

however, is the largest diamond ever discovered in the United States, one which weighed 40.22 carats.

Some American diamonds are of gem quality. Most of them, however, are industrial stones.

*Science News Letter, May 20, 1944*

## MINERALOGY

## Fluorescence Shows Percentage of Molybdenum

► GOVERNMENT-dedicated patent is No. 2,346,661, obtained by Ralph S. Cannon, Jr., of Falls Church, Va., and an American-born citizen of Japanese ancestry, Kiguma J. Murata of Washington, D. C., both in the employ of the U. S. Geological Survey. They have discovered that the percentage of the war-vital alloy metal, molybdenum, in certain types of ore can be accurately estimated by means of the fluorescent glow given off when the ore is irradiated with invisible ultraviolet light. They have worked out a table of colors that correspond to the percentages of molybdenum present.

*Science News Letter, May 20, 1944*



### Flowers for the Bride

► THE BRIDE wears a wreath and carries flowers, not only where our Occidental customs and culture prevail, but in lands and among peoples as alien in their ways as the Orient and the South Sea Islands. Where life is such a perennial struggle for bare subsistence, scarcely above the threshold of actual want, that the people never have a chance to develop much sentiment or esthetic appreciation, the bride may get no flowers. Just about everywhere else on earth she receives her floral dues.

Reasons for this custom (if one needs bother to find reasons) usually grope more or less vaguely after an assumed primitive "fertility cult"—that because flowers precede fruit, crowning the bride with them was expected to aid, in some mystic or magic way, to crown the marriage with the blessing of children.

Traditional use of a wreath of orange blossoms, even in lands where orange trees do not grow and wax ones have to be substituted, would seem to lend some support to this idea. Just how this custom got started might make an interesting subject for a bit of ethnological and historical research, for the whole citrus tribe is alien to our West, and oranges and their kin came to the Mediterranean world after a very long trek from the old citrus homeland in southeastern Asia, presumably via India and Persia. Perhaps the very fact that these were exotic fruits may have lent them added glamor—although so far as that goes the orange flower could win its way on its own merits of beauty and perfume, not to mention the golden glory of the fruit that follows.

But when we look at the bride's

bouquet, these ethnological speculations become less plausible. For of all the late spring and early summer flowers at her choice, she is likeliest to carry either roses or lilies. These are flowers native to the Mediterranean lands whence much of our basic culture stems. Undoubtedly brides carried them, wore garlands of them, long before the first orange flowers found their way west. And neither roses nor lilies result in edible fruit. There seems to be no reason for having them at the wedding, except that they are beautiful and fragrant. Which, after all, is reason enough.

*Science News Letter, May 20, 1944*

## CHEMISTRY

## Possible Drug From Peel Of Citrus Fruits Patented

► HESPERIDIN, a compound occurring in the white lining of citrus fruit peel, has shown some promise of usefulness as a material for the production of drugs for reducing blood pressure, and also for offsetting the toxic effects of one of the standard agents for the treatment of syphilis. Although these uses are still in the experimental stage, it has seemed worthwhile to Ralph H. Higby of Ontario, Calif., to take out patent 2,348,215 on a process for its manufacture by chemical extraction from crushed citrus fruits.

*Science News Letter, May 20, 1944*

## METALLURGY

## High-Silicon Cast Iron Thermal Expansion Tested

► THE LINEAR thermal expansion of two high-silicon cast irons has recently been measured by the National Bureau of Standards. One contained approximately 14% silicon and 3% molybdenum; the other was without appreciable molybdenum. The difference in expansion rates between the two was found to be slight.

These high-silicon metals are unusually resistant to many corrosive chemicals such as hot sulfuric acid, copper sulfate solutions and tin tetrachloride. Accurate information of the thermal expansion of a metal or alloy is essential for its efficient use.

Both those tested were found to have somewhat higher expansion coefficients than electrolytic iron for temperature ranges from 68 to 572 degrees Fahrenheit, and appreciably higher coefficients for higher temperatures.

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