

VETERINARY MEDICINE

X-rays Promise Healing Of Race Horse Ills

► X-RAY TREATMENT, used experimentally, is giving promising results in several diseases of cattle and race horses at the University of California School of Veterinary Medicine at Davis.

Cancer of the eye, not uncommon among white-faced cattle, apparently has responded to large doses of X-rays. The tumorous growth has not recurred in the two animals treated with the X-rays last spring.

The X-ray treatment has also been used with satisfactory results in early cases of tendonitis and ring bone in race horses. These disease conditions, usually caused by strains, injuries, or unsoundness, make animals lame and unfit for use on the turf.

All the treatments so far have been on an experimental basis, the University of California scientists declare. It is entirely too early to make recommendations of this treatment for these specific diseases.

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INVENTION

Dual Purpose Machine Washes Clothes and Dishes

► A DUAL PURPOSE machine for the home kitchen which is easily converted from a clothes-washer to a dish-washer brought patent 2,571,438 to Andrew H. Gerhardt, Skokie, and Arthur P. Schultz, Hinsdale, Ill., with rights assigned to the Thor Corporation of Chicago. Separate receptacles are provided for clothes washing and for dish washing but they both are operated by the upright shaft that oscillates in the center of the machine. They are interchangeable.

When used as a clothes-washer, articles to be cleaned are immersed and agitated in a deep body of washing liquid as in ordinary machines. When washing dishes, a different mode of operation is employed. The dishes are subjected to the blast of high velocity jets or streams of washing liquid projected from and drained back to a reservoir.

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HEAVY LIQUIDS

RANGE: 1.2 to 7.5 SPECIFIC GRAVITY

For the Determination of Specific Gravity
of
Minerals—Gems—and other substances.

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Winterberry

► CHRISTMAS IS already occupying a considerable place in the thoughts of children, and therefore, of necessity, in the activities of those who cater to the Christmas trade.

Even now the gatherers of holly and other Christmas greens are beginning to get their wares together, for in many cases these decorations must be shipped hundreds of miles, which takes a lot of time. Holly grows wild throughout the South, and along the Atlantic seaboard, except for the northern New England states. It can be cultivated inland.

We have become so used to thinking of holly as a mild-climate plant that it surprises us a little to learn of a native

TECHNOLOGY

Burning Unmined Coal

► FOUR YEARS of experimental work gives definite proof that unmined coal can be burned underground in its natural seams and that the gases obtained can be used successfully to operate a gas turbine engine or as fuel to generate steam. The gases may also be used to make synthetic gasoline and fuel oils and to obtain chemicals.

Initial work in this experimental undertaking at Gorgas, Ala. was begun in the spring of 1947. The entire project has been a joint undertaking of the U. S. Bureau of Mines and the Alabama Power Company. Coal seams of the power company were used. The early work was to determine if the coal could be burned in place without mining, and how the burning could best be controlled.

More recent work was concerned with making use of the gases obtained as well as improving burning procedures. Included was the operation of two gas turbine engines.

American holly that thrives perfectly well in the winter climate of the North, even in the upper Mississippi valley. We do not recognize it as a holly, because it does not have the hard, glossy, prickly leaves of our old familiar Yuletide friend, and because its softer foliage changes color and drops off in late autumn, in orthodox fall-leaf fashion.

But the winterberry is a true holly none the less, as will be recognized in a moment if one examines the round, red, glistening berries with which its slender stems are beset. Botanical name for the holly family is *Aquifoliaceae*, and it includes some 300 species, distributed mostly in Central and South America. There are many kinds found in the U.S., however, and practically all of them belong to the genus *Ilex*, or true holly.

The winterberry is also known as the black alder, and is closely related to the smooth winterberry found in the swamps from Georgia to Pennsylvania. The winterberry does not reach tree size, as the Christmas holly does—it is never more than a tall and somewhat straggling bush. In Virginia, it sometimes reaches a height of 25 feet, though its ordinary stature averages only about five or ten feet. It is found from Nova Scotia south to Florida, and westward as far as Missouri.

Like most of our other bright-berried shrubs, the winterberry has suffered considerably from the depredations of commercial collectors. Those interested in preserving the beauty of our native woodlands urge private individuals not only to refrain from taking winterberry, but also to refuse to buy it if it is offered on the market.

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During the 22 months of the second phase of the project, a total of 10,485 tons of coal, underlying an area of almost two acres, was gasified. Over a four-month period, when 65% of the heating value of the coal was realized, the energy yield was greater than could have been obtained from the coal mineable from the same area under existing mining methods, the Bureau of Mines states. The two gas turbines were successfully operated for approximately 100 hours on the combustible gases obtained.

In burning coal in natural layers underground, holes are drilled into the coal from the surface and fire started in one. Air or oxygen is forced down this hole to support combustion. The gases of combustion are forced through the coal to the other holes and up to the surface where they are captured. These gases are similar to those obtained in the well-known process of making artificial household gas from coal.

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