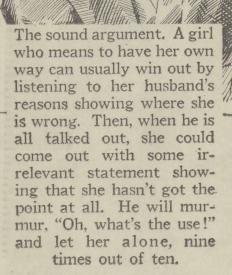
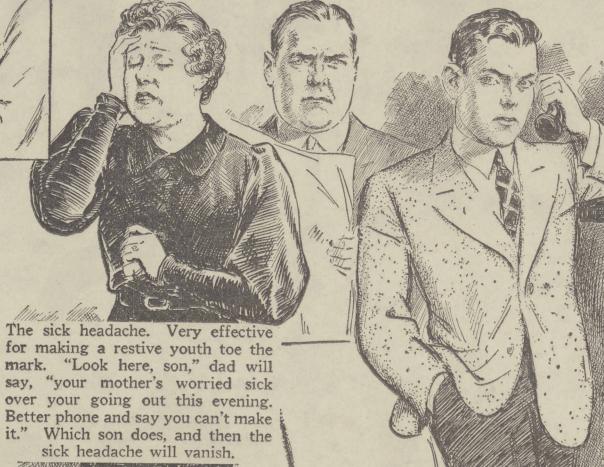
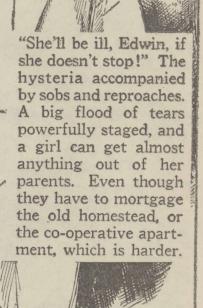


By W. E. Hill









The sulks. If a husband is the right type—that is, if he looks unpleasant enough when playing hurt feelings because the wife was selfish and wanted her way-he can probably have everything as he wishes. A wife can stand a grumpy, sulky male around the house just so long.

The pathetic stuff. Elderly ladies who find they are not getting their desired ends resort to this method. "Nobody cares what happens to a poor old lady. Nobody cares whether she ever gets taken to the movies or not!"



The cheerful surrender. Accompanied by a sad little smile, this goes big with a male escort. Makes him feel like a big, hulking brute and he lets her have her own way eventually.

## What's New in World of Airplanes and Air Transportation

## Lockheed 12 Air Bureau Choice

way. When crossed, she

thinks nothing of hurl-

ing a lamp or a bit of

choice chinaware at

the crosser. Therefore

people let her have

her way.

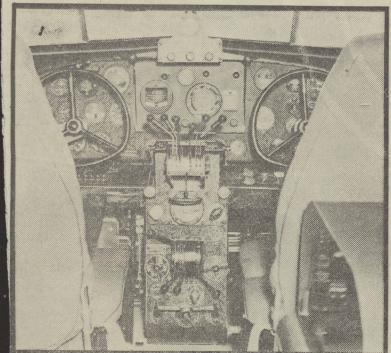
By WAYNE THOMIS

HE air commerce bureau's new Lockheed 12, with two Pratt & Whitney Wasp Jr. engines rated at a maximum of 450 horsepower at sea level, is probably the fastest and one of the best equipped bimotored commercial airplanes in the world. This machine carries every device developed thus far to aid the pilot in allweather flying.

The Lockheed 12 is the machine which won the first award in the competition instituted by the air commerce bureau for a small twin-



The Lockheed 12, a smaller version of the Lockheed Electra. Bennett Griffin, the air commerce bureau's pilot, is showing the ship to Eugene Vidai, director of the bureau.



Looking at the instrument board in the pilot's cockpit. The giro pilot, the throttles, mixture controls, and a few other instruments show in the picture.

engined transport. It is a smaller has the twin rudder with the excep- cators have been grouped together, version of the Lockheed Electra, tionally long and narrow horizontal which is a ten-passenger plane stabilizer and elevator that characproved by nearly three years of fly- terize the Electra. ing on the commercial air lines. As The cabin is 5 feet high and 5 feet sold to the air commerce bureau wide at its maximum and is 14 feet experience in the air. the Lockheed 12 has seats for four 8 inches long. In this particular passengers and two pilots.

The airplane was delivered to Bennett H. Griffin, expert in blind flying for the bureau and a member of that select company of trans- flight aids are the Sperry giro pilot, of rated full throttle, from each ago. He flew the ship to Washing- ables the pilots to adjust the fuel ton, where it is to be kept as a staf mixture to the most efficient ratio probably is obtained by flying at vehicle for the air commerce bureau. reau, flew out to Chicago in the icer panels attached to the leading type 12A state that the cruising ship to attend the National Aeronautical association convention held here on Dec. 1.

ship one portion of the cabin has been filled with radio equipment, reducing the regular passenger seat-

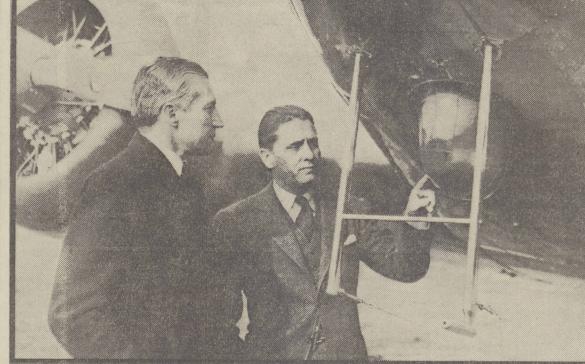
ing capacity from six to four seats. Controls for all the regular and special equipment on the ship jam the cockpit. Among other unusual Atlantic flyers, only a few weeks an exhaust gas analyzer which enat any altitude, two-way radio, a altitudes above 12,000 feet. Lock-Eugene Vidal, director of the bu- new radio homing compass, and de-

The accompanying cockpit photograph indicates the maze of instru- at 5,000 feet with the same power The Lockheed 12 is a low-wing all- ments and controls that surround is 200 m.p.h., and at 9,600 feet with metal plane with retractile landing anyone flying this airplane. They the same power is 208 m.p.h. gear and heat and sound proofing. have, however, been arranged so The Pratt & Whitney engines de-The wings span 49 feet 6 inches and that all can be read at a glance liver 300 horsepower at 2,000 r.p.m.

navigating instruments are segregated, and other indicators have been placed in locations found to be favored by flyers with considerable

Publicity issued by the Lockheed company states that the cruising speed of the airplane is 213 miles an hour and that this is obtained by using 300 horsepower, or 75 per cent

The speed seems very high. It heed company specifications for the edges of the wings and tail surfaces. speed with 300 horsepower from each motor at sea level is 190 m.p.h.,



This is the loop of the radio homing compass. It is inclosed in pyrolin and is under the floor of the pilot's cockpit. Griffin at left, Vidal at right.

horsepower, also recommended as a favorable cruising setting. At that power the speed of the 12A is 180 m.p.h. at sea level, is 188 m.p.h. at 5,000 feet, and 200 m.p.h. at 12,000

Maximum range of the ship is 1,000 miles. The engines consume .52 pounds of fuel per horsepower hour with an output of 300 horsepower and .48 pounds per horsepower with the 260-horsepower output. The plane can maintain a ceiling of 10,000 feet with full load and one engine stopped. This is increased to 11,200 feet if half the fuel is dumped when flying with but one

The plane lands at 64 miles an hour at sea level, getting under the air commerce limitation of 65 miles an hour by the scant margin of a single mile. This is achieved with the use of a trailing-edge split flap. Without the flaps the landing speed the fuselage is 36 feet 4 inches. It after a little practice. Engine indi- At 1,800 r.p.m. they deliver 260 is more than 70 miles an hour.

ceiling or altitude at which the is 24,200 feet.

The plane climbs at an initial rate climb falls below 100 feet a minute of 1,400 feet a minute. The service is 22,900 feet. The absolute ceiling



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