May 8, 1923.

D. L. BISSET

1,454,148

CHUCK JAW

Filed Nov. 22, 1920

2 Sheets-Sheet 1

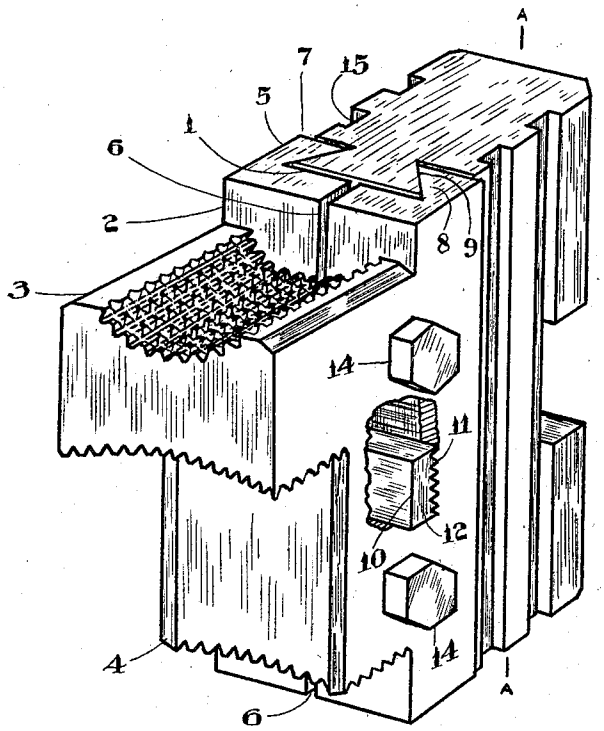


FIG. 1

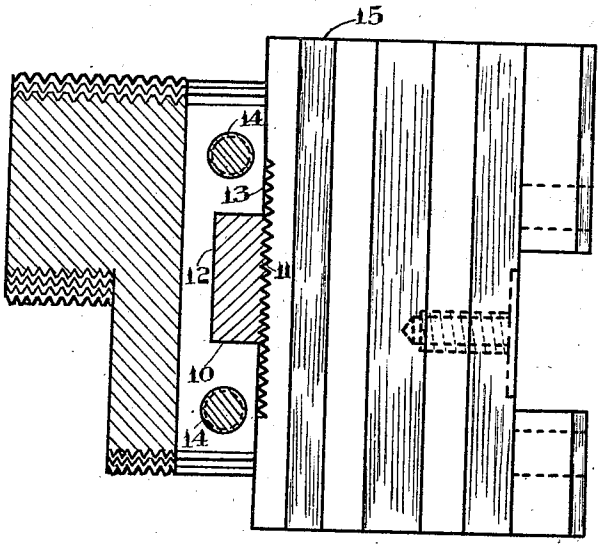


FIG. 2

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May 8, 1923.

