

B. A. PETERSON.
CLAMP.

APPLICATION FILED DEC. 16, 1907

991,640.

Patented May 9, 1911.

Fig. 3.

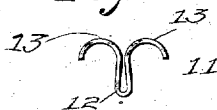


Fig. 4.

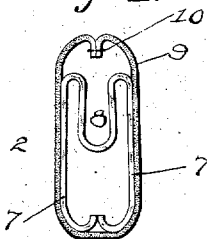


Fig. 5.

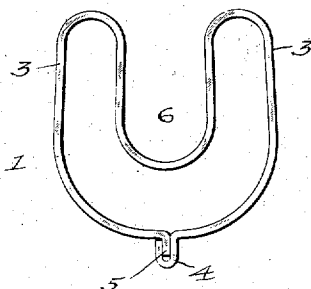


Fig. 2.

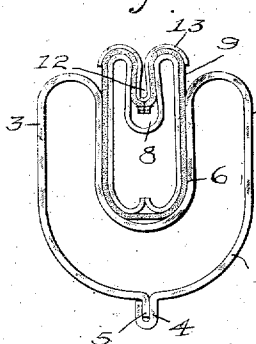
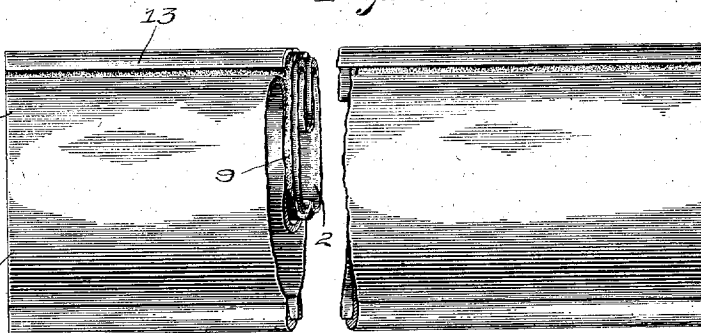


Fig. 1.



Witnesses

C. Paul Parker

George L. Chindahl

Inventor

Burt A. Peterson
by Luther L. Miller
Attorney

UNITED STATES PATENT OFFICE.

BURT A. PETERSON, OF ROCKFORD, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HOWARD D. COLMAN, LUTHER L. MILLER, AND HARRY A. SEVERSON, COPARTNERS TRADING AS BARBER-COLMAN COMPANY, OF ROCKFORD, ILLINOIS.

CLAMP.

991,640.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed December 16, 1907. Serial No. 406,661.

To all whom it may concern:

Be it known that I, BURT A. PETERSON, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Clamps, of which the following is a specification.

One of the objects of this invention is to provide a clamp which shall be stronger, less liable to injury from rough handling, and therefore more durable than clamps heretofore in use.

Another object of the invention is the provision, in a clamp having a member provided with a friction surface, of means for removably securing the friction surface to said member.

A further object is to obtain a spring clamping action in a clamp of the tongue and groove type.

The invention also relates to the other improvements in clamps hereinafter set forth.

In the accompanying drawings, Figure 1 is a fragmental side elevation of a clamp embodying the features of my invention. Fig. 2 is an end elevation of said clamp. Figs. 3, 4 and 5 are detail views of the various parts of the clamps, indicating their connection with one another.

The embodiment selected for illustration comprises a grooved section 1 and a tongue section 2. In order to make the clamp strong and durable the sections 1 and 2 are preferably formed of metal. The section 1 is made from an integral strip of sheet metal bent to provide two arms 3, the edges of said strip being brought together at what may be termed the under side of the clamp, and there connected together in any suitable way, as, for example, by bending one edge portion to form a groove 4 in which the other edge 5 of said strip is adapted to lie. The arms 3 form between them a groove 6 extending throughout the length of the clamp section 1. In order to obtain a spring clamping action when the tongue section 2 is pressed into the groove 6, said groove is preferably made somewhat narrower at its upper open end than in its lower portion.

The tongue section 2 may be made of an integral strip of sheet metal folded to form two sides 7 and a groove 8 in the upper portion of the tongue section. The upper end

of the groove 8 is preferably somewhat narrower than the lower portion thereof. The edges of the strip from which the tongue section 2 is formed meet at the lower edge of the section, and may or may not be rigidly connected together. Said edges are herein shown as merely bent inward and held in contact with each other by the resiliency of the material of which the section is formed.

When the clamp is to be used for holding such articles as warp threads, for example, it is desirable to provide a friction surface upon one of the two sections of the clamp. I have herein represented such a surface as applied to the tongue section. With a view to convenience in applying and removing said friction surface, I may give the material which affords said surface the form of a tube 9, said tube being adapted to receive within it the tongue section 2. The tube 9 may be formed of a strip of felt or other suitable material, the longitudinal edges of which are united by stitches 10 or in any other desired way. Preferably the tongue section 2 is inserted into the tube 9 so that the seam in the tube lies above the groove 8 in said tongue.

The friction material is removably secured to the tongue section 2, in this instance, by means of a member 11 which may be of the same length as the tube 9 and the tongue section 2, said member being formed from sheet metal and comprising a tongue 12 adapted to be forced into the groove 8 of the tongue section 2 and thus secure the friction material to the tongue section and stretch said material over the outer sides of said section. The member 11 preferably comprises two curved portions 13 adapted to fit over the upper part of the tongue section 2.

