F. D. OGDEN, DEC'D.

J. E. OGDEN, ADMINISTRATOR.

COUPLING BOLT.

APPLICATION FILED DEC. 4, 1909.

980,119. Patented Dec. 27, 1910.

Fig. 1,

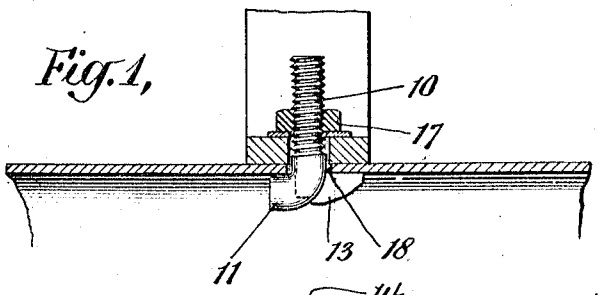


Fig. 2,

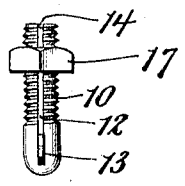


Fig. 3,

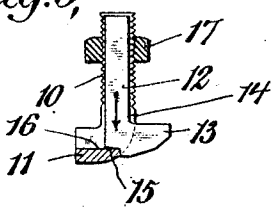


Fig. 4,

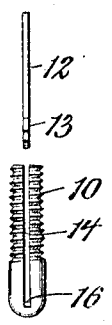


Fig. 5,

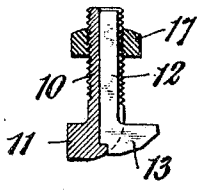


Fig. 6,

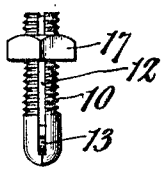
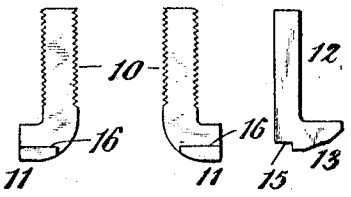


Fig. 7,



WITNESSES:

J. b. Hartmann

J. L. Andrews Jr.

INVENTOR

Fredric O. Ogden

BY

Chapin & Raymond

his ATTORNEYS

UNITED STATES PATENT OFFICE.

FREDRIC D. OGDEN, OF BAYONNE, NEW JERSEY; J. EDWARD OGDEN, ADMINISTRATOR OF SAID FREDRIC D. OGDEN, DECEASED, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PATENT APPLIANCE COMPANY, A CORPORATION OF NEW YORK.

COUPLING-BOLT.

980,119 Specification of Letters Patent. Patented Dec. 27, 1910.

Application filed December 4, 1909. Serial No. 531,384.

To all whom it may concern:

Be it known that I, FREDRIC D. OGDEN, a citizen of the United States of America, and a resident of Bayonne, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Coupling-Bolts, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in coupling bolts, and particularly to a type of coupling bolt having relatively movable parts wherein, when the nut employed therewith is removed, the parts may be moved to a position in which the bolt may be inserted head first through an opening, and after the parts have been returned to their normal position to receive the nut, the head cannot be withdrawn through the opening.

My invention consists in certain novel details of construction and combinations of parts, such as will be specifically pointed out hereinafter, and in order that my invention will be fully understood I will now proceed to describe certain embodiments thereof, having reference to the accompanying drawings illustrating the same, and will then point out the novel features in claims.

In the drawings: Figure 1 is a view in side elevation of a bolt constructed in accordance with my invention, showing the same in use. Fig. 2 is a view in side elevation of the bolt removed from the work, the point of view in Fig. 2 being at right angles to the point of view in Fig. 1. Fig. 3 is a view in central vertical section through the bolt. Fig. 4 is a view, similar to Fig. 2, in side elevation of the bolt, but showing the same, without the nut, and with the tongue moved from its normal position in the bolt stem. Fig. 5 is a view in central section, similar to Fig. 3, of a slightly modified form of the bolt. Fig. 6 is a view in side elevation, similar to Fig. 2, of a further modification. Fig. 7 is a face view of the disassembled bolt portions of the form shown in Fig. 6.

