



AERONAUTICS—ENGINEERING

Retractable Wing Pontoons For Giant Flying Boats

Patents Are Also Granted on Improved Machine Gun,
Radio Beacons, Alloys, Warm Sheets, Vulcanized Carpet

HIGHER flying speeds and greater flying range are promised by a new method of retracting the huge wing pontoons of great seaplanes into the wings, described in Patent No. 2,187,040 granted by the U. S. Patent Office to I. M. Laddon, W. A. Ring and H. I. Mandolf of San Diego, Calif., and assigned to the Consolidated Aircraft Corporation. The patent shows how the landing pontoons fold up beneath the wing tips, become part of the airfoil section and decrease air resistance greatly.

An improved type of machine gun which is claimed to provide more accurate firing is described in patent No. 2,186,969 of Samuel G. Green of Gray, Ga. The invention times the firing position of the gun so that it comes always at the proper period of the recoil and counter recoil cycle. According to the patent, other machine guns fire when the breech block is near the closed position regardless of the position of the gun in its recoil cycle.

A new kind of vulcanized, sponge rubber carpet is the invention of H. P. Faris, Philadelphia, and D. W. Yochum and R. B. Logan of Trenton, N. J., granted patent No. 2,187,140. The car-

pet fabric is cemented onto a base of soft rubber which is simultaneously vulcanized and blown with air to form a sponge rubber base.

Two new types of radio beacon systems were among the patents of the week, No. 2,187,097 to Francis Pope of Glendale, Calif., improves the present quadrant signals which are now used extensively in aviation to mark airports. Signals A and N are sent in code by this device. They blend into an "on course" signal in the pilot's earphones.

The new invention overcomes a prior trouble of these systems; that the pilot—when receiving the on course signal, could not tell by the signal alone along which line he was approaching.

Another new radio beacon is that of Ernst Gerhard of Berlin (No. 2,187,618) which employs a parabolic type of reflector to project—in searchlight fashion—two nearly parallel short wave radio signals into space. As these signals diverge, a line of equal intensity is provided which can be used to mark a given position or a line of descent for an airplane.

From Germany also came patent No. 2,187,094 granted to J. Pink of Weiss-

wasser in Lausitz for an improved means of spinning glass filaments and fibers from molten glass.

Two new metal alloys received patents. No. 2,187,379 went to F. R. Hensel and K. L. Emmert of Indianapolis, Ind., for a new silver base alloy of high tensile strength that is useful for electrical make-and-break contacts and switches.

Charles J. Schafer of Baltimore, Md., was awarded patent No. 2,187,630 for a superior quality alloy metal for machine cutting tools. Among the elements used in the alloy are iron, zirconium, molybdenum, yttrium and combined columbium-tantalum.

For sleepers who dread cold sheets on a chilly night is patent No. 2,186,965 of Annette Fridolph, New York City, for a sheet woven in two ways. The middle part is the standard weave with its relatively smooth, cold feel, while the ends are woven with a napped surface forming a relatively soft, warmer surface.

To the well-known facsimile expert W. G. H. Finch, Spuyten Duyvil, N. Y., was awarded patent No. 2,187,374 for an improved method of transmitting colored and black-white pictures over telegraph lines.

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EUGENICS

Four to Six Children Urged At Birth Control Meeting

DEMANDS for large families, with four to six children the rule, not the exception, were made, paradoxical as that may seem, at the meeting of the Birth Control Federation of America. At the same time, the support of the birth control movement by labor unions was hinted.

The demand for large families by proponents of birth control is not surprising to those who have followed the movement. Except in cases where medical or health conditions show that childbirth would be dangerous for mother or child, small families or childless marriages have not been advocated by the Birth Control Federation.

Planned parenthood is the objective of this group: Planned parenthood for large families among the rich, the poor and the college-educated, alike, but planned so that the children are no closer than two years.

"Births should be spaced two to four years apart," declared Dr. Roy Norton, of the University of North Carolina. North Carolina was the first state in the nation to have a birth control program