

SCIENCE.

IS THE FULL MOON RED-HOT?—I believe that the surface of the moon is, as it appears to be, of a dull red heat, and that this high temperature is due to the action of the sun's rays striking it directly without any intervening shield of aqueous vapour or other atmospheric matter. If the volcanic tufa, of which the moon's surface is evidently composed, resembles the corresponding material on our earth, it is one of the best absorbers of heat and the worst of conductors. This being the case, the uninterrupted glare of the sun's rays would produce its maximum possible effect on a thin film of the moon's surface; and as radiation and absorption are co-equal, this surface would rapidly cool by uninterrupted radiation while screened by the earth's shadow. In connection with this subject it must be remembered that "red-heat" is not an absolute temperature; it varies with the heated surface when viewed in the dark. This, if a piece of bright platinum on which an ink mark has been made be heated barely to redness, the ink mark shows out as though hotter than the metal. The dross on a ladle of melted metal shows a red heat, while the metal itself is dark. If a figured tile with black and white pattern be heated to redness, and seen in the dark, the black, glow is so much more vivid than the white that the pattern appears reversed. If the pattern be in glazed and unglazed surfaces, the unglazed shows a red heat at lower temperature than the glazed. A tuffaceous surface like that of the moon is specially favorable for such display of red luminosity at the lowest possible temperature. Therefore the copper colour may be brought out by a temperature of about 600 deg. The reasoning that ascribes so high a temperature to the side of the moon presented to the sun must lead to the conclusion that the dark or night side is intensely cold—that sunset on the moon is followed by such active uncompensated radiation that in a few hours after darkness the red-hot surface must cool down to a temperature below the coldest of our arctic or antarctic regions, and the copper-red heat must return in a few hours after sunrise.—Gentlemen's Magazine.

AMOUNT OF BLOOD IN LIVING BODIES.—Physiologists have tried to estimate the volume of blood in a living animal's body, but the methods used have not been very exact. An improved method recently adopted MM. Gréhaud and Quinquand is as follows:—The animal (a mammal) is made to breathe gas containing a known amount of carbonic oxide (CO). After a quarter of an hour, the volume of CO remaining is observed; and this shows how much has been fixed by the blood. On the other hand, by analysis of the blood, one ascertains the amount of CO fixed by a given volume (estimating the respiratory capacity of two samples, taken one before, the other after, the poisoning). From these data it appears that the total weight of the blood in mammalia is comprised between 1.12 and 1.13 of the weight of the body. In the normal condition there are no great variations in this relation.

A correspondent of a Detroit paper who has been loitering around on the continent, writes that he found on the side of the Alb, in Switzerland, a curious old flour mill driven by water power. The miller had half a dozen women employed carrying the grain from one floor to another, and sifting, screening, and holting by hand. One of the party with the correspondent described to the miller the elevators, conveyors, and other labour-saving machinery used in flour mills elsewhere. The miller listened patiently and shook his head. "Yes they were fine improvements, but where was the need for them? What would the working people do? The mill had run on for 200 years as we saw it, and please God would go for 200 years more in the same fashion." Switzerland has no patent law.

Don't eat anything between meals excepting fruits or a glass of hot milk if you feel faint.

THE HOUSE.

HINTS ON WASHING.—Before washing black and white, stone, slate or maroon colored cotton goods, dip them in a solution of salt and water, made by dissolving two cupfuls of salt in ten quarts of cold water, and hang them in a shady place to dry. The salt sets the colors. When dry, wash in a light suds in the usual way. Calicoes and muslins do not require a hot suds: water moderately warm is best. Never allow them to soak in the water. Wash quickly, turn the wrong side out, and dry in the shade. A little salt in the rinsing water is an improvement. Another way is to mix two cupfuls of wheat bran in cold water, making a smooth paste; then stir it into one quart of soft boiling water. Let it boil one hour, then strain into five or six quarts of soft warm water. No soap is necessary, for bran has cleansing properties of its own. If there is black in the dress, or any other color that is liable to "run," add a tablespoonful of salt. Rinse thoroughly in one water. For starch, use a little white glue-water cool and clean. Always iron on the wrong side with a moderately hot iron.

Blue, stone, slate and brown colored articles may also be made to retain their color perfectly by adding sugar of lead to the water in which they are to be washed. Dissolve one ounce of sugar of lead in a pailful of hot water; stir carefully until it is thoroughly dissolved, and let the mixture cool. When about milk-warm, put in the articles and let them remain an hour. Hang up to dry before washing. When dry, wash as directed in bran water. The sugar of lead fixes the color permanently, so that treatment with it will not need to be repeated. Use this preparation with caution; sugar of lead is poisonous.

BREAD MAKING.—Three slices of bread shown by a Lewiston flour dealer spoke for themselves. Placed side by side they shaded very abruptly into three strikingly distinct tints. One was of the hue of graham and fell into your hand like a half baked brick. Another was nearly white, and would be greeted with pleasure by a hungry man. The third was so white that snow would have to be bleached to compare with it; moreover, it possessed that spongy texture which is so gratifying to the eater and a source of so much pride to the cook. It threatened to dissolve in one's mouth, and would tempt a gorged epicure. It would not be a strain to say one could distinguish them in the dark. The flour dealer deposed that the three slices of bread were made by three women from one and the same kind of flour. The cook who produced the first slice was dissatisfied with the flour, while the woman who made the bread last mentioned said she could make good bread out of flour that didn't cost less than \$4 a barrel. It is evident that bread cooking is not one of the lost arts, but it is an art which still contains sufficient mystery to puzzle many and confound not a few of the angels who hover over our flour barrels.

Have you ever tried lemon honey? Nothing can be nicer. Three lemons, three eggs, three cups of sugar, two cups of water, small piece of butter; boil gently twenty minutes.

For raspberry vinegar to seven pints of berries add one quart of vinegar; let them stand forty-eight hours. Then strain, and to every pint of juice allow a pound of sugar; boil fifteen minutes and bottle for use. This is a pleasant drink for the sick.

JELLIED CHICKEN, OR VEAL.—Boil the meat till it falls from the bones; use just as little water as possible; when cold, chop very fine; season with pepper and salt. Then put in a mould with a layer of hard boiled eggs, either chopped or sliced. Boil the water in which the meat was cooked until it is half boiled away; add a tablespoonful of gelatine; when it is dissolved, and while still warm, pour over the meat. Use the day after it is prepared.

Don't try to lengthen your days by cutting short your night's rest; it is poor economy.

THE FARM.

In contrast with the common practice of letting dairy cows go dry four months or so every year, a recent writer says that he has a cow that has completed her fourth farrow year, and has averaged, during the past six months, a fraction