

PROTECTIVE AIGLETS . . .

experts of the Royal Dutch Shell Group, who made a major contribution to the project, were among the pioneers in this method of crop protection.

Seventeen thousand acres were widely sprayed along both sides of the White Nile, about 100 miles south of Khartoum, over a distance of 120 miles and in plots varying from 30 acres to 3,000 acres. These areas in turn consisted of fields varying in size from five acres to 200 acres, the average being 75 acres. The average area covered during each spraying hour was about 70 acres, the deposit varying between two and four gallons of liquid, applied from a height varying between six and 15ft, depending on weather.

On one occasion 280 acres were sprayed in 15 min, the Aiglets operating from a landing strip adjacent to the crop. So efficient was the ground organization and filling equip-

ment that the turn-round from "wheels on" to "wheels off" averaged only a minute and a half.

Trees, telephone wires and birds were among the hazards. Flocks of birds were encountered, ranging in weight from two oz to 14 oz for each bird, and there were single birds of up to ten lb or more. One of the latter struck the windscreen of an Aiglet but caused no damage whatever—probably having been dissected by the airscrew.

The special spraying equipment to give the range and output achieved was designed by Mr. P. C. Andrews, a director of Aerial Spraying Contractors, Ltd. It consists of a retractable windmill-driven pump connected to a 48-gall tank, and a double spray-bar beneath the wings. The gear was fitted, and fully approved by, Auster Aircraft, Ltd. The ground-filling unit, specially designed to pre-mix the insecticides, embodies a Lee-Howe pump, with which it is possible to fill the aircraft spray-tank in about 25 sec.

EXTRUDED AIRSCREW - BLADES

ASSOCIATED for many years with the development of the metal airscrew and welded hollow-steel blades, the propeller division of Curtiss-Wright Corporation now announce a successful conclusion to two years of experimentation in producing hollow blades by extrusion. Working in conjunction with the airscrew laboratory of Air Matériel Command at the Air Force Development Centre, Adrian, Mich, the Curtiss-Wright engineers claim to have carried the new process "well beyond the experimental stage," and production arrangements are being planned.

As is so often the case with initial news-releases by American manufacturers, authoritative technical details are lacking, but it would appear that the process begins with the extrusion, through suitable dies and at white heat, of a 400-lb chrome-nickel-molybdenum steel billet; a 5,500-ton press is employed.

The blade emerges as a seamless tube of tapered wall-thickness and circular cross-section, and with a flange running from root to tip on each side. In subsequent operations the tube is partly flattened and formed between dies to the required blade-section, the flanges then being machined into leading and trailing edges; the normal finishing processes follow. Before the machining operations, it is stated, the tube for a 10-ft blade weighs 200 lb, as compared with the 750 lb of an orthodox hollow blade at the same stage of manufacture. The blades are being made with the now widely adopted rectangular tips.

The billet, the extrusion and the finished blade. Francis O'Leary, general manager of Curtiss-Wright propeller division, stands by to give them scale.



Escapism—and Why Not?

"Flight of Fancy." By James Riddell. Robert Hale Ltd., 18, Bedford Square, London, W.C.1. Illustrated. Price 25s.

BY a rare stroke of good fortune, we recently received a copy of *Flight of Fancy* at the same time as the inevitable 'flu. No finer tonic could have been prescribed. Within a very few minutes we were airborne in Proctor G-AKIW (*Item Willie*), bound for the romantic and sunny East, with no less a person than Nevil Shute at the controls and with James Riddell to provide a fascinating, very human commentary on places and people of interest en route.

Soon Britain and Fill-dyke February were far behind as "the lovely panorama of the French Riviera and the Italian Riviera floated by below us in the sunshine. We circled the town of Pisa, and the Leaning Tower stood straight while the rest of the world tilted to impossible angles." On to Rome, Naples, "which we saw and did not die," Brindisi, Corfu and Athens, where Mr. Riddell first introduced us to his dreams; they were scarcely more remarkable than the 30,000-mile, six-month journey to Australia and back that lay ahead of us. Never a complaint from *Item Willie's* gallant little Gipsy Queen as Cyprus, Lebanon, Syria and Iraq were left behind; then India, Burma and on to Bangkok, Singapore, Indonesia and Bali, to which we—especially Mr. Riddell—had been looking forward eagerly for 108 pages.

We landed. "Nothing but palm trees all around. Formalities?

What on earth for? Is not this Bali? Drove the ten miles to Denpasar through flat but delightful countryside—palm groves, padi fields—cows with wooden bells round their necks—villages with palm-leaf houses—temples—carved stone statues of Gods—happy Balinese faces—and, of course, bare-breasted girls in sarongs . . ." Before long we were introduced to the weird and beautiful ritual of trance dancing, a Belgian Gauguin and his lovely wife Polak, child Changer dancers, mysterious "looking disks"—part of the lost magic that used to be understood when the East was as young as the West—and scores of other fascinating sights and sounds.

This is a book to make one forget wars, rumours of wars, rationing and all other fruits of modern civilization. It certainly made us forget our 'flu, and is worth buying for the 69 superb illustrations alone.

J. W. R. T.

Next R.Ae.C. Film Show

THE next film programme to be given at Londonderry House for members and associate members of the R.Ae.C. will be on April 18th at 6.15 p.m., when three films will be shown. They are *Pegasus*—the story of the Airborne Forces; *Air Beef*—the "meat-lift" operated by Australian National Airways (an article on this subject, incidentally, appeared in last week's issue of *Flight*); and *Supermarine*—covering the development of Supermarine and Vickers-Supermarine types from the Schneider Trophy seaplanes to the 510 jet fighter.