

INVENTION

Several Hundred New Products Are Now Ready For Market

Survey Made by General Motors for World's Fair Exhibit Dedication Reveals What You Can Now Buy

OVER a hundred leading corporations of America through their researches have several hundred new machines, products and materials about to come into commercial use, it is shown by a survey of "new horizons of industry" made by General Motors Corporation as a part of the dedicatory program of its World's Fair exhibit building.

New power plants for railroads, a new one-man harvester that handles everything from beans to bird seed, new silk-like and wool-like fibers made synthetically from coal and milk, unshatterable

eyeglasses made from plastic, new kinds of meats, novel electric lamps that are more efficient and colder, new chemicals to combat disease, better gasolines, edible fats from petroleum, low-cost roads, blow-out safe tires, new building materials from wood, new steels, faster photographic films—these are a few of the new industrial achievements made public when Alfred P. Sloan, Jr., General Motors' Chairman, asked fellow corporation heads: "What's new?"

Nearly 500 corporation executives and industrial leaders were Mr. Sloan's dinner guests at a preview of the elaborate "Highways to New Horizons" World's Fair building. A special dramatic performance and motion picture urged these guests to speed industry by developing new ideas and products through scientific research. Mr. Sloan and Dr. Charles F. Kettering, head of General Motors research activities, key-noted the value of more research in American industry.

Highlights in the industries-research survey include:

A new group of chemicals, the nitro-paraffins, made from natural gas, by the Commercial Solvents Corporation.

Synthesis of glycerine from propy-

lene, obtainable from oil, and the making of edible fats from oil and coal were reported by Shell Oil Company.

The one-man harvester that costs less than an automobile, capable of cutting, threshing, separating, cleaning and binning more than a hundred varieties of grains, beans and seeds, at a labor-cost of one man-hour per acre, is an Allis-Chalmers Manufacturing Company product.

A tractor with all-weather cab, radio, heater, and later to be air-conditioned, is a Minneapolis Moline Power Implement Company product.

A Monsanto Chemical Company development of phosphates permits the farmer to make hay while it rains.

Fiber containers for fluid milk is an American Can Company development.

A new translucent glazing product, spun glass between two pieces of flat glass, is going into production by Libbey-Owens-Ford Glass Company.

Pentothal, a synthetic thiobarbiturate used intravenously to produce anesthesia, and vitamin K to prevent and stop bleeding are new Abbott Laboratories developments.

A device for home use that precipitates dust from the air is a Westinghouse Electric and Manufacturing Company device.

Celotex Corporation reports a new covering for flat roofs that will transform them into play and recreation spaces at little cost.

Lead added in small quantities to both carbon and alloy steels by Inland Steel Company allows machining 30 to 50 per cent. faster.

Die casting of the light metal, magnesium, is reported by Doehler Die Casting Company.

A water-white resin, first plastic suitable for optical use, produced by Norton Company, is nearly unbreakable and will be used by eye-glassed athletes and workers in hazardous industries.

Synthetic bonds for plywood provid-

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WILLIAM PATON

Shell

Wyoming

ed by Bakelite Corporation will help construct homes, airplanes, furniture, boats and automobiles.

Diesel locomotives by General Motors Corporation and high powered steam turbine electric locomotives by General Electric Company will contribute to rail progress.

Roads for light traffic made by mixing cement with natural roadway soil right on the highway are developed by Portland Cement Association.

Rubber is taking on new forms for widespread use. Tough, thin, transparent, waterproof sheets of rubber are being made by B. F. Goodrich Rubber Company for use in protecting everything from clothes to food, while United States Rubber Company has a rubber sheet with many pores, useful in filtration and storage battery manufacture.

There is also a cellular hard rubber, as light as $4\frac{1}{4}$ pounds per cubic foot, useful in insulation against heat, and a new sponge rubber made from latex that will compete with metal springs, hair cushions, and mattresses.

Rubber tires are made more non-skid and blow-out proof.

