

THE USE OF PREFABRICATED, PARTIALLY DIE-STAMPED LEATHER COMPONENTS FOR ARTIFICIAL LIMB CONSTRUCTION

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— Since early 1958 the VA Prosthetics Center has been using prefabricated, partially die-stamped leather components for lower extremity prostheses. These components are procured in a sufficient number of sizes and shapes so that the manufacture of leather components for artificial legs within the Limb and Brace Section is decreased by 90 to 95%. (The L&B Section continues to manufacture components that are of a non-standard or special nature.) The use of prefabricated leather parts was suggested by Mr. H. Cavanaugh, C. O., Orthopedic Technician, Limb and Brace Section, VA Prosthetics Center.

Time and cost studies on the shop fabrication of these leather parts revealed that the retail contract costs of prefabricated die-stamped components would be slightly less than the prime costs (labor and material) of the conventional shop-produced parts. It was also determined that considerably less floor space would be required for storage and that raw material waste would be appreciably minimized if prefabricated parts were used.

Based on these reasons, the Limb and Brace Section proceeded to procure prefabricated die-stamped leather components for lower extremity prostheses from a commercial supplier* rather than fabricate them within VA Prosthetics Center. It was recommended to this supplier that the parts be made to the size, shape and contour of *samples* prepared by the VA Prosthetics Center and, of course, such parts were to be of the best quality material and to reflect first-class workmanship. The specifications listed below describe the sizes and materials used for each item. (B/K items Nos. 1 thru 6 are shown in Plate A. A/K items Nos. 7 thru 10 are shown in Plate B.)

B/K Components

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| Item No. 1 <i>B/K Belt</i> (Sizes 30" thru 42", Left and Right, in 2" Increments) <ul style="list-style-type: none">a. 2" Gray Dacron and Rayon Webbingb. 7 oz. Strap Leatherc. Medium Horsehided. 3/4" Bag Buckle, 1 ea.e. 3 Rapid Rivets | Item No. 3A <i>B/K Corset, Eyelet Strip</i> <ul style="list-style-type: none">a. 8 oz. Strap Leatherb. Medium Horsehidec. 7 Brass Eyelets (No. A-1190, Stimpson) |
| Item No. 2 <i>B/K Fork Strap</i> <ul style="list-style-type: none">a. 7 oz. Strap Leatherb. Medium Horsehidec. 1" Elastic Webbing, Cottond. 3/4" Bag Buckle, 1 ea. | Item No. 4 <i>Check Lug</i> <ul style="list-style-type: none">a. 8 oz. Strap Leatherb. Medium Horsehidec. 3 Brass Eyelets (No. A-1190, Stimpson) |
| Item No. 3 <i>B/K Corset</i> (6 sizes Left, 6 sizes Right) <ul style="list-style-type: none">a. 8 oz. Strap Leatherb. Medium Horsehide | Item No. 5 <i>B/K Joint Cover</i> (Left and Right) <ul style="list-style-type: none">a. Medium Horsehide |
| | Item No. 6 <i>B/K Tongue</i> <ul style="list-style-type: none">a. 3 oz. Strap Leather |

*From: R & G Orthopedic Appliance Co., 2037 K St., N.W., Washington 6, D. C., low bidder on a VA Supply Contract.

