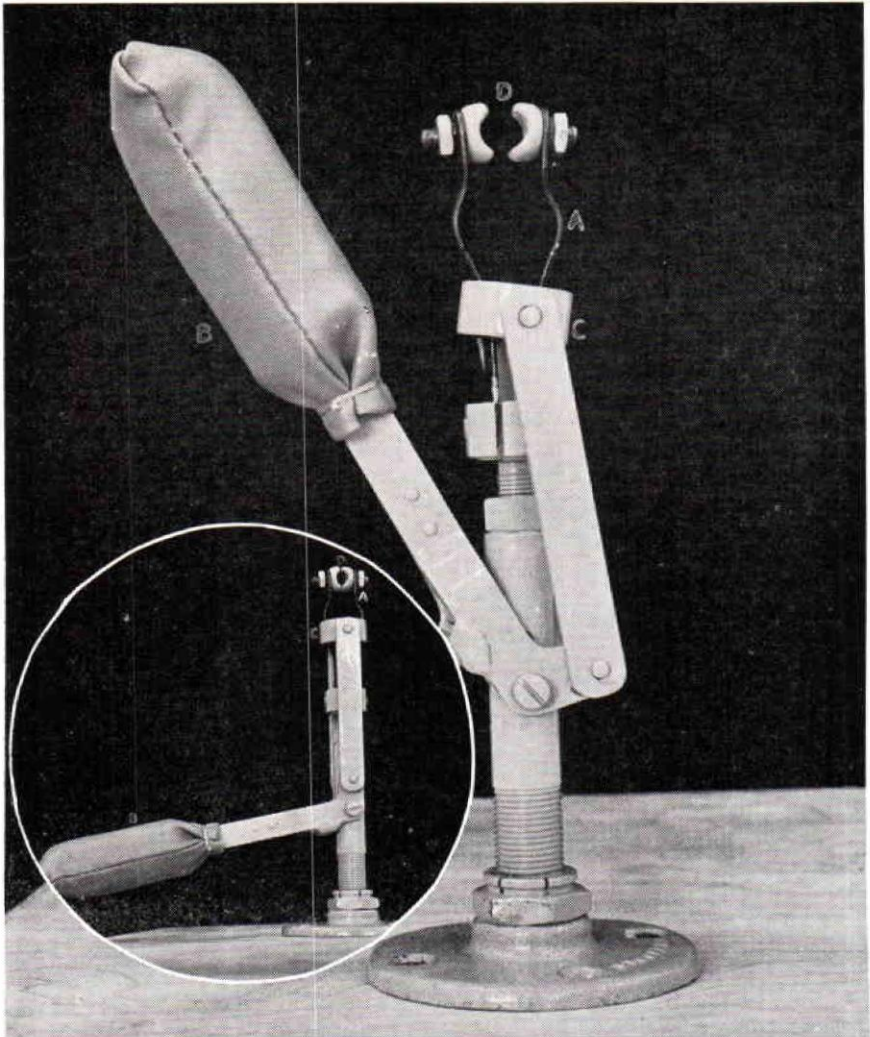


CLAMP DEVICE TO AID IN PLACEMENT OF TUNNEL PINS OF BILATERAL AMPUTEE WITH CINEPLASTIC OPERATED PROSTHESIS

MURIEL E. ZIMMERMAN, OTR* and TOWNSEND M. HICKS**

Complete independence in the use of any prosthesis is the ultimate goal. This means not only the use of the arm itself for performing various functions, but also the ability to put on and remove the prosthesis.



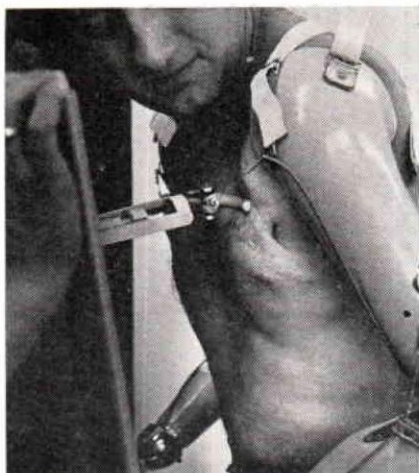
Detail of clamp mechanism. (Open). The circled insert shows the clamp mechanism closed.

