



Iris

➤ BOTH those who like to walk out to meet the Spring and those who are content to watch it blossom forth in the windows of the local florist keep an eye peeled for members of the iris family.

It is unlikely that either will be disappointed for it is a numerous and popular clan. There are about 800 species in the iris family, known technically as the iridaceae. One genus within the family is the iris itself. Other important genera are the crocus and the gladiolus.

Iris come in bright, assertive colors which is probably why the name "iris," Greek for rainbow, was applied to them. Irises are widely distributed throughout the north temperate zone. Many species have been imported and they have been extensively hybridized to develop favored horticultural types. The best known native iris is the blue flag which is generally found growing in moist or marshy terrain.

The fleur de lis, the heraldic device associated with the French royal coat of arms and which is frequently seen in pins and other jewelry designs, is thought to be a conventionalization of the white iris. However its claim is not undisputed, the white lily being another contender for the honor.

Whether the iris was the inspiration or not, in any case the fleur de lis is a very ancient design which appears in Indian, Egyptian, and Etruscan decoration. Some

scholars think it has nothing to do with the iris or any other flower, being merely a design based on the shape of certain weapons, notably arrow or spear heads.

The iris flower with its large leafy petals curving upward and drooping gracefully outward and down is remarkably designed. It is a piece of ingenious botanical engineering organized so that a honey-sucking bee will pollinate any flower but the one from which it picked up the pollen.

The bee comes in for its landing on the broad inviting surface of the outer petal. As the bee (or other insect) crawls in to tap the nectar, it brushes the stigma which is conveniently set for this purpose. Thus any pollen from flowers previously visited will brush off on the stigma, resulting in pollination.

Continuing on its way to the honey, the bee brushes the anther, picking up more pollen. When it is ready to leave, the bee must back out the way it came, but this time it touches the non-receptive lower surface of the stigma. In this way the flower does not pollinate itself.

Science News Letter, April 29, 1950

## PHYSICS

### Geiger Counters Will Help Find New Oil Pools

➤ GEIGER and other radiation counters may soon be standard equipment for searching out new pools of oil.

Possibility of the use of radiation detectors in hunting oil was discussed at the meeting of the American Physical Society, Oak Ridge, Tenn. Drs. Clark Goodman, Charles W. Tittle and Henry Faul developed this application while working at the Massachusetts Institute of Technology.

They found that the penetration of solid materials by neutrons and gamma rays gave an index of the structure and composition of the surrounding cased drill holes. Counters can be used to detect the radiation from formations near these holes.

They also found that when a portable neutron source was lowered into well casings, the neutrons caused gamma rays to be emitted from the surroundings. These rays can likewise be measured to indicate the structure of surrounding formations.

When measurements of the amount of radiation are made at the same time at several points along the axis of a drill hole near a porous formation, they can be used to tell whether the formation contains oil or water, either salt or fresh.

These measurements can also indicate the efficiency of other techniques now used to locate oil reservoirs. This use of radiation detectors will increase our knowledge of conditions under the earth's surface, they state.

Science News Letter, April 29, 1950

## MINING

### Mineral Stockpiling Might Cause Later Mining Slump

➤ STOCKPILING domestic metals under the present postwar program may result in a serious decline in the mining industry at a later date, the American Zinc Institute was told by Dr. James Boyd, director of the U. S. Bureau of Mines.

"It is well to remember that stockpile procurement must come from productive capacity in excess of current industrial requirements," he said. "Consequently the termination of stockpile acquisition is bound to leave idle productive capacity, unless it can be timed to bridge the gap between past peaks and growing commercial demand.

"It is unlikely that such a favorable coincidence will occur," he continued. "Consequently I feel that the mining industry must be prepared for a period of retrenchment when stockpiling ceases."

The stockpile must provide an ample available supply of strategic materials for national security, and it is evident that an effective stockpile must be well balanced at all times, he stated. It is undesirable that there be an excess supply of one metal to the detriment of others.

National security as afforded by stockpiles is not a matter that can be reduced to a secondary position, he emphasized. On the other hand, an active and producing domestic mineral industry is a source of national strength, and has been so recognized by the stockpiling authorities.

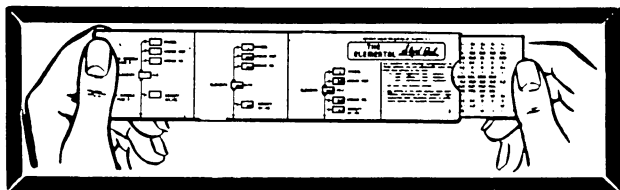
Perhaps there is a silver lining to the cloud which at the present moment is enveloping the non-ferrous mining industry, Dr. Boyd stated.

"We must assume that through our help, and their own efforts, the European economy will grow. I am convinced that the time will come when metals produced abroad will be consumed largely by the countries involved.

"It will mean the loss of certain foreign markets to us, but on the other hand it should react to our domestic advantage in that there would be less foreign metal and mineral available for marketing within the United States. Increased demand for our industrial products should increase the domestic demand for minerals."

Science News Letter, April 29, 1950

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