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September 8, 1951

SCIENCE NEWS LETTER

®

THE WEEKLY SUMMARY OF CURRENT SCIENCE



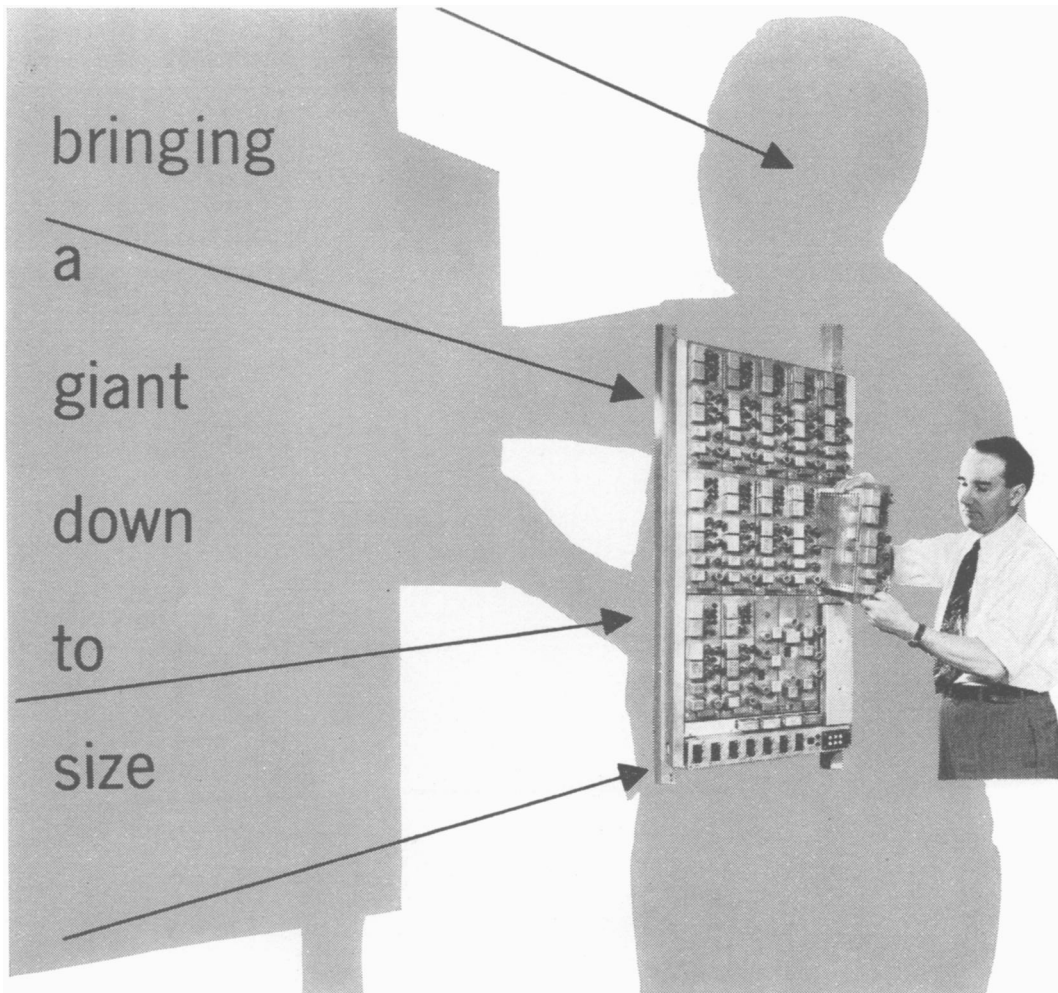
Swamp Jumper

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New type N Repeater installation. Engineer shows ease of servicing—a spare unit can be plugged in with little or no interruption to service when repairs are needed.

“CARRIER SYSTEM” telephony is economical, because many voices use the same pair of wires. But the extra equipment needed once limited it to the longer distances.

Now Bell Laboratories have developed new short-haul carrier, economical down to 25 miles, sending 12 conversations on two pairs of wires in a cable.

Keys to the new system are new circuits, miniature tubes, pocket-size wave filters and Permalloy “wedding ring” transformer cores that will barely slip over a man’s finger. New

manufacturing processes were developed in co-operation with the Western Electric Company. Components are pressed into a plastic mounting strip with heat, a score at a time, instead of being mounted separately.

With this new carrier system more service can be provided without laying more cables. Tons of copper and lead can now be conserved for other uses. It’s another example of how science takes a practical turn at Bell Telephone Laboratories, to improve service and to keep its cost down.

BELL TELEPHONE LABORATORIES

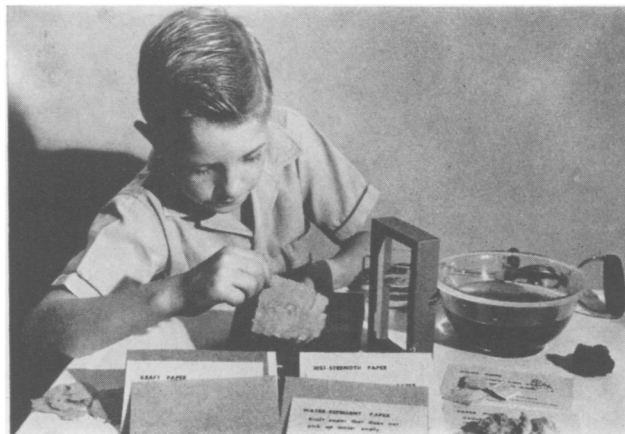
WORKING CONTINUALLY TO KEEP YOUR TELEPHONE SERVICE ONE OF TODAY’S GREATEST VALUES



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 ENHANCERS . . . SLIDE RULE
 . . . SEA SHELLS . . . WETTER
 WATER . . . BASIC CHEMICALS
 . . . COLOR VISION . . .



MAN TAKES COAL, AIR AND WATER—AND MAKES CLOTH . . . MAKES SOAPLESS SOAP
 . . . MAKES PLASTICS TO REPLACE METAL, WOOD AND FIBER . . . MAKES DISAPPEARING THREAD

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