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a. Tunnel pin placed in clamp and locked in place with chin lever.

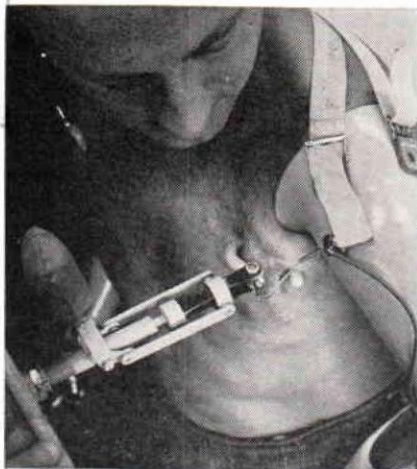


b. Inserting pin in tunnel by moving body over pin.

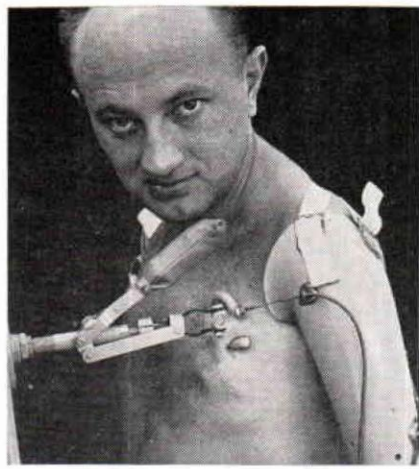
The device shown and described in this article was designed for this purpose. The patient is a bilateral amputee. Prostheses were provided for both arms, in which part of the function was activated by a pectoral cineplastic tunnel. The patient could put on and remove the arms themselves, but he could not place the curved pins in the pectoral tunnel.

A mechanism was needed to hold the tunnel pin. It was constructed as follows:

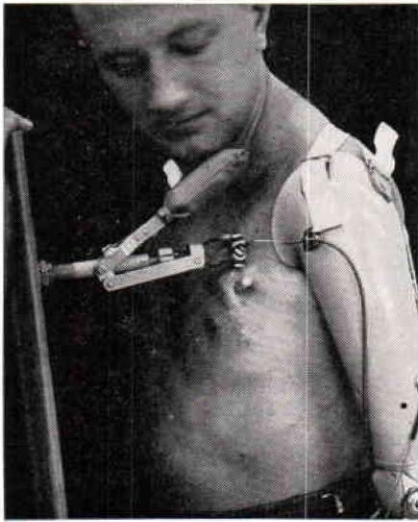
A spring clamp "A" opened and closed by means of a chin-operated handle or lever "B", which raises and lowers a slide ring "C" over the curved portions of the spring clamp. The clamp is provided with special ends "D", shaped to hold the round tunnel pin in a secure grasp; these



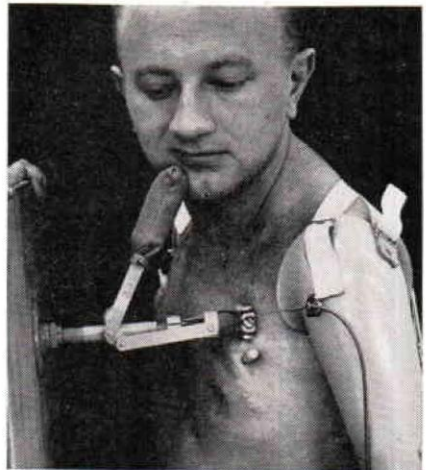
c. Completion of insertion of tunnel over pin.



d. Unlocking clamp from tunnel pin.



e. Locking clamp over tunnel pin (start).



