AERONAUTICS

New Robot Pilot for Planes Warns If Instruments Err

Newest Addition to the Instrument Board Can Flash As Many as 90 Lights for as Many Kinds of Trouble

AVIATION has a new robot pilot which automatically warns the men in the cockpit if something goes wrong. It is arousing wide interest among airmen as a possible safety advance of first rank importance.

Developed by engineers of the Curtiss-Wright Corporation's St. Louis Airplane Division under C. W. France and George Page, Jr., the new "tell-tale" robot can flash on 90 lights to announce as many kinds of "trouble" before it happens. It "watches" the plane's instruments continually.

If landing flaps are not operating properly when the plane comes in for a landing, for example, a light labelled "wing flaps" flashes on and calls the human pilot's attention to the situation. If the airport battery car is still plugged in when the pilot gets ready to start, the indicator lights another lamp.

Failure to notice a dial that shows something out of kilter will be prevented by such a device. It may help prevent accidents in the future by simplifying the task of pilots in the midst of an increasingly complex welter of instruments.

The "tell-tale" indicator is the second robot pilot to find its way into the cockpit. The first, the gyro-pilot, is today at the controls nine-tenths of the time commercial airliners are aloft.

Ten pre-selector switches enable the pilot to set the system for each of the main operations concerned in flying an airliner. Pressing one of the switches picks out the particular combination of instrument readings and control adjustments proper to the chosen operation. Deviation from the proper combination causes the revealing light to flash on. Switches are provided for test, start, taxi, take-off, left engine, right engine, cruise, landing, stop and off.

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ARCHAEOLOGY

Ruins Yield Clues To Hittite Palace Life

THE MYSTERIOUS Hittites are not nearly so mysterious as they used to be.

Archaeologists are persistently digging up Hittite cities in Asia Minor and Syria to the north and northwest of Palestine. As a result, Hittites are now classed respectfully with the big powers of antiquity, and their two eras of expansive empire, when they dominated wide regions of the ancient world, are being restored in some detail to pages of history.

One gap in knowledge of Hittite fortunes has been the time between 1650 B.C. and 1400. That was between the two great empire eras, when Hittite kings seem to have lacked the militaristic urge to power.

So, it is a red letter Hittite day when Sir Leonard Woolley excavating for the British Museum at Atchana, near Antioch in northern Syria, finds a Hittite palace that was built about 1600 B.C. and burned near 1400.

Whether the era was considered a time of fortunate peace, or one of weak depression, by people in those days, the palace ruins at Atchana suggest that Hittite rulers there lived well and conducted business as usual.

Wrecked by fire though it was, the palace ruins tell an amazing lot to an archaeologist. Sir Leonard identifies suites of rooms with bedroom and bath and points out women's apartments marked by the combs, pins, trinkets and toilet boxes in the debris. Other rooms containing little besides clay tablets and wine jars are presumed to have belonged to scribes—the secretaries and clerks.

In one annex to the palace is a suite of work room, bedroom and lavatory, which belonged apparently to the archivist, since a room built especially for storing records is near it. Most of the tablets stored here were removed in the fire 3,400 years ago, but elsewhere in the annex offices 300 clay documents awaited the archaeologists.

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FORESTRY

Plant Grove in Hope Of Saving Chestnuts

KEEPING alive a remnant of America's nearly vanished chestnut forests is the task which botanists at North Carolina State College near Raleigh, N. C., have set for themselves. The species has been practically wiped out during the past 35 years by a fungus blight.

The botanists at State College have planted a grove of healthy young chestnut trees, 200 miles from the nearest natural chestnut habitat, in the hope that this isolated little group will escape the blight. The trees have now been standing for four years and appear healthy.

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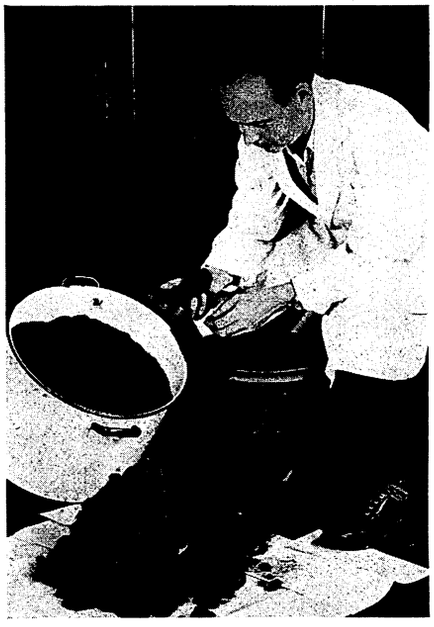

WHERE IT GOES

Here's what happens to some of the hair that finds its way to barber shop floors—it goes into the manufacture of amino acids, building blocks of nature from which life-essential proteins are made and which have a variety of uses in science. The photo shows a laboratory assistant cleaning a tub of hair.

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