Photographic film quadrupling the fastest speed of yesterday is reported by Agfa Ansco Corporation, while Eastman Kodak Company hails the coming of color to everyday photography.

A new low-cost plastic is about to be manufactured from wood by Masonite Corporation, while pentachlorophenol for wood preserving treatment produced by Monsanto Chemical Company will make wood a more permanent building material.

Science News Letter, April 29, 1939

Correction

IN THE Macmillan Company's advertisement of new scientific books on page 253 of the SCIENCE NEWS LETTER for April 22 the price of "The Races of Europe" by Carleton S. Coon was erroneously given as \$5.75. The correct price of this book is \$7.00.

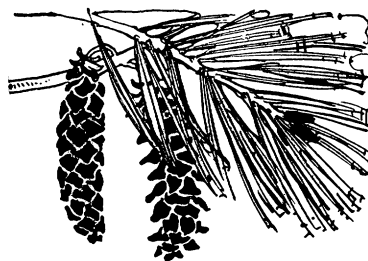
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Watch Parent Trees

FUTURE forests of the nation depend largely upon what we are doing now, especially in the selection of the trees that are to be their parents, Leon S. Minckler of the Appalachian Forest Experiment Station points out. (*Journal of Forestry*, April)

Application of the science of genetics to trees has lagged far behind the uses of genetics in other fields, he declares. This is only natural, perhaps, because a generation in trees is almost as long as it is in the human race, so that geneticists have found annual plants, like beans and wheat, more to their liking. And foresters have had so many other, more pressing problems that they have let tree-breeding problems wait.

Some of the things now being done in the reestablishment of our forests are rather doubtful, from the genetic point of view. Seed from lowland trees is used for planting upland areas, and some seed importations are made from as far away as Italy. Better practice, Mr. Minckler urges, would be to study local genetic strains and varieties and use the most successful of these, since they have already demonstrated their fitness under local conditions.

Relatively little of American reforestation is done by planting seeds or setting out nursery seedlings. Much more usual is the practice of leaving seed trees standing when a piece of land is logged off.

The selection of these seed trees would therefore seem to be of supreme importance. Yet too often the worst instead of the best trees are left, because lumber interests hate to "waste" a tree that will make profitable logs. Using cripples and runts for tree breeding is just as bad forestry as sending the best young men to war to be killed and leaving runts

and defectives as fathers of the next generation is bad eugenics.

However, even the abandonment of such bad seed-tree selection is not enough, Mr. Minckler emphasizes. We must not only avoid poor seed trees. We must intelligently select those that show the best qualities, and that give promise of being able to transmit those qualities through their seed to the next tree generation.

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In Illinois, the former will be at 10:21 p. h., C.S.T., and the latter at 11:37 p. m., C.S.T., while, for an observer in Washington, D. C., the times will be 11:52 p. m. and 12:59 a. m., E.S.T. The times are different for every location, but these given will help one to tell them approximately.

Celestial Time Table for May

Monday, May 1, 4:00 a. m., Mercury farthest west of sun; evening, Spica occulted by moon. **Tuesday, May 2**, 10:59 p. m., Algol at minimum. **Wednesday, May 3**, 10:15 a. m., full moon. **Friday, May 5**, 7:48 p. m., Algol at minimum. **Tuesday, May 9**, 5:00 a. m. moon passes Mars. **Wednesday, May 10**, 12:00 p. m., moon farthest from earth—251,200 miles away. **Thursday, May 11**, 5:40 a. m., moon at last quarter. **Sunday, May 14**, 6:03 p. m., moon passes Jupiter. **Tuesday, May 16**, 4:16 p. m., moon passes Venus. **Thursday, May 18**, 11:25 p. m., new moon. **Tuesday, May 23**, 12:42 a. m., Algol at minimum; 7:00 a. m., moon nearest earth—228,800 miles away. **Thursday, May 25**, 6:20 p. m., moon at first quarter; 9:31 p. m., Algol at minimum. **Sunday, May 28**, 6:20 p. m., Algol at minimum.

Science News Letter, April 29, 1939



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