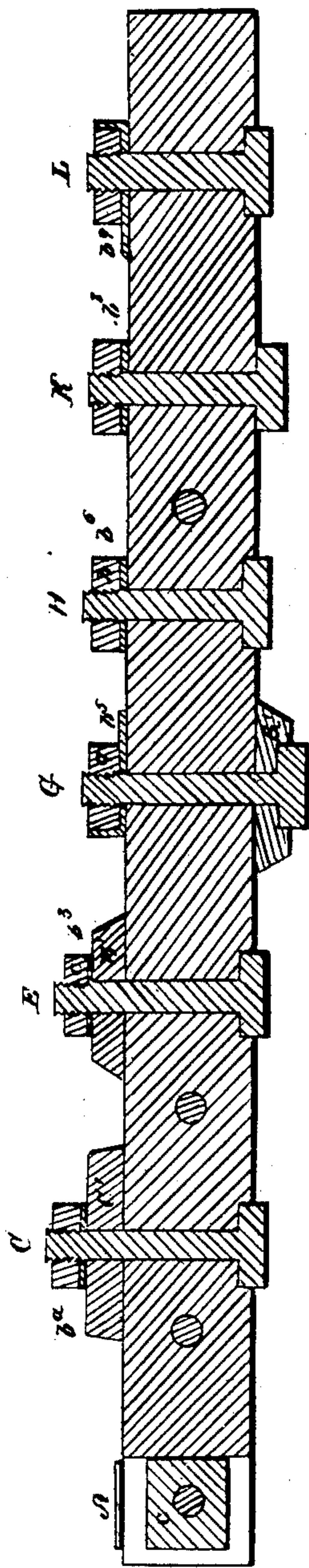
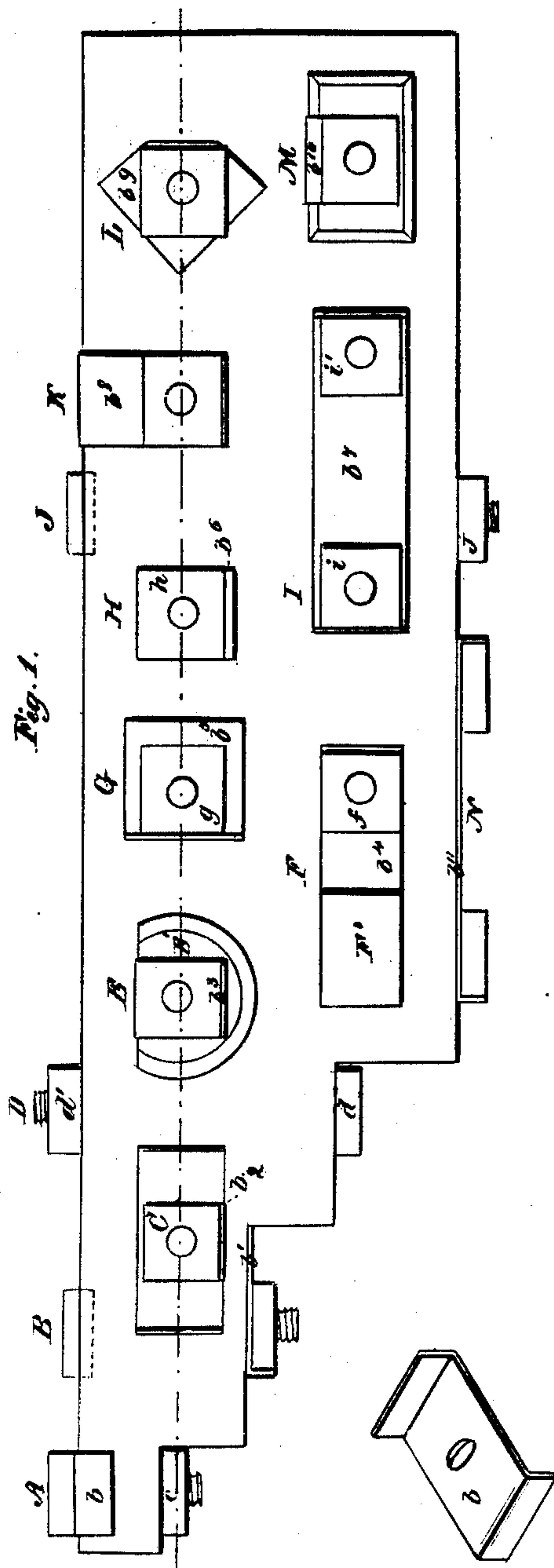


S. Noblet,
Nut Lock,
No 21,574, *Patented Sept. 21, 1858.*



UNITED STATES PATENT OFFICE.

