

automobile accidents increased 18% from 1930 to 1939," the psychologist pointed out. "For the same period deaths during the daytime decreased 20%. In 1939, and for several years immediately preceding, about 60% of deaths resulting from motor vehicle accidents occurred at night."

A simple apparatus developed by Dr. Brown and now used by the State Department of Motor Vehicles, tests the extent of glare blindness in individuals and shows how quickly they recover normal night vision after lights pass.

Tests of 150 University students, conducted by Dr. Brown and his assistants, H. P. Torkelson and L. B. Fisk, psychology students, showed that the average recovery time after glare blindness was 25.2 seconds, with a speed record of 5 seconds by one student and a prolonged blindness of 70 seconds by another. Men average a normal vision recovery time 10 seconds less than women.

This record does not necessarily mean a normally slower reaction in girls but may have been the result of a lower vitamin A consumption in the women's diet, since lack of vitamin A is known to be responsible for night blindness.

Students taking the test who reported difficulty in night driving were found to be slow in glare blindness recovery.

Science News Letter, October 4, 1941

PSYCHOLOGY

Students Taught to Control Skin's Electric Resistance

YOU can be taught to control such an apparently unconscious and involuntary thing as the electric resistance of your skin, Dr. R. H. Henneman, psychologist of the College of William and Mary, has found.

Emotion may change your skin resistance just as it does the rate of your heart beat or the dilation of your eye pupils. But this change is ordinarily beyond your control and would betray you if you submitted to the so-called lie detector.

Dr. Henneman has "conditioned" eight persons so that they can voluntarily change their own skin resistance by silently saying the signal "humdum" to themselves, he told the American Psychological Association. After first thinking of this word at the same time they received the real emotion stirring signal of an electric shock, they could later produce the skin resistance change merely by giving themselves the silent word signal.

Science News Letter, October 4, 1941

New Machines And Gadgets

Novel Things for Better Living

Oriental hog bristles, used for the finer brushes, having become scarce, nylon bristles have been substituted for many uses. A recent example is a rotary brush for pasting wrappers on packages. They are said to last nearly twice as long as natural bristles. They do not fray or split, retain their stiffness in hot water, and dry very quickly. Another advantage is that they can be accurately made of a specified diameter, and all of the same diameter throughout, an important point to which the Oriental hog pays no attention.

A combined tie clip and nail file is the subject of three patented designs. The nail file composes the part that enters the enclosing clasp. In one design the combination when closed is made to look like a miniature golf bag with the tip of a golf club sticking out. In another the combination is made to look like a miniature gun in its case with the butt of the gun protruding. The third is a tiny swordfish, the tail of which forms the handle of the nail file.

Your trigger finger will always be available for use even though you wear thick gloves if you make use of a glove with a slit along the forefinger. A mitten with this convenient provision was invented by the Duchess of Windsor, who realized that a man in battle would find it extremely awkward and also chilly to have to remove the entire mitten whenever he had to use his forefinger. Of course, he might not always need it for pulling a trigger. There are other uses of a forefinger. An improvement on this device has recently been granted a patent. It consists of a tiny slide fastener, with which the opening may be closed, and the forefinger may lie snug and warm until its services are again required.

Dry ice is used in a novel method of testing sealed containers for leakage. Pellets of the dry ice are put into the containers which are then sealed and immersed in water. Dry ice is frozen carbon dioxide, the gas that causes the soda pop to fizz. In the warm surroundings the dry ice evaporates into the original gas, and any leakage will be disclosed by bubbles rising in the water.

This oxy-acetylene torch is cutting a 45-degree bevel on a ½-inch steel plate at the rate of 16 inches per minute. Cutting a bevel is more difficult than vertical cutting. More heat is required because some of the heat bounces off and does not penetrate to the same extent as when the flames strike the

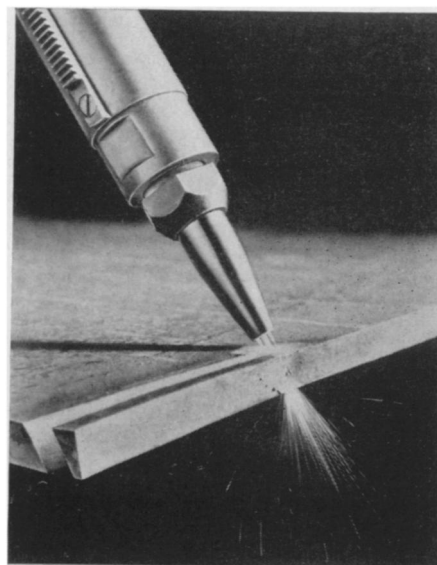


plate at right angles. The torch must be moved very uniformly, for otherwise ridges will be formed. Too much heat and too little heat produce other defects.

Tonsils are made plainly visible by the use of a new tongue depressor by which light is "piped cold" from an outside source to the throat while the patient says "Ah." This conveyance of the light is made possible by the wonderfully clear methacrylate resin. The depressor is simply a strip of the plastic 3½ inches long, ⅝ inch wide, and ⅛ inch thick. It serves both to depress the tongue and to convey the light. The latter is supplied by a cylindrical flashlight battery which serves also as a handle. The light is conveyed from the bulb to the mouth through the substance of the plastic by means of internal reflection. Very little leaks out the sides, so that nearly all comes out at the farther end. This method of piping light, much used by physicians and surgeons, is now being applied in industry to examine inaccessible parts of machinery.

If you want more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N St. N. W., Washington, D. C., and ask for Gadget Bulletin 73.

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● RADIO

Thursday, October 9, 3:45 p.m., EST

On "Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Dr. C. I. Post, of the Vitamin Division of the National Oil Products Company, will discuss the aid given by vitamins in national defense.

Listen in each Thursday.

Monday, October 13, 9:30 p.m., EST

Science Clubs of America program over WRUL, Boston, on 6.04 and 11.73 megacycles.

One in a series of regular periods over this short wave station to serve science clubs, particularly in high schools, throughout the Americas. Have your science group listen in at this time.