

bite is to push one's clenched fist into the mouth of another in a fight.

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Eye Used by Four

AN EYE that has been transplanted three times, serving as a seeing organ in four separate individuals, was on display at the meeting of the American Medical Association. The eye belonged originally to a salamander. It is part of an investigation on causes of blindness being carried on by Dr. L. S. Stone and Dr. Frederick A. Wies, of Yale University School of Medicine. When the eye is transplanted, the seeing part, which is the retina, at first degenerates almost completely.

Between two and three months later, however, a new retina has formed and grown nerve connections to the brain. Not only can one eye be transplanted completely from one salamander to another, but eyes can be exchanged between animals of different species, without loss of eyesight.

Chances of transplanting an entire eye in man are remote because, for one thing, no one would want to sacrifice a good eye for the sake of the experiment. In rats, which are much closer to man than salamanders are, complete transplantation of eyes has not succeeded. The eye has healed and developed a blood supply following the transplantation, but vision has not returned.

The pin-point eye of a half-inch-long, pearly pink baby opossum may give doctors knowledge of the cause, and then, possibly, of how to prevent, cataracts in children. Dr. Stone had just started this part of the study. The baby 'possum was chosen because at birth it has an eye in the same stage of development as the human eye five weeks after the human baby starts to form in its mother's body. It is at this stage, doctors believe, that the damage which results in cataract occurs to the eye lens. Dr. Stone is trying now to find what conditions cause such damage.

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Coins less than a fifth of an inch in diameter were among those used in India more than 2,200 years ago.

The Pacific entrance to the *Panama Canal* is 27 miles farther east than the Atlantic entrance.

One person in ten in this country has some *speech defect* or voice abnormality, says a physician.

AERONAUTICS

What Army and Navy Planes Are Being Furnished Allies

Although Navy Was First To Release Planes, Army Is Likely To Trade in the Largest Number

A WIDE variety of Army and Navy warbirds is now available to the Allies under the administration's new trade-policy, it was agreed in aviation circles, though opinions differed on how far Allied needs would be allowed to go in stripping the American air services.

Here are thumbnails of Army and Navy favorites which no one dreamed a year ago would ever engage in anything more deadly than mock combat with cameras for guns:

Curtiss SBC-4, the famous Navy "hell-diver" of which 50 have been ordered back to the manufacturer in Buffalo. It is a scout bomber, top speed about 270 miles an hour, dive-bombing specialist and therefore useful for ground attack. Full data have not been released by the Navy. The 50 already released were land-based for the use of reserve pilots. Scores more are on duty aboard the Navy's carriers.

Vought SB2U-1, a monoplane Navy scout bomber. Forty of an almost exactly similar model, the V-156, were delivered to France last winter. The Navy has dozens of these aboard carriers: two squadrons of 18 each on each carrier. France has a new carrier which has not yet been equipped with planes. Unlike the helldiver, however, few Voughts, if any, are on reserve duty. Top speed of the V-156, 259 m.p.h.

Curtiss P-36, the Army's standard pursuit plane. Hundreds have been in action in France since the start of the war and have proved extremely successful against the famed Messerschmitt 109, despite the fact they are not quite as fast. The French P-36 has been altered by mounting six instead of two machine guns and the installation of armor. Top speed of the Army's Cyclone-powered machine, just over 300 miles an hour; top speed of the twin-wasp-engined French plane 315—but the French systematically overrun the motor. Engine failure is not most important risk that a pilot at war takes.

Douglas B-18 bombers: military versions of the ubiquitous DC-3, 21-passenger airliner. The Army has more than 200. They are slow, 225 miles an hour, partly because speed was sacrificed to

range. The Army has already begun replacing them with 290-mile-an-hour Douglas B-26 and Martin B-23 heavy twin-engined bombers. Canada already has about twenty B-18s for coastal patrol work. If the Allies want B-18s it is a good bet they will be released.

Douglas Northrop A-17 attack planes: 250-mile-an-hour hedgehoppers built for attacking troops. They are obsolete and are to be replaced by North American and Douglas attack bombers, which have two engines and are bigger and much faster. The Army has a couple of hundred A-17s.

Grumman biplane fighters, of several different types: these are the deep-bellied squat planes you think of nine times out of ten when you think of Navy fighters. Top speeds, around 250 miles an hour; among the most maneuverable craft in the world. They are being replaced by Grumman and Brewster monoplanes which are much faster, but of which the Navy has few on hand.

Other models will probably be released but these are the most important.

Though the Navy was the first to actually release any planes, as was the case during the Russo-Finnish war, when 42 Brewster F2A-1 monoplane fighters on order were turned over to Finland, there is a likelihood that more Army planes than Navy will be traded in. The fleet's ship-borne aircraft and the patrol bombers of the scouting force are an important Naval element, and the fleet is still the first line of defense. If any American armed service ever sees action, a possibility which strategists cannot exclude even in days of calmest peace, it will be the Navy. Similar reasoning will probably also decide that among the Army squadrons the first to be stripped will be National Guard and reserve units and the last the powerful wings which guard the Canal Zone and Hawaii.

Many of the planes to be released to the Allies are obsolete or obsolescent. But they are at least as good as many actually in service on both sides of war zone. And one of the lessons of the war is that quantity is far more important than quality.

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