SAMUEL NOBLET, OF HALIFAX, PENNSYLVANIA.

IMPROVED MODE OF PREVENTING NUTS FROM UNSCREWING.

Specification forming part of Letters Patent No. 21,574, dated September 21, 1858.

To all whom it may concern:

Be it known that I, SAMUEL NOBLET, of Halifax, in the county of Dauphin and State of Pennsylvania, have invented a new and Improved Mode of Preventing Nuts from Unscrewing from Bolts; and I do hereby declare the following to be a correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of a piece of timber having various modifications of my invention applied to bolt heads and nuts. Fig. 2 represents a longitudinal section of the same through the line *xx* of Fig. 1.

The same letter marks the same part in both figures.

The nature of my invention consists in preventing nuts or bolts-heads from turning by inserting below them a flexible metallic washer, one end of which is turned up against the head or nut and the other held immovably in place either by being sunk into the body of the timber through which the bolt passes or by being turned down over some rigid portion of the same, or by being held by another bolt, all as hereinafter described and shown.

In the drawings I have shown various modes of applying my invention, according to the character of the position where the bolt is to be used or the purpose it has to serve.

A shows the invention applied in a situation where the nut *a*, coming up against a square shoulder, cannot be turned. In this case the washer *b* is placed under the head of the bolt, and when this is screwed down tight one end of the washer is turned up against the head of the bolt and the other end is turned down over the edge of the timber, as shown.

B shows a bolt having a square head let into the wood. The washer *b'* is placed under the nut and one end turned up against the side. The other end is square up against the shoulder of the timber, as shown.

C shows a position where a piece of iron is attached to a piece of timber. In this case the head of the bolt is let into the timber and one end of the washer *b*², which is inserted between the iron and the nut, is turned up against the nut and the other end turned over the edge of the iron.

D shows a bolt, the head of which is against the shoulder of the timber and the nut *d'* con-

fined by a washer turned up against its side, the other end of said washer being turned down over the edge of the timber.

E represents an arrangement of bolt commonly used upon bridges. The head of this bolt is let into the timber, and a large iron washer *E'* of the form represented is placed below the nut *e*. Between this washer and the nut is placed my thin metallic washer, one end of which is bent up against the nut and the other end turned down over the straight-edge of washer *E'*.

F represents a case where a cast-iron stop or shoulder *F'* is attached to the wood for the purpose of giving a bearing to the end of the washer *b'*, one end of which is turned up against the side of nut *f* and the other abuts against the cast-iron stop *F'*.

G shows a case where a large cast-iron washer *G'* is inserted under the head of the bolt, the head being let into the washer, as shown. Under the nut *g'* is the thin washer *b*⁵, two corners of which are driven into the timber and one end turned up against the nut *g*.

H is the case of a square bolt having a round head. This bolt fits into a square hole in the timber and the washer *b*⁶ has a square hole in it fitting the square part of the bolt. This prevents the washer from turning, and one end of the washer being turned up against the nut *h* holds it securely in place.

I represents the case in which one washer *b'* is common to two nuts *i* and *i'*. A similar washer may be placed under the two heads of the bolts.

J is a round bolt with the head let into the timber. The washer, which is not shown, is turned up against the nut and down over the edge of the timber, as before.

K is a square bolt, the head of which is not let into the timber, and the washer applied as in the case J.

L is the case of a round bolt, the head of which is let in, and the washer secured by driving three of corners into the timber, the fourth corner being turned up to hold the nut, as shown.

M shows a case where the washer *b*¹⁰ is turned over a beveled edge.

N is the case where two bolt-heads are held by a common washer *b*¹¹.

The washers may be made of any flexible

metal and of the thickness required by the degree of strain to which they are likely to be exposed.

Having thus fully described my invention and shown a variety of cases in which it may be applied, what I claim, and desire to secure by Letters Patent, is—

Preventing bolt-heads or nuts from turning by inserting below them a flexible metallic washer, one end of which is turned up against

the head or nut and the other held immovably in place, substantially as hereinbefore described and represented.

In witness whereof I have hereunto set my hand this 31st day of August, 1858.

SAMUEL NOBLET

Witnesses:

JNO. G. THOMPSON,
CHAS. F. STANSBURY.