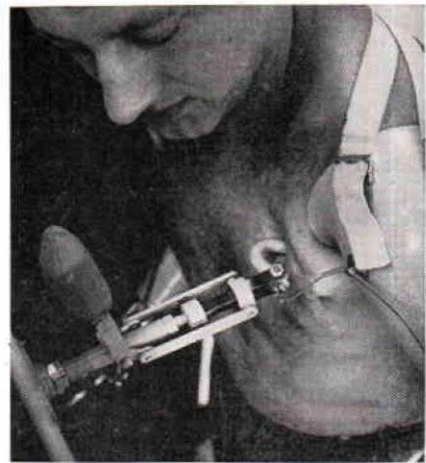
f. Locking clamp over pin (partially locked).

are covered with plastisol. The chin lever is padded for comfort. The whole mechanism is mounted on to the wall or wherever the device is convenient for use.

An added feature, found helpful in placing pin in proper position to go into tunnel, was the provision of the screw portion of the device. By grasping the ends of the clamp in the mouth, the clamp could be rotated to desired angle.



g. Locking of clamp (completion).



h. Removing pin from cineplastic tunnel.

The device is operated as follows:

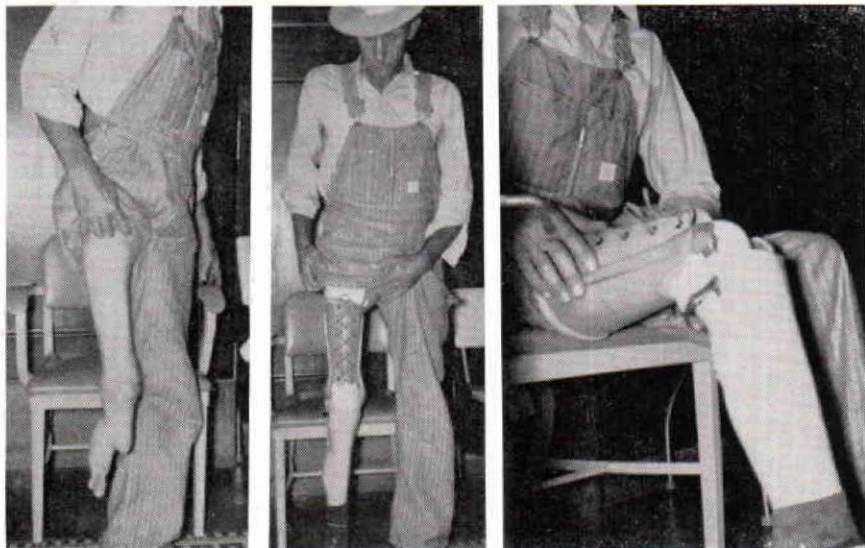
The tunnel pin is picked up by the mouth and placed into the clamp. Clamp is tightened by pushing lever up and away from self. By maneuvering the body, the tunnel opening is brought to the pin and pushed over it into position. When pin is in place, then clamp is unlocked by bringing the lever forward. (See picture series *a* through *d*.) Pin is removed by reverse process (see picture series *e* through *h*).

CONGENITAL AMPUTEE CASE

Reported by DONALD BOHNENKAMP, C.O. & P.

President, Missouri Valley Brace Company, Omaha, Nebraska

Donald R. Bohnenkamp reports to the Journal about the case of a 46-year-old patient who was a congenital amputee. He had a long history of ill-fitting limbs and of not being able to walk properly. He has a small foot attached to the back of his calf. This might have been removed by surgery, leaving an excellent below-knee stump, but the patient could not be convinced that this would be best for him.



When first seen the patient was using a wooden shank with an anterior cutout covered by a laced leather pad. Crutches were necessary for ambulation.

To give him a good fit, the Missouri Valley Brace Company made a molded plastic socket. It was necessary to cut out the posterior wall and hinge it back so that the stump could be inserted easily. The posterior wall was locked in place with a trunk latch type of clasp. Now he has worn this limb for about six months and is quite satisfied with it.

In the accompanying photographs details of the patient's stump and new prosthesis are shown with the prosthesis. There does not seem to be