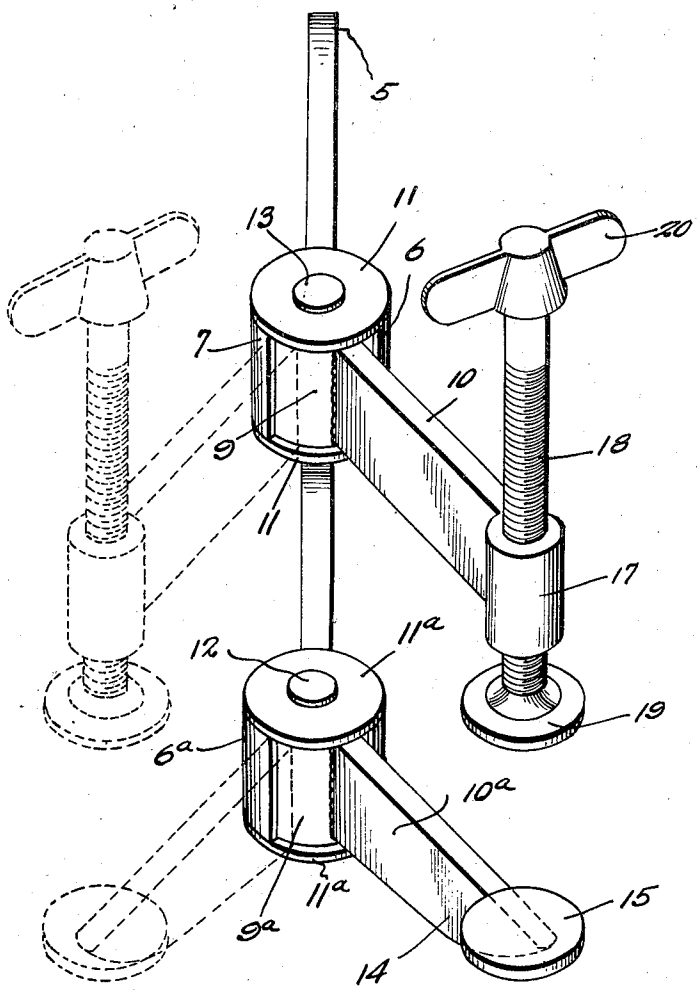
Oct. 12, 1948. N. G. SCHAEFER 2,450,994

C-CLAMP WITH LATERALLY ADJUSTABLE ARM EXTENSIONS

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Fig. 1



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Fig. 2.

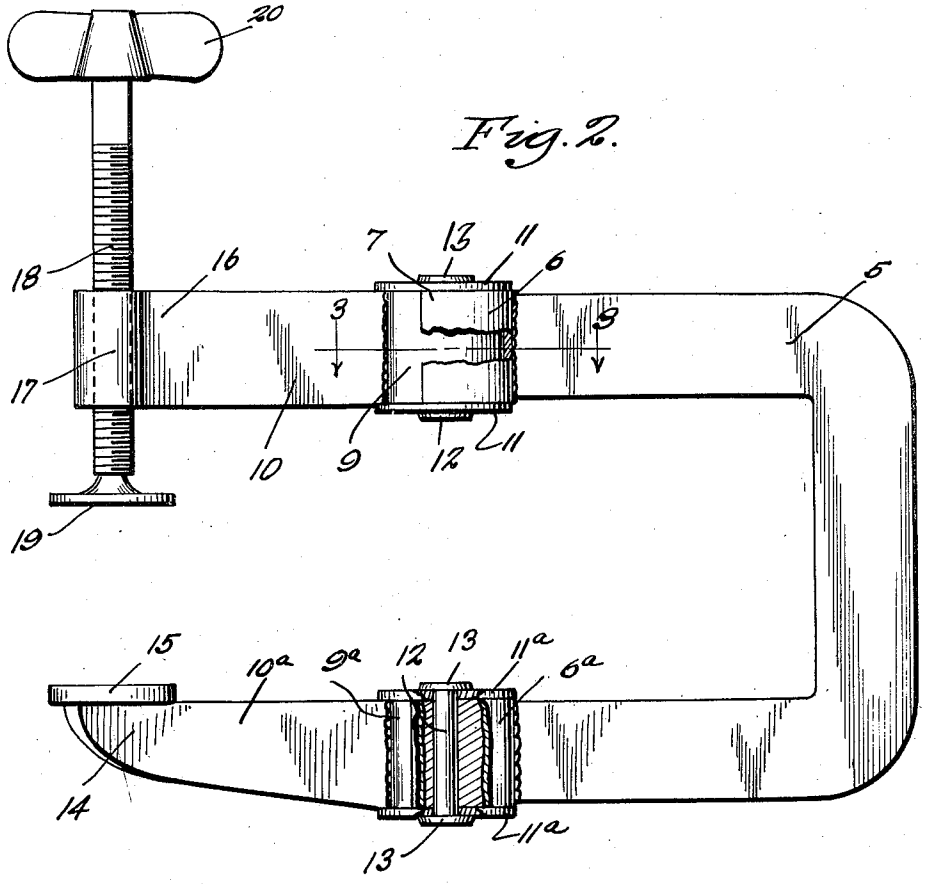
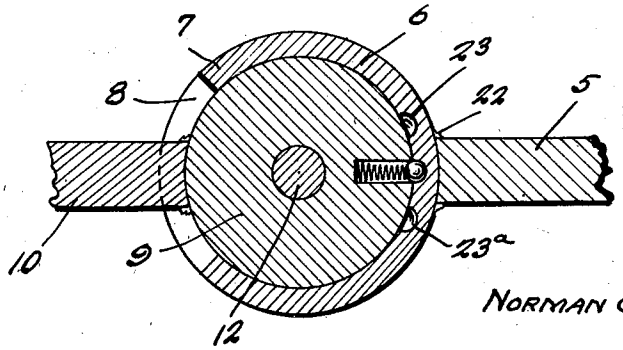


