, in the place of being flat, as shown in Figs. 2 and 3, may be convexed, as shown, to engage in the inner end c<sup>3</sup>, which is suitably constructed to coact therewith.

The present improvement is well adapted to enameled ware. An enamel coating is represented at F.

We claim—

In combination with the vessel-body A, the handle C, having upright part c and horizontal parts c' c<sup>2</sup>, the rivets D, respectively passing

through said parts and connecting the handle to the body A, the cover B, and hinge E, connected thereto and having leaf-extensions  $e$   $e'$   $e^2$ , the latter perforated for the rivets D to  
5 pass through, and the looped wire E', uniting said extensions  $e$  and  $e'$ , all substantially as and for the purposes set forth.

Witness our hands this 7th day of March, 1891.

GEORGE W. NIEDRINGHAUS.  
CHRISTIAN GEISS.

Witnesses:

C. D. MOODY,  
A. BONVILLE.