In the construction shown in Figs. 1 to 4 inclusive, the bolt comprises a main body portion consisting of a screw threaded shank 10 and a turned over head portion 11; and a removable tongue consisting of a shank 12 and a head portion 13 projecting at right angles therefrom. The shank 12 of the tongue is fitted into a slot or cut-away portion 14 of the shank 10 of the body portion of the bolt, and the head portion 13 of the tongue projects in a direction opposite to the direction in which the head portion 11 of the bolt projects so that the two portions 11 and 13 together form the bolt head. A shouldered portion 15 at the end of the shank rests against an abutment 16 in the body portion, by which the tongue is prevented from moving longitudinally in the direction of the arrow in Fig. 3. A nut 17 is fitted to the screw threaded portion of the shank 10, and it will be understood that the width of the shank portion 12 of the tongue is such as to permit the nut to be freely moved upon the shank 10; in other words, the width of the tongue is no greater than the inner diameter of the screw threads. When it is desired to apply the bolt, the nut 17 is first unscrewed from the shank 10, and the tongue is then removed from its position in the cut-away portion 13. The head portion 11 is then inserted through the opening (18, Fig. 1) in the work, and thereafter the extremity of the head portion 13 of the tongue is presented to the opening 18 while the rear portion thereof is inserted into the slot or cutaway portion 14 of the shank 10, the tongue being then swung into place so that the shank 12 thereof is received wholly within the slot 14 and the head portion caused to project upon the rear face of the work in the position in which it appears in Fig. 1. The nut is now screwed into place upon the shank of the bolt and is tightened up. The nut prevents lateral displacement of the tongue with respect to the bolt, and longitudinal displacement thereof is prevented by the engagement of the shoulder 15 with the abutment 16; hence when the nut is screwed up tight, relative movement of the parts is impossible, and it will be impossible for the head of the bolt to be withdrawn through the opening in the work.

To remove the bolt, it would only be necessary to remove the nut, when the tongue and body portion can be disassembled, and the parts readily withdrawn.

This form of coupling bolt is very useful for many purposes in the mechanical art, and it is particularly useful in sheet metal

work where it so often happens that ready access can only be had to one side of the work. It is also useful where undercut openings are used to provide for concealed bolt heads.

It will be readily understood that a bolt of this description may be made in various forms, and in Fig. 5, I have shown a form in which the cut-away portion in the shank of the bolt does not extend clear through the bolt, but extends for a portion of the distance only. The tongue is then, of course, made proportionately narrower as is shown in Fig. 5.

In Figs. 6 and 7, I have shown still another construction in which the body portion of the bolt is made in two halves, that is to say,—the body portion of the construction shown in Fig. 2 is divided upon its medial line.

What I claim is:

1. A coupling bolt comprising two independent and separable members arranged laterally movable with respect to each other, but longitudinally coengaged whereby they are held against relative movement in one direction, one only of the said members having a screw threaded portion for receiving a nut, and the other said portion being retained against relative lateral movement by the nut, when the same is upon the said screw threaded portion.

2. A coupling bolt comprising two coengaging members one only of which is provided with a screw threaded portion, the two said members being disposed longitudinally in abutting relation with each other whereby relative longitudinal movement in one direction is prevented, and a nut fitted upon the said screw threaded portion and freely engaging the other said portion to prevent relative lateral displacement thereof.

3. A coupling bolt comprising a body portion having a screw threaded shank and part of a head, the shank having a longitudinal slot therein for receiving a tongue, and a tongue fitted between the walls of the said slot and arranged to slide longitudinally therein in one direction, the said tongue being provided with the other portion of the head of the bolt.

4. In a coupling bolt, the combination with a body portion consisting of a screw threaded shank and a portion projecting therefrom at one end to form part of the head, the said shank having a slotted portion therein terminating in an abutment, of a tongue having a shank fitted to the said slotted portion and provided with a shoulder which engages the abutment and having a portion constituting another part of the said head of the bolt.

5. In a coupling bolt, the combination with a screw threaded body portion having a slot which extends all the way across the same and throughout nearly but not quite all the length thereof, and a tongue whose width is not greater than the smaller diameter of the screw threaded portion, fitted in the said slot, the said body portion and tongue having complementary head portions.

In witness whereof, I have hereunto set my hand this 27 day of November, 1909.

FREDRIC D. OGDEN.

Witnesses:
A. M. Finn,
M. Kempe.