D. S. McNEILL.

DOOK, HOLDFAST, AND FOUNDATION PIN.

APPLICATION FILED OCT. 15, 1917.

1,318,680. Patented Oct. 14, 1919.

Fig. 2.



Fig. 3.

Fig. 1.

Fig. 4.

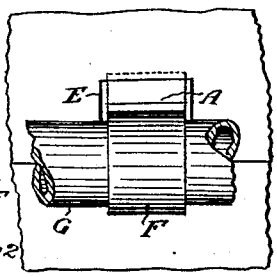


Fig. 5.

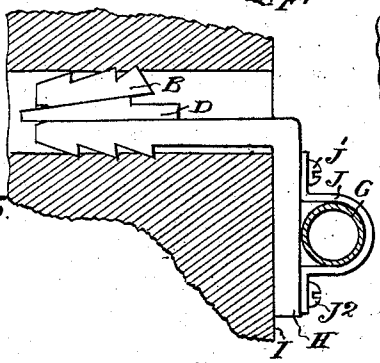


Fig. 6.

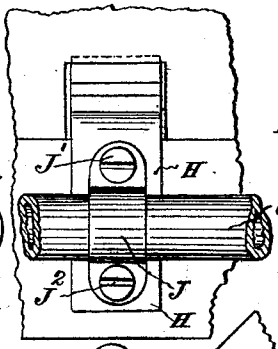


Fig. 8.

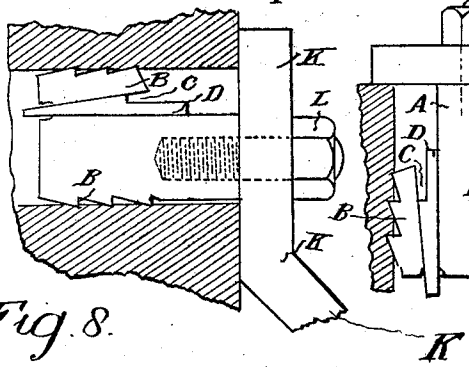
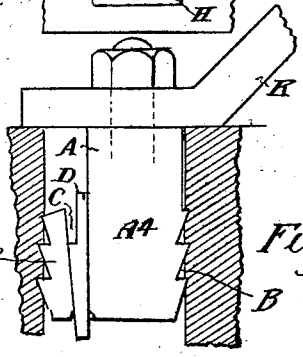


Fig. 7.



Inventor:-

Donald Stuart McNeill.

By:- B. Smigu.

Atty.

UNITED STATES PATENT OFFICE.

DONALD STUART McNEILL, OF GLASGOW, SCOTLAND.

DOOK, HOLDFAST, AND FOUNDATION-PIN.

1,318,680. Specification of Letters Patent. Patented Oct. 14, 1919.

Application filed October 15, 1917. Serial No. 196,714.

To all whom it may concern:

Be it known that I, DONALD STUART McNEILL, of 7 Ruskin Terrace, Rutherglen, Glasgow, Scotland, electrical engineer, have invented certain new and useful Improvements in Dooks, Holdfasts, and Foundation-Pins, of which the following is a specification.

My invention, which relates to improvements in dooks, holdfasts and foundation pins, has for its object to especially expedite the fixing operation, increase the efficiency, prolong the life and insure greater stability of the device, and its employment has special reference to electrical installation, more especially in coal and other mines and like places, where the atmospheric conditions make wood plugs useless, and cast iron or other plugs used with cement a costly operation due to the time which has to elapse before the cement or fixing medium can set. Clips are used with dooks for carrying the cables, tubes or pipes, as will be hereafter referred to.

The dook comprises a cast iron casting made in one piece. The inserting end is formed with jaws ragged or serrated on the outside and a tapered mouth or wedge-shaped hollow inside. The taper end is so designed and treated during casting as to be fractured when force is applied within the hollow. A hole of just sufficient size is knocked in wall, floor or other masonry, and the jaw end of the dook simply inserted, thereby doing away with the operation of setting and packing same in the hole provided for it, as it is a matter of simply inserting the dook. The small wedge is then put into the mouth and hammered home, the jaws breaking apart at the inserted end, as already referred to, so that the farther the wedge is driven home, the wider the fractured jaws are forced apart, and consequently the firmer the grip becomes, the wedge remaining permanently in the driven position. Thus the fixing of the dook without the aid of any medium such as cement and the like enables the operation of hanging the cables, pipes or tubes hereafter referred to, to be carried out immediately without any loss of time or the time wasted waiting for cement to dry and set, as is the case with ordinary wood plugs or ragged or barbed bolts. The exposed portion of the dook is formed with lugs or lateral projections. The clip used with the dook is comprised of steel and bent to size of tube or cable which it is designed to carry. To fix the tube, pipe or cable, it is laid up against the face of dook and the clip sprung over the small face lugs or projections, thus fixing the tube firmly without any screws or other fixing.

