

THEY SAID IT COULDN'T BE DONE!

(Continued from previous page)

Whatever happens, those factories and workshops must forward their products in a steady stream to the key plant, enabling the assembly line to move along at a predetermined speed, to deliver a predetermined number of Universal Carriers to the Army, which is the hungry customer waiting for them.

Raw Material to Finished Product

At one end, then, of the line, is the raw material from which is built up the body of the Universal Carrier, big stacks of armoured steel waiting to be sliced up, exactly as a tailor sets to work on a roll of cloth when he prepares to make a suit; and at the other end is the finished Carrier—finished, that is, except for its armament, without which it is a "man of war without guns". As it moves along, floor, sides, and compartments slowly take shape, tacked together by quick joints at first, later painstakingly welded into a rigid whole. It is cleaned, painted, takes to itself part after part—engine, petrol-tanks, steering gear, all the complicated mechanism of transmission and drive, and near the end, the weighty track, itself an aggregation of some hundreds of component parts. It is a sudden metamorphosis. At one point a bare cumbersome steel hull; fifty yards farther along, the shape of the finished carrier is beginning to appear.

The assembly line is a super-Wellsian glimpse of a new, industrialised world; a picture which, could it be compressed within the limits of a canvas, would epitomise the part played by industry in mechanised war. At times there is a clanging and banging as of a thousand men battering with hammers on a thousand iron plates; at times silence broken only by the hiss and splutter of the welders, working away intently behind their masks, each the centre of a circle of blinding light.

Long Hours of Work

If ever men close their eyes gratefully at the end of a working day, welders should. Hours on end they must concentrate fiercely, intently, on the source of that white light, where steel plate is being fused with steel plate. Somehow, under pressure of the country's emergency, they have managed to work hours which would reduce most workmen to physical wrecks. Over one eight weeks' stretch they were at their jobs 77 hours every week. When overtime, with its accompanying fatigue, mounts up like that the extra money earned is small incentive, the management of the plant points out.

And the high pressure at which the plant has been working month in and month out has produced its results. Naturally output figures are not available, but it is known that this plant has been equalling the output of any one plant in Australia. Continuance of that rate depends on several factors, not least of them the supply of raw materials.

Every Universal Carrier is tested before it is handed over to the Army. Not as severely tested as was Carrier No. 1, but severely enough to bring to light, say, a badly-cast bogey spring, or a faulty caterpillar tread. Supervision of the Universal Carrier does not end when it is handed over to the army. There are many fine points about its maintenance, and at the request of the Army, the parent plant is setting up a school for training Army mechanics in the repair and upkeep of Carriers.

If you ever get the opportunity of examining a Universal Carrier at close quarters, you may be intrigued by a series of small pits and dents in its armour plating, usually one to each plate. That is evidence of the army's essentially hard-headed practical way of doing things.

"These armoured steel plates are supposed to be bullet proof", some one apparently reasoned. "Very well. The best way to test them, then, will be to fire bullets at them." And the soldier who goes into action in a Universal Carrier will have the satisfaction of knowing that every armoured plate protecting him has stopped at least one bullet already.

Whether or not New Zealand industry will benefit after the war from the lessons learned in the mass production of this war vehicle, remains to be seen. In the meantime it is a tribute to the resourcefulness of industry that it is being built here at all, and every Carrier which rolls off the assembly line, means one more valuable fighting machine added to New Zealand's defence, one more link in a chain of steel slowly being forged around these islands.

MORSE TESTS

No. 12 Course

WEDNESDAY, April 22

1—E, L, M, Q, D; 2—A, G, O, H, Y; 3—L, Q, C, R, L; 4—D, P, R, E, K; 5—M, J, E, T, I; 6—N, K, C, W, P; 7—T, W, E, V, C; 8—M, U, E, A, F; 9—Q, R, L, D, O; 10—Y, F, Q, Y, M; 11—F, C, I, Z, B; 12—L, J, N, X, E; 13—B, R, V, R, S; 14—X, I, F, O, N; 15—Q, B, D, U, C; 16—L, W, E, R, V; 17—P, Q, M, P, G; 18—T, J, T, C, Q; 19—X, S, D, I, L; 20—P, P, Z, T, Y; 21—V, Q, N, M, E; 22—H, W, O, G, O; 23—S, P, C, E, F; 24—Q, J, N, D, T.

THURSDAY, April 23

1—V, B, G, H, U; 2—C, E, K, G, H; 3—Z, R, Y, O, K; 4—D, K, F, J, D; 5—S, O, K, F, V; 6—B, D, V, I, N; 7—C, D, F, W, X; 8—D, C, P, H, X; 9—G, P, C, B, S; 10—C, S, Q, U, T; 11—A, E, L, I, D; 12—P, M, R, C, M; 13—M, N, H, U, J; 14—B, L, F, Z, S; 15—F, Q, H, K, E; 16—Y, T, B, X, Z; 17—F, A, T, D, G; 18—C, Y, H, P, H; 19—R, G, A, X, N; 20—U, A, R, N, S; 21—U, R, G, W, D; 22—B, L, V, E, D; 23—S, K, D, J, Q; 24—N, G, K, Y, A.

Linguist

JOY McARDEN—you may have heard her song recital in the BBC's Pacific Service—sings in eighteen languages. And not only sings, she speaks a number of them, too—English, French, Dutch, Flemish, Danish, Norwegian, Afrikaans, and German, states the BBC's *London Letter*. Her songs range also over the Russian, Finnish, Czech, Arabic, Hebrew and Yiddish, and Persian tongues.

Miss McArden studied voice production with Tamenti (friend of Battistini), operatic roles with Blachi Marchesi, and singing with Nina Grieg (Grieg's widow). She made her operatic debut in *Mignon*, singing in Danish, at the Royal Opera, Copenhagen. She appeared by Royal Command of H.M. Queen Wilhelmina, apart from other performances in Holland. She has sung also in Paris and in other European capitals.



LAST year admirers of the late Sir Charles Kingsford Smith were able to inspect a remarkable memorial collection of models and photographs of the Southern Cross, the work of an Australian named Austin Byrne. Proceeds, which were in aid of a Kingsford Smith memorial ambulance for the Royal New Zealand Air Force, were added to by a series of R.N.Z.A.F. band concerts, and recently a fine new ambulance was handed over to the Government by B. T. Sheil, deputy-controller of the CBS and a former associate of "Smithy." This picture was taken during the handing-over ceremony, and shows the Prime Minister, the Rt. Hon. Peter Fraser, the Minister of Defence, the Hon. F. Jones, and some of the gathering present.



WHAT are YOU doing today to help your country?

If you can't fight, you can—and must!—LEND—to support financially the rapid development of New Zealand's offensive power.

Open a National Savings Account . . . Buy National Savings Bonds . . . Keep on lending . . . Keep on adding to your . . .

3% NATIONAL SAVINGS

Inserted in the National Interest by the National Carbon Pty. Ltd.

Manufacturers of **EVEREADY** Torch and Radio Batteries

ER/42/821