Fig. 3.



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C-CLAMP WITH LATERALLY ADJUSTABLE ARM EXTENSIONS

Norman G. Schaefer, Jersey City, N. J.

Application September 25, 1946, Serial No. 699,307

3 Claims. (Cl. 144—304)

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This invention relates to new and useful improvements in work holding clamps and more particularly to a clamp for holding work in tight or awkward corners.

The primary feature of this invention is to provide a clamp having horizontally swingable arms that allow said clamp to hold work in corners otherwise difficult to reach.

Another important feature of this invention is to provide a clamp of the class described that is efficient and reliable in operation, relatively inexpensive to manufacture, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the invention.

Figure 2 is an enlarged side elevational view with parts shown in section, and

Figure 3 is an enlarged sectional view taken on line 3—3 of Figure 2.

Referring now to the drawings in detail, wherein for the purposes of illustration, I have disclosed a preferred embodiment of the invention, the numeral 5 represents a substantially U-shaped frame having a pair of longitudinally aligned sleeves 6 and 6a secured to the ends of said frame, the forward walls 7 of said sleeves having an opening 8.

Placed in sleeves 6 and 6a and workable respectively therein are the cylindrical rounded ends 9 and 9a of an upper arm 10 and lower arm 10a.

A pair of circular plates or washers 11 and 11a are placed on the ends of sleeves 6 and 6a. Rivets 12 having heads at one end are extended through the plates 11 and 11a and through the rounded ends 9 and 9a of the upper and lower arms, and the outer ends 13 of said rivets are flattened or upset to secure the heads in assembled position.

The outer end 14 of the lower arm 10a is formed on its inner surface with a fixed clamping plate 15.

The outer end 16 of the upper arm 10 is formed into an internally threaded sleeve 17 which registers opposite clamping plate 15. A screw 18 having a clamping plate 19 is carried in the sleeve 17, said screw is also provided with a wing head 20.

The device thus being assembled arms 10 and 10a are swingable horizontally in openings 8 in

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the sleeves, and the inner ends of the rounded ends 9 and 9a are provided with spring projected locking balls 22 adapted to rest in depressions 23 in the sleeves 6 and 6a, said balls when engaged in said recesses hold arms 10 and 10a at a uniform angle with the axis of the frame 5.

Work is clamped between the plates 15 and 19.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the construction, operation and advantages of the device wil be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

What I claim:

1. A clamp of the character described comprising, a U-shaped frame, a pair of axially aligned sleeves carried by the ends of said frame, upper and lower arms having cylindrical ends swingably mounted on said sleeves, said sleeves having an opening in their forward walls to provide for the working of the arms in the sleeves, a pair of plates carried by the ends of the sleeves to secure the cylindrical ends therein, said plates holding the cylindrical ends of the upper and lower arms in their respective sleeves, a fixed clamping plate carried by the lower arm, an adjustable screw carried by the upper arm, and a clamping plate carried by the inner end of the screw cooperating with the fixed clamping plate.

2. A clamp of the character described comprising, a U-shaped frame, a pair of axially aligned sleeves carried by the ends of said frame, upper and lower arms having cylindrical ends swingably mounted in said sleeves, said sleeves having an opening in their forward walls to provide for the working of the arms in the sleeves, a pair of plates carried by the ends of the sleeves to secure the cylindrical ends therein, said plates holding the cylindrical ends of the upper and lower arms in their respective sleeves, a fixed clamping plate carried by the lower arm, an adjustable screw carried by the upper arm, and a clamping plate carried by the inner end of the screw cooperating with the fixed clamping plate and locking means between the sleeves and their associated cylindrical ends for securing the arms in swingably adjusted position.

3. A clamp of the character described comprising a U-shaped frame, axially aligned sleeves carried by the ends of said frame, clamping arms having cylindrical ends swingably mounted in said sleeves, openings in the forward walls of said sleeves for the working of the arms in the sleeves, clamping plates carried by said arms, one of said clamping plates being adjustable relative to the other plate, and automatic locking means between the sleeves and their associated cylindrical ends for securing the arms in swingably adjusted position.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,057,255	McCann	Mar. 25, 1913
1,084,130	Cargin	Jan. 12, 1914
2,114,227	Kriss	Apr. 12, 1938

FOREIGN PATENTS

Number	Country	Date
585,356	France	Feb. 26, 1925