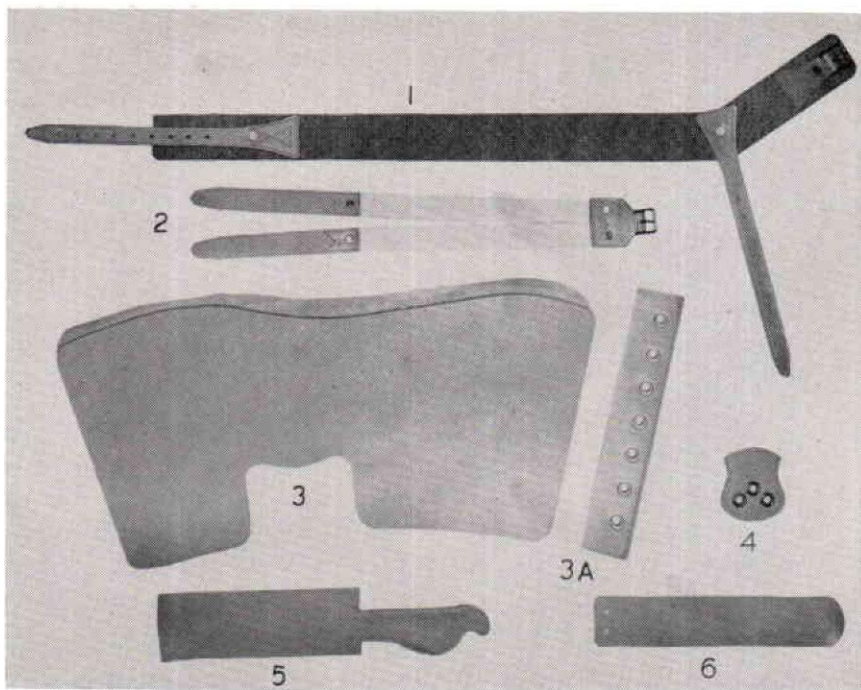


Plate A. B/K Items

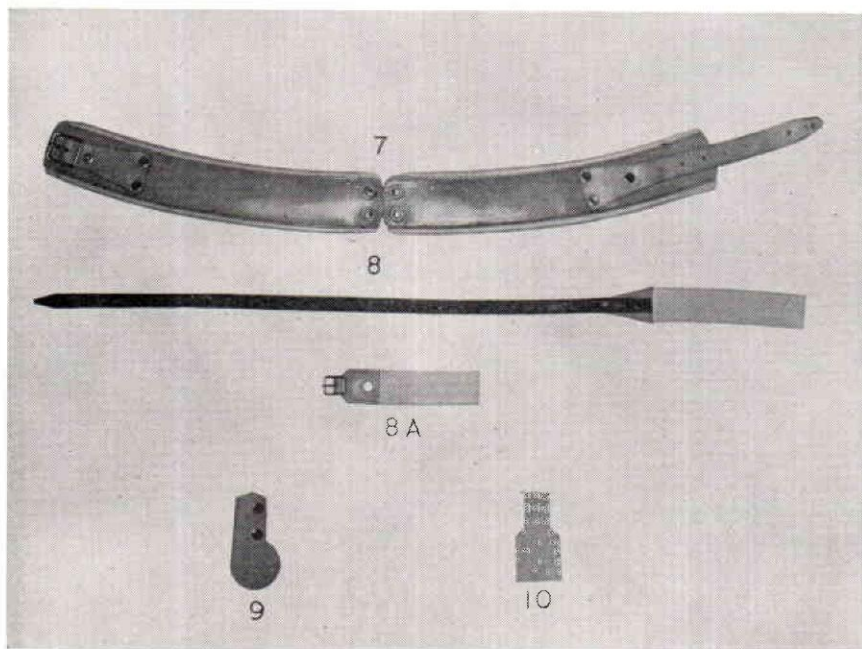


Plate B. A/K Items.

A/K Components

Item No. 7 *A/K Belt* (Sizes 30' thru 42", Left and Right, in 2" Increments)

- a. 5 oz. Strap Leather
- b. 7 oz. Strap Leather
- c. 8 oz. Strap Leather
- d. Medium Horsehide
- e. Litho-Cloth, all Wool, Long Nap, 27 oz. per yd.
- f. 1" Bag Buckle, 1 ea.
- g. 6 Rapid Rivets
- h. $\frac{1}{8}$ x $\frac{1}{4}$ Chrome Lace
- i. 4 Brass Eyelets (No. A-1190, Stimpson)

Item No. 8 *A/K Rear Control Strap*

- a. Latigo Strap
- b. $1\frac{1}{2}$ " Elastic Webbing, Cotton
- c. 1 Rapid Rivet

Item No. 8A *A/K Front Control Strap*

- a. 7 oz. Strap Leather
- b. $1\frac{1}{2}$ " Elastic Webbing, Cotton
- c. $\frac{3}{4}$ " Bag Buckle, 1 ea.
- d. 1 Rapid Rivet

Item No. 9 *A/K Joint Cover*

- a. 3 oz. Strap Leather
- b. 2 Snap Buttons

Item No. 10

- a. Medium Horsehide

When the first shipment of the parts was received, they were given a 100% inspection. With the exception of a few minor revisions, the parts were satisfactory. The materials, sewing, and workmanship were according to specifications, reflecting excellent workmanship. The *die-stamped* portions of these leather artificial leg components were particularly clean and uniform throughout. All components except items 3 and 3A (these two items require slight modification) can be used as they are received from the manufacturer.

Limb and Brace Section experience with the prefabricated artificial leg leather components has been so favorable that prefabrication of some leather Brace parts and of some Upper Extremity prosthetic leather components is being considered. The long-term possibilities of flexible plastics as substitutes for many leathers that are in use today are also under study.

NEW ADDRESSES

Carl A. Thomsen, C.P. and Hal R. Kettle announce the removal of Physicians Orthopedic Service on Monday, October 6, 1958 to 2529 Fourth Avenue, San Diego 3, California. The telephone number is BELmont 9-2021.

The Ace Orthopedic Company of Los Angeles has moved to new and more convenient quarters at 5430 Santa Monica Boulevard, Los Angeles 29, California. The telephone number is HOLlywood 4-4400. A branch is maintained also at 425 South Pacific Coast Highway, Redondo Beach, California. The telephone number at this branch is FRontier 6-3397. Hy Christensen is owner and manager of Ace Orthopedic Company.