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D. L. BISSET

CHUCK JAW

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2 Sheets-Sheet 2

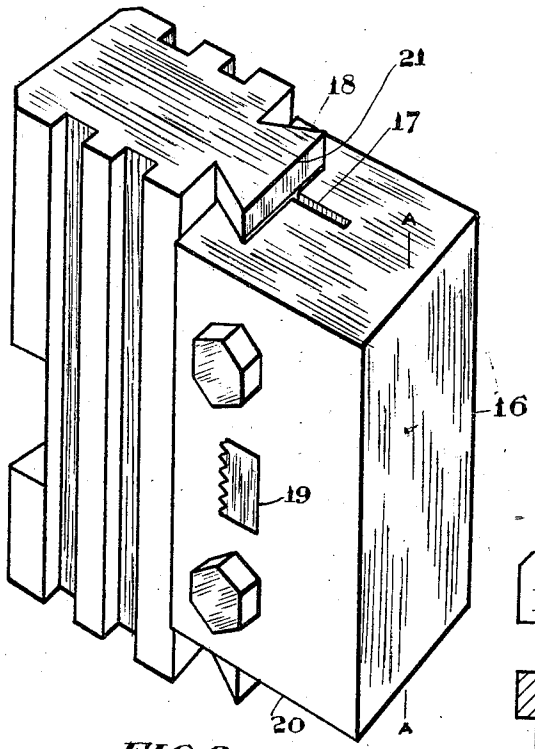


FIG. 3

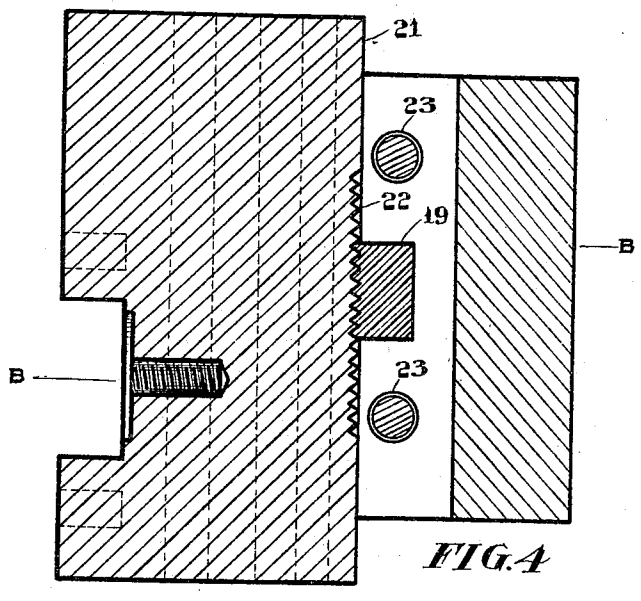


FIG. 4

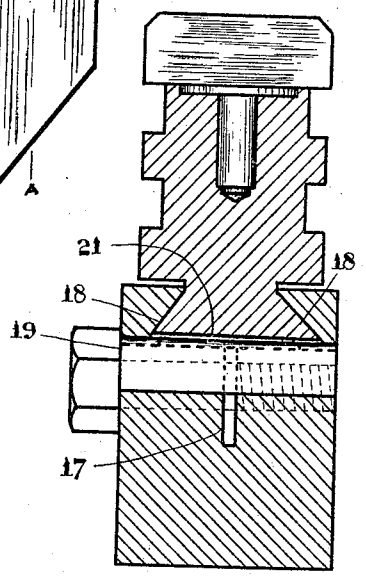


FIG. 5

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Patented May 8, 1923. 1,454,148

UNITED STATES PATENT OFFICE.

DAVID LOGAN BISSET, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR TO P. LYALL & SONS CONSTRUCTION COMPANY, LIMITED, OF MONTREAL, QUEBEC, CANADA.

CHUCK JAW.

Application filed November 22, 1920. Serial No. 425,889.

To all whom it may concern:

Be it known that I, DAVID LOGAN BISSET, subject of the King of Great Britain and residing at 75 Columbia Avenue, in the city and district of Montreal, in the Province of Quebec, in the Dominion of Canada, have invented a new and useful Chuck Jaw, of which the following is the specification.

The invention relates to chuck jaw as described in the present specification and illustrated in the accompanying illustrations that form part of the same.

The invention consists essentially of the novel construction and arrangement of parts, whereby the jaw proper is adjustably and at the same time rigidly held to its base portion.

The objects of the invention are to facilitate the adaptability of a chuck for various kinds and sizes of work; to simplify the assemblage of the parts and eliminate complications in the construction; and generally provide a jaw, which will accurately and firmly grip the work, and yet be cheap to produce and to maintain.

In the drawings, Figure 1 is a perspective view of the jaw broken away to disclose its adjustable connection with its base portion.

Figure 2 is a vertical sectional view of the jaw proper and a side elevation of the base portion.

Figure 3 is a perspective view showing the application of this invention to another form of jaw.

Figure 4 is a vertical sectional view of the complete jaw illustrated in Figure 3 on the line A—A.

Figure 5 is a horizontal section of the complete jaw on the line B—B in Figure 4.

Like numerals of reference indicate corresponding parts where the figures refer to the same forms.

Referring to the drawings, the jaw base 1 is the portion of the complete jaw and slidably supports the jaw proper 2 in gripping position.

These jaws are intended for pneumatically operated chucks though with changes they may be used more generally.

Where the slidable bases are pneumatically operated, it is desirable to bring the gripping faces of the jaws into proximity with the work, so that in the power operation there is very little movement, besides it is sometimes necessary to grip the work according to its shape, therefore the jaw proper 2 is made reversible and slidable in relation to the base portion 1 and in doing so the toothed gripping faces are on both sides of the step 3, while the step 4 is toothed on one side. Both steps project from the clamping inner end 5, which is centrally split at 6 and formed with the flanges 7, each having the inturned bevelled tongue 8 engaging the wall of the groove 9 in the base portion 1. The toothed key 10 having a plurality of tapered saw teeth 11 longitudinally cut therein, is inserted in the key slot 12 at the back of the jaw proper 2 and this key 10 engages corresponding teeth of the transverse rows of teeth 13 at the front edge wall of the jaw base 1. The bolts 14 draw the tongue 8 tightly to the groove walls 9 by reason of the split 6, which coincidently tightens the key 10 to its engagement with the base 1.

The other grooves, 15 in the base 1 are for holding it in a chuck body and are not concerned in this invention as the jaw base may be held in any suitable manner.

In Figures 3, 4, and 5 a slight variation is shown in the jaw 16, which is not stepped but reversible just the same.

The split 17 and tongues 18 answer the same purpose as in the invention illustrated in Figures 1 and 2, and the operation is the same as the key 19 is pulled out and the jaw proper 20 adjusted to the work in hand in relation to the base 21, which has a much deeper row of teeth 22 than the depth of the key 19.

The bolts 23 clamp the jaw proper 20 to the base 21 by partially closing the split 17 and this effectually tightens the key 19.

It may be that some changes will occur that will not be a departure from the spirit of the invention, and by the following claim the scope of the invention will be readily seen.

What I claim is:

A chuck jaw comprising a gripping member having a longitudinally split back and a

said back and stepped grips projecting outwardly from said back, the outer one of said grips having recessed roughened surfaces and forming a reversible gripping member, a base having a tongue with transverse teeth across the outer face, a key in said back slot dovetail groove and a transverse key slot in having longitudinal teeth engaging the said transverse teeth and bolts through said back adapted to clamp the gripping member to said base.

Signed at Montreal, Quebec, Canada, this second day of November, 1920.

DAVID LOGAN BISSET.