

• New Machines and Gadgets •

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⚙️ **LIGHT ATTACHMENT** for telephones, recently patented, illuminates the dial on the ordinary desk-type instrument. It has a clamp to embrace the base portion above the recess, and holds a small electric bulb under a reflector over the dial.

Science News Letter, July 10, 1948

⚙️ **TABS FOR TEMPORARY** use in marking library cards are half-inch circular pieces, with tiny rectangular projections to extend above the cards when attached. Each disk has an adhesive on one side which, without moistening, holds the tab in place. Tabs stay on in the files and yet can be removed when desired by simply peeling off.

Science News Letter, July 10, 1948

⚙️ **MOTO-SANDER**, designed for use in the home and to operate on the ordinary household current, weighs 2.5 pounds, has a rubber-cushioned sanding pad 2.25 by 5.5 inches in size, and delivers 7,200 strokes a minute. It can finish tight corners in furniture and can be used for wax polishing.

Science News Letter, July 10, 1948

⚙️ **TINY HEARING AID** has a receiver so small that it can be recessed in the ear-mold and worn inside the ear opening. It uses a very small battery, and a printed



electrical circuit on a plastic wafer about the size of a card of paper matches, as shown in the picture.

Science News Letter, July 10, 1948

⚙️ **ELEVATOR LADDER**, adjustable in length and operated by electric or gasoline power, will carry 500-pound loads to a

maximum height of 40 feet. It has two aluminum ladder-like tracks that hold the four wheels of a loading platform. Upper ends of the tracks are curved over so that the load is delivered to the floor.

Science News Letter, July 10, 1948

⚙️ **RAYON CLOTHESLINE** coated with vinylite plastic is waterproof and easy to clean. It is claimed to have unusual strength and a very low stretch rate, and also to be easier to tie than most lines.

Science News Letter, July 10, 1948

⚙️ **RADIO TRANSMITTER-RECEIVER** for light planes weighs only nine pounds but provides tower communications, four course ranges, marker beams, standard broadcast frequencies, loop direction finding, six VHF transmitting channels and a cabin intercommunication system. A single switch shifts from one service to another.

Science News Letter, July 10, 1948

⚙️ **ELECTRIC KNIFE SHARPENER**, suitable for home or restaurant use, has an abrasive sharpening wheel, directly driven by a motor, and clips to hold the blade against guide plates which direct the edge of the knife against the abrasive wheel at the proper angle. The user draws the blade through the clips.

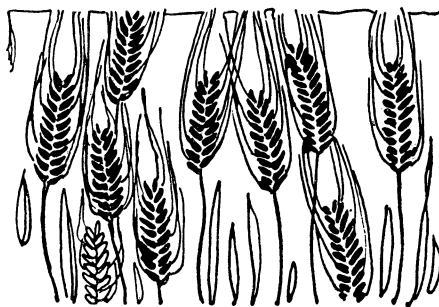
Science News Letter, July 10, 1948

• Nature Ramblings by Frank Thone •

► THE WORLD'S first farmers cultivated the rich, easily-worked, high-yielding soils on the banks of rivers—the Nile, the Tigris-Euphrates, the Indus, the Yangtze. Their fields were flat, so that straight furrows were possible and eventually came to be considered the mark of agricultural skill and virtue. Erosion on the flatlands was no problem, so the advantages of clean cultivation could be exploited without offsetting loss of topsoil—which wouldn't have counted much in those deep alluvial lands, anyway. Main crops were the same species which the farmers' pre-agricultural ancestors had gathered as wild grains—barley and wheat towards the west, rice in the east.

So long as the world's civilized population was small and the river plains sufficed to keep it fed, no great trouble came. To be sure, town fought town in Mesopotamia over water rights and field boundaries, and the long, narrow ribbon that was Egypt sometimes broke into two or more pieces that went to war with each other. But these were fights of men against men, not attacks of men against the land itself.

Force-of-Habit Farming



When the earth's greatly increased population made it necessary to clear upland forests and plow sloping lands, the foundations of our present worries were laid. Topsoil is much thinner on the hills, yet erosion is much faster, so that the "hastening ills" to which the land is prey come on at a cumulative rate. The evil is further accelerated when farmers defiantly plow

straight furrows up and down hill, inviting runoff water to cut runnels that finally coalesce into gullies of disaster.

Thus far, our only remedy has been to attempt a conversion of hillsides into more or less reasonable facsimiles of river-banks by contour plowing and terracing. On the limited flatlands thus created we keep on growing the same crops. Indeed, we pay the homage of high admiration to the Malays of southeastern Asia and the adjacent islands, who have transformed whole mountainsides into vast stairways of seasonal swamps in which they can grow rice.

Though we get a great deal of our food from hillside fields, we keep on planting the same riverside crops our prehistoric forebears first cultivated, perhaps as much as 10,000 years ago. It would seem more rational to try to find some high-yielding food plants that could be grown on sloping land without baring it to erosion by clean cultivation. That doesn't seem to be attracting much research effort as yet.

Science News Letter, July 10, 1948