In use, the article to be secured in the clamps, as, for example, a sheet of warp threads, is laid across the groove 6 in the section 1 of the clamp. The tongue-section 2 is then placed over the article and pressed into the groove 6, carrying before it into said groove a portion of the article to be clamped. The arms 3 of the clamp-section 1 yield outward slightly when the tongue-section 2 and the article being clamped are placed in the groove 6, the resiliency of said arms causing the article to be held securely

in the clamp. When the article is to be released from the clamp, the tongue section 2 is withdrawn from the groove 6. When the friction material covering the tongue section 2 becomes worn it may be removed by withdrawing the member 11 from engagement with the tongue section 2. Said tongue section may then be drawn out of the tube 9, inserted into a new tube, and said new tube secured to the tongue section by means of the member 11.

It is obvious that many changes may be made in the embodiment herein illustrated of my invention. I, therefore, do not limit myself to the precise details above set forth.

I claim as my invention:

1. A clamp comprising a grooved member formed from a strip of sheet metal bent to provide two resilient arms forming a groove between them, the edge portions of said strip being brought together at the under side of the clamp section; and a tongue section.

2. A clamp comprising a member having a groove therein, said groove being somewhat narrower at its upper open end than in its lower portion, the arms formed by said groove being resilient; and a tongue section adapted to enter said groove and be held therein by the spring clamping action of said arms.

3. A clamp comprising a section provided with a friction surface, said surface being afforded by a tube adapted to receive said

section; and means for stretching said tube upon said member.

4. A clamp comprising a section provided with a friction surface, said surface being afforded by a tube adapted to receive said section, said section having a groove therein, and a member adapted to lie in said groove for securing said tube to said section.

5. In a clamp section, in combination, a grooved member; friction material; and a member adapted to lie in the groove in said member for securing said material to said member.

6. In a clamp section, in combination, a grooved member formed from a strip of sheet metal bent to provide a groove in said member; friction material; and a member adapted to lie in said groove for securing said material to said member.

7. In a clamp, in combination, a grooved sheet metal section; a grooved sheet metal tongue section; a tube of friction material adapted to receive said tongue section; and a member comprising a tongue adapted to enter the groove in said tongue section, and a curved portion at each side of said tongue adapted to overlie a portion of said tongue section.

BURT A. PETERSON.

Witnesses:

W. R. SHEED,
T. N. SLAW.

Corrections in Letters Patent No. 991,640.

It is hereby certified that in Letters Patent No. 991,640, granted May 9, 1911, upon the application of Burt A. Peterson, of Rockford, Illinois, for an improvement in "Clamps," errors appear in the grant and printed specification requiring correction as follows: In the granting clause, line 3, strike out the words "their successors or assigns" and insert the words *copartners, doing business as Barber-Colman Company, of Rockford, Illinois, their heirs or assigns*, and in the printed heading, line 3, for the word "trading" read *doing business*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 18th day of March, A. D., 1913.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.

in the clamp. When the article is to be released from the clamp, the tongue section 2 is withdrawn from the groove 6. When the friction material covering the tongue section 2 becomes worn it may be removed by withdrawing the member 11 from engagement with the tongue section 2. Said tongue section may then be drawn out of the tube 9, inserted into a new tube, and said new tube secured to the tongue section by means of the member 11.

It is obvious that many changes may be made in the embodiment herein illustrated of my invention. I, therefore, do not limit myself to the precise details above set forth.

I claim as my invention:

1. A clamp comprising a grooved member formed from a strip of sheet metal bent to provide two resilient arms forming a groove between them, the edge portions of said strip being brought together at the under side of the clamp section; and a tongue section.

2. A clamp comprising a member having a groove therein, said groove being somewhat narrower at its upper open end than in its lower portion, the arms formed by said groove being resilient; and a tongue section adapted to enter said groove and be held therein by the spring clamping action of said arms.

3. A clamp comprising a section provided with a friction surface, said surface being afforded by a tube adapted to receive said

section; and means for stretching said tube upon said member.

4. A clamp comprising a section provided with a friction surface, said surface being afforded by a tube adapted to receive said section, said section having a groove therein, and a member adapted to lie in said groove for securing said tube to said section.

5. In a clamp section, in combination, a grooved member; friction material; and a member adapted to lie in the groove in said member for securing said material to said member.

6. In a clamp section, in combination, a grooved member formed from a strip of sheet metal bent to provide a groove in said member; friction material; and a member adapted to lie in said groove for securing said material to said member.

7. In a clamp, in combination, a grooved sheet metal section; a grooved sheet metal tongue section; a tube of friction material adapted to receive said tongue section; and a member comprising a tongue adapted to enter the groove in said tongue section, and a curved portion at each side of said tongue adapted to overlie a portion of said tongue section.

BURT A. PETERSON.

Witnesses:

W. R. SHEED,
T. N. SLAW.

Corrections in Letters Patent No. 991,640.

It is hereby certified that in Letters Patent No. 991,640, granted May 9, 1911, upon the application of Burt A. Peterson, of Rockford, Illinois, for an improvement in "Clamps," errors appear in the grant and printed specification requiring correction as follows: In the granting clause, line 3, strike out the words "their successors or assigns" and insert the words *copartners, doing business as Barber-Colman Company, of Rockford, Illinois, their heirs or assigns*, and in the printed heading, line 3, for the word "trading" read *doing business*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 18th day of March, A. D., 1913.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.

It is hereby certified that in Letters Patent No. 991,640, granted May 9, 1911, upon the application of Burt A. Peterson, of Rockford, Illinois, for an improvement in "Clamps," errors appear in the grant and printed specification requiring correction as follows: In the granting clause, line 3, strike out the words "their successors or assigns" and insert the words *copartners, doing business as Barber-Colman Company, of Rockford, Illinois, their heirs or assigns*, and in the printed heading, line 3, for the word "trading" read *doing business*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 18th day of March, A. D., 1913.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.