In another form, the exterior of the dook or holdfast is formed of angular or L-formation. This type is designed to be used with the existing ordinary saddles, these saddles being fixed by means of screws tapped into the face of the angular or L-shape casting.

The foundation or holding down pin or dook is for fixing brackets, or castings to the wall, roof or floor. In this form, the dook is fixed in the same way by driving home the small wedge, but the body of the dook is made square and solid. The necessary size of hole being drilled and tapped therein and either by means of studs or set pins, the article required to be fixed is secured.

In order that my invention may be properly understood and readily carried into effect, I have hereunto appended one sheet of drawings, of which—

Figure 1 illustrates in side elevation the dook or holdfast in one of its simplest forms inserted in position within the hole it is designed to occupy, carrying an exterior clip.

Fig. 2 is a perspective view of the wedge adapted to be used with the dook or holdfast.

Fig. 3 is a view corresponding to Fig. 1 of the dook or holdfast in position, the wedge having been driven home and the inserted end of the jaws of the dook or holdfast fractured.

Fig. 4 is a front elevation of Fig. 3.

Fig. 5 is a similar view to Fig. 3 of an alternative form of the dook or holdfast (carrying an ordinary saddle) with regard to its exterior form or surface.

Fig. 6 is a front elevation of the same.

Fig. 7 is an elevation of the dook or holdfast applied to a floor and used as a foundation pin or analogous device.

Fig. 8 is a similar view of the dook or holdfast applied to a vertical wall in the employment of a foundation pin, all hereafter more fully referred to and described.

Referring to Figs. 1 to 4 inclusive, A is the dook or holdfast, the inserting end thereof being formed with ragged or serrated surfaces B. C is the tapered mouth or

wedge shape hollow designed to receive the wedge D which is shown in Fig. 3 inserted therein and driven home, the jaws broken apart and the serrated surfaces B biting into the interior of the upper and lower surfaces of the wall of the hole E to such a depth, as seen in figure referred to, as to render displacement impossible. The exterior or exposed portion A^1 is formed with lugs or projections A^2, A^3, to receive the clip F whose bent end F^1 engage or coact with the projections A^2, A^3, aforesaid when sprung in position, with the tube or cable G interposed and carried therebetween.

Referring to Figs. 5 and 6, the dook or holdfast A there shown differs in no respect interiorly from that already described. The exterior, however, is provided with a leg or arm H which is bent to lie snugly against the surface of the wall I, the existing saddle fitting J being attached thereto by screws J^1, J^2, as shown with the tube or conductor carried therein.

Referring to Figs. 7 and 8, the body of the dook or holdfast A^4 is of square formation and is employed as a holding down pin for fixing the bracket K, which is fixed to it by the medium of a screw bolt or stud L, the exposed or exterior portion of the dook or holdfast A^1 being tapped and threaded to receive it. The expanding of the gripping surfaces is obtained by the serrated members B being fractured or severed by the force of the driven wedge C, as is the case in connection with the dook or holdfast, illustrated in Figs. 1 to 6 inclusive.

Claims.

1. A dook or holdfast comprising a body having a pair of jaws connected together at one end and spaced apart from said connected portion to the other end, said jaws having external serrated surfaces and having opposing inwardly converging inner surfaces, and said connecting portion of said body being frangible, and a wedge for insertion between said jaws and to fracture said connecting portion and expand the jaws when said wedge is driven in place.

2. A dook or holdfast comprising a body having a pair of jaws connected together at one end and spaced apart from said connected portion to the other end, said jaws having external serrated surfaces and having opposing inwardly converging inner surfaces, and said connecting portion of said body being frangible, a wedge for insertion between said jaws and to fracture said connecting portion and expand the jaws when said wedge is driven in place, and a clip having bent surfaces arranged to engage the exterior or exposed portion of said dook or holdfast.

In testimony whereof I affix my signature in presence of two witnesses.

DONALD STUART McNEILL.

Witnesses:

JOHN LIDDLE,

JOHN TRAIN LIDDLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."