

stricting the exhibits to manufacturers' exhibits only.

The annual fairs have for the most part become permanent. The same buildings and sites are used from year to year. The fairs themselves are free of admission, with the income derived from the exhibitors who pay for space on a rental basis. Fees are high, in some cases, costing as much as \$50,000 for setting up a national pavilion. To get space at a fair, it is not uncommon for a manufacturer to have to apply two years in advance.

As an example of the proportions international trade fairs have assumed, during two weeks in April, from the 12th to the 27th, Milan, Italy, will be conducting its 33rd annual International Samples Fair. Last year, 3,585 exhibitors, representing 50 nations, displayed more than 900,000 samples. The display area given to the fair was 490,000 square yards, ranging along a frontage of 35 miles. More than 4,000,000 persons from 109 countries visited the Milan Fair.

As expressed by the Italian fair officials, "the great merit of the Milan Fair today is that it provides a commercial center for East and West, exercising a strongly stimulating effect on trade and a stage for launching every kind of novelty in the fields of discovery and production. It constitutes a gigantic window in which all countries, whatever their economic structure or political basis, may present the products of their labors, their skills and their versatility."

Not all the trade fairs are as large or as unlimited as the Milan samples fair. Some are specific in the goods allowed to be displayed, such as the Gastronomical Fair at Dijon in France, the German Toy Fair at Nurnberg, the International Sugar Exhibition at Amsterdam or the International Nautical Exhibition at Paris.

But regardless of their size or behind the scenes political grappling, the fairs enable man to display the fruits of his invention to the rest of the world, and "meet me in St. Louis, Louie, meet me at the fair" is now being sung from Leipzig behind the Iron Curtain to Sao Paulo south of the border in as many languages as trade fair countries.

Science News Letter, March 19, 1955

PHYSIOLOGY

Woman's Hand Has Seven Fingers But No Thumb

➤ WHEN POLICE in Houston, Tex., were fingerprinting a Negro woman after her arrest, they found that her left hand has no thumb. It has a normal little finger, ring finger and middle finger. The index finger is enlarged and has a double nail.

Where the thumb normally is placed, this woman has three extra fingers.

From the woman's left hand, police obtained a total of seven fingerprints.

A photograph of the unusual hand appears in the Finger Print and Identification Magazine.

Science News Letter, March 19, 1955

GEOLOGY

Volcanoes Made Diamonds

➤ ALTHOUGH VOLCANOES are usually thought of as highly destructive, they also have some good points.

Much rich dirt, for instance, is volcano made. And another precious product of volcanoes is diamonds. They are found in the necks of old volcanoes, the pipes through which lava once surged.

Other stones of less value and beauty are also found at old volcano sites. Pumice, the fine soft powder that dentists use for cleaning teeth, is one.

And the Hawaiian islands would not exist if volcanic eruptions had not built them.

Much of our knowledge of first century Roman society is based on discoveries made in excavations on the site of Herculaneum and Pompeii, buried by Vesuvian eruption in 79 A.D.

During the past 400 years, some 500 volcanoes have erupted.

Although they have killed about 190,000 people, their violence has also been of benefit not only in providing some of the world's richest soils but in giving rich deposits of sulfur and certain metals such as lead and zinc.

The large-scale use of volcanic power may some day make volcanoes of even more constructive value. The energy available from the gas vents and hot spring waters of volcanic regions is extremely high.

Since ancient times, man has tried to harness this energy. Some success has been achieved where fumaroles and boiling springs have been tapped, but the greatest accomplishment is near Lardarello in Tuscany, Italy, where engineers have hitched their turbines to volcanic steam.

The Italian "Valley of Hell" is no small project. It supplies 20,000,000 kilowatt hours per year of electrical energy to a land lacking both coal and petroleum.

The heat given off in volcanic eruptions comes from an extremely hot shell of glassy or crystalline material located some tens of miles below the surface. This substance becomes liquefied if the pressure on it is reduced or the temperature rises. Bending or cracking of the rocks lying above may reduce the pressure, radioactive heating may increase the temperature.

In either case, the liquefied material forms a fluid mass, called magma, that is lighter than the overlying rocks and tends to rise at an opening. Magma is called lava when it reaches the earth's surface.

Science News Letter, March 19, 1955

VETERINARY MEDICINE

Too Much Fat in Food Stops Puppy's Growth

➤ TOO MUCH fat in the food your puppy eats may prevent normal growth, University of Wisconsin tests have indicated.

Profs. J. A. Ontko, Carl Gessert and Paul Phillips, university biochemists, found that dogs like the flavor of fat, and that it adds luster to the dog's coat. But puppies given a ration containing as much as 15% fat do not grow well.

The scientists explained that a high fat content ration contains so many calories that puppies stop eating before they have consumed the normal amount of food.

Science News Letter, March 19, 1955

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