

TECHNICAL NOTES

FOREST PRODUCTS LABORATORY

U. S. FOREST SERVICE

MADISON, WISCONSIN

No. D-3

BUILT-UP ARTIFICIAL LIMB BLANKS

A new method of constructing blanks for artificial limbs now being tried out at the Forest Products Laboratory promises to be of value to the industry.

Ordinarily thigh sockets require large blocks of willow, which are exceedingly difficult to dry without checking, even though they are carefully air dried for a number of years. It is estimated that the loss of such material in air seasoning ranges from 30 to 50 per cent. The loss in the process of splitting the blocks and carving is also considerable.

The proposed method of constructing blanks makes use of small pieces of willow which are more plentiful and are easier to dry without injury than large blocks. Two types of built-up sockets have been suggested. These are shown in Figures 1 and 2.

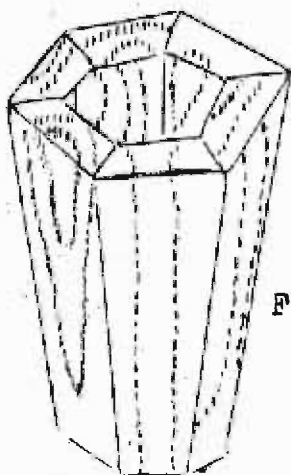


Fig. 1

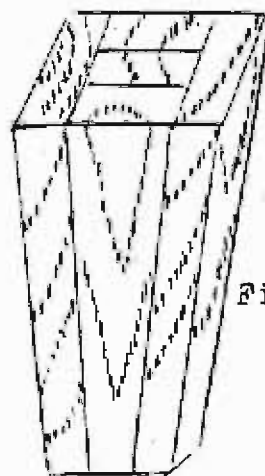


Fig. 2

CONSTRUCTION OF BUILT-UP ARTIFICIAL LIMB BLANKS

One socket is formed of four and the other of six pieces of wood glued with water resistant casein glue. It is thought that butt joints will be satisfactory, though serrated joints may prove better. Practically no wood is wasted in the manufacture of these sockets.