M. THEIMER.

TOGGLE.

APPLICATION FILED JULY 22, 1909.

998,431. Patented July 18, 1911.

Fig: 1

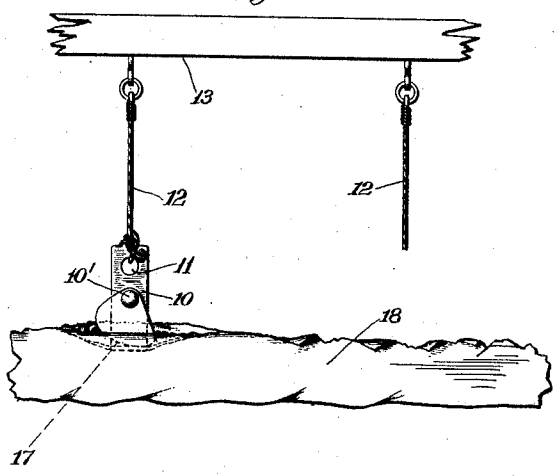


Fig: 2

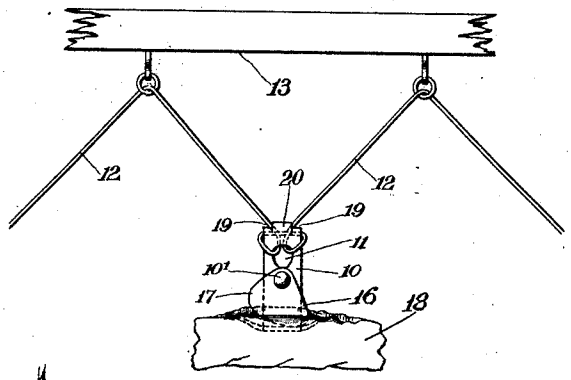


Fig: 4

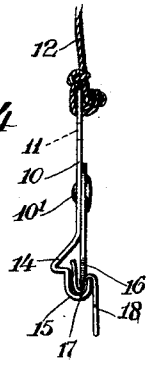


Fig: 3

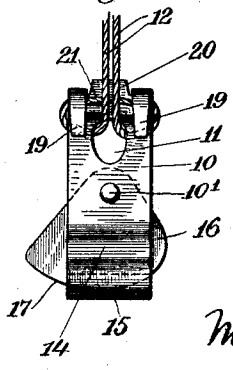
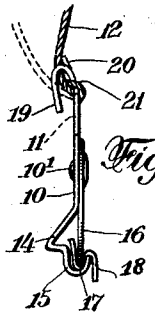


Fig: 5



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UNITED STATES PATENT OFFICE.

MAX THEIMER, OF ELIZABETH, NEW JERSEY.

TOGGLE.

998,431. Specification of Letters Patent. Patented July 18, 1911.

Application filed July 22, 1909. Serial No. 509,069.

To all whom it may concern:

Be it known that I, MAX THEIMER, a naturalized citizen of the United States, and a resident of Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Toggles, of which the following is a specification.

My invention relates to devices commonly known as "toggles," and designed to be fastened to sheets of a flexible nature such as leather, hides, and cloths, and particularly for the purpose of stretching the same.

It has for its object a device which will insure a firm hold upon the material with a minimum and fixed waste of same, and in which the holding mechanism shall be independent of the holding cord.

It has for its further object a substantially flat toggle over which the varnish or enamel readily flows, the protruding parts being either on a level or beneath the surface of the skin or other materials, and the arrangements such that the varnish or enamel is not likely to clog the various parts of the device.

The nature of my invention will be best understood in connection with the accompanying drawings, in which—

Figure 1 is a plan view of one form of the toggle. Fig. 2 is a plan view of the toggle, somewhat modified to allow for lacing of the holding cord. Fig. 3 is an enlarged detail view of the underside of the toggle shown in Fig. 2. Figs. 4 and 5 are end views on an enlarged scale of the toggle shown in Figs. 1 and 2 respectively.

Similar characters of reference designate corresponding parts throughout the several views.

Referring now to the drawings, 10 designates a plate provided at one end with a hole 11 to receive a cord 12 by means of which the toggle is to be secured to a frame 13. At its other end, the plate is bent as shown, providing a vertical gage groove 14 and a horizontal locking groove 15. To the upper surface of this plate 10 is pivotally attached a cam plate 16, whose edge 17 may be roughened if desired, coöperating with the groove 15 to hold the material 18. In the form of toggle illustrated in Figs. 2, 3 and 5 the hole 11 is flattened at the outer end to accommodate the two branches of the cord 12 which in this form is adapted for lacing. To prevent the cord 12 from slipping, the cord end of said plate 10 is provided at each side with an extension 19 turned back upon itself below the said plate and with a projecting finger 20 bent slightly downwardly. The end of the said plate is preferably also given a slight downward bend.

In inserting the material to be held, the same is placed at the bottom of the gage groove 14 and the cam plate 16 pressed inwardly in any suitable manner against the said material forcing the same into the holding groove 15. The material is then brought over the upper wall of the groove 15 whereby a double bend is made in same providing a secure hold; and, as the amount of the portion held is fixed by the depth of the gage 14, the degree of waste is positively determined. To unfasten the toggle from the material it is necessary only to grasp same and to draw it in the direction to oppose the locking action of the cam.

Varnish or enamel can be readily applied to the leather almost up to its fastened edge as there are no protruding parts above the level of same. The toggle itself is protected against clogging by the varnish or enamel due to the cam plate 16. The entire stress of holding, also, is horizontal and is directed against a rivet 10′ or other suitable means for pivotally securing the said cam plate 16 to the plate 10. The holding action is thus entirely independent of the cord 12 by means of which the toggle is secured to the frame 13.

Where it is not desired to lace the cord 12 the same is simply knotted to the toggle, passing through the hole 11 of the plate 10. If it be desired to lace the cord 12, however, a looped portion of the same is brought through the hole 11 from the underside of plate 10, passed over the end of same and over the two extensions 19. The two outgoing portions of the cord 12 then bear against the finger 20 and press upon a portion 21 of the cord held between them and the said finger. The cord 12 is by this means securely held and the breakage of one of the branches even close to the toggle itself will not cause the other to loosen, whereby the material does not drop as is often the case with lacing when one portion of the string fails. The pull on the string in the arrangement just described may be diverted in any convenient direction to obtain the desired stress on the material. To take up the

cord or to draw it through the hole 11 it is necessary only to slightly raise the cord end of the toggle, when the two outgoing parts no longer bear against the portion 21 (as shown in dotted lines, Fig. 5) and the cord may be freely drawn through.

I claim:—

1. In a toggle for material of a flexible nature: a plate; cord securing means at one end of said plate, the other end of said plate being bent to form a gage groove and a holding groove; and means pivotally secured to said plate, having an edge eccentric with respect to the pivot of said means to engage said holding groove to hold the said material.

2. In a toggle for material of a flexible nature: a plate; cord securing means at one end of said plate, the other end of said plate being bent to form a vertical gage groove and a horizontal locking groove; and a cam plate pivotally secured to said plate to engage the said horizontal locking groove and to hold the said material.

Signed at Newark, in the county of Essex and State of New Jersey this 20th day of July A. D. 1909.

MAX THEIMER.

Witnesses:
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