

(No Model.)

H. F. COURTNEY.
EXPANSIBLE BOLT.

No. 352,226.

Patented Nov. 9, 1886.

Fig. 1.

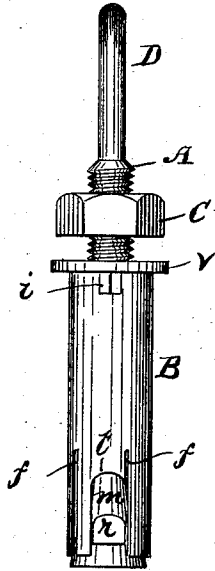


Fig. 2.

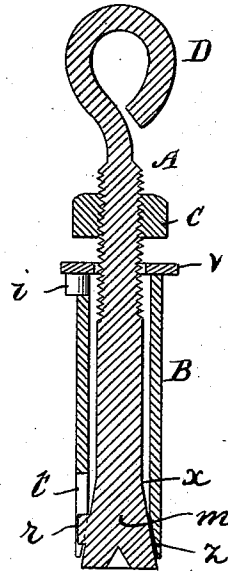


Fig. 3.

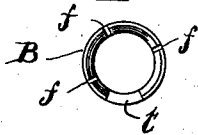


Fig. 5.

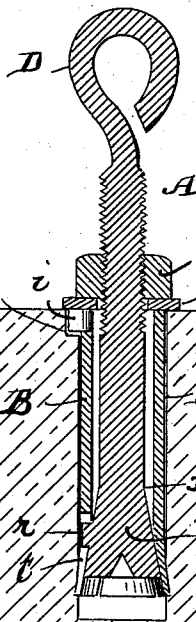
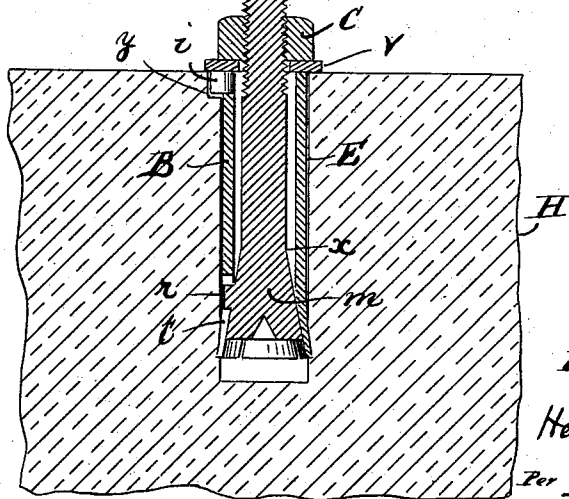
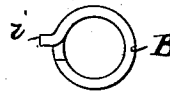


Fig. 4.



Witnesses.

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EXPANSIBLE BOLT.

SPECIFICATION forming part of Letters Patent No. 352,226, dated November 9, 1886.

Application filed April 9, 1886. Serial No. 198,403. (No model.)

To all whom it may concern:

Be it known that I, HERBERT F. COURTNEY, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Expansible Bolts, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved bolt; Fig. 2, a vertical longitudinal section of the same; Fig. 3, a bottom plan view of the sleeve detached; Fig. 4, a top plan view of the same, and Fig. 5 a vertical longitudinal section showing the bolt in use.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My improvement relates to that class of expansible bolts which are employed by stone-masons in lifting blocks of stone, and also in fastening awnings, &c., to the stone-work of buildings; and it consists in the novel construction and combination of parts, as hereinafter more fully set forth and claimed, the object being to produce a more effective and otherwise desirable article of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation, its extreme simplicity rendering an elaborate description unnecessary.

In the drawings, A represents the body of the bolt, or the bolt proper, and B the sleeve. The lower portion, *m*, of the body is conical in form, its diameter being greatest at the extreme lower end, from which it gradually tapers to the point *z*, its upper portion being screw-threaded and provided with a nut, C, washer *v*, and hook D. The hole in the lower end of the sleeve B is counterbored or made flaring, as shown at *z*, to receive the conical portion *m* of the body A, the body of said sleeve at its lower end being provided with a series of narrow slits, *f*, and with a wide opening or slot, *t*, through which a stud, *r*, on the

body A projects. A lip, *i*, projects laterally from the upper portion of the sleeve B, said lip being formed integral therewith, as best seen in Fig. 4, the object of the stud *r* being to prevent the body A from turning or revolving in the sleeve, and the object of the lip *i* to prevent the sleeve from turning in the stone.

In the use of my improvement a hole, E, having first been drilled in the stone H, and a socket or niche, *y*, formed therein to receive the lip *i*, the nut C is turned back and the sleeve B slipped upwardly on the body A, as shown in Figs. 1 and 2. The bolt and sleeve are then inserted in the hole E, the lip *i* resting in the socket *y*, after which the nut C is turned down forcibly onto the washer *v*, thereby drawing up the body A, expanding the lower portion of the sleeve and causing it to engage the stone and firmly lock the bolt in position in a manner which will be readily obvious without a more explicit description.

I do not confine myself to forming the lip *i* integral with the sleeve B or the stud *r* integral with the body A; neither do I confine myself to the use of the washer *v*, as the same may be omitted, if desired, the nut being made of greater diameter than the sleeve B.

Having thus explained my invention, what I claim is—

1. In an expansible bolt of the character described, the combination of a body, a sleeve, and a nut, the lower portion of said body being conical and provided with a laterally-projecting stud and the upper portion screw-threaded to receive the nut, and the lower portion of the sleeve provided with a series of slits to permit it to expand, and with a slot for receiving the stud on the body, and its upper portion provided with a laterally-projecting lip, substantially as described.

2. The bolt A, having the conical portion *m*, and provided with the stud *r* and nut C, and the sleeve B, provided with the slits *f*, slot *t*, and lip *i*, constructed, combined, and arranged to operate substantially as set forth.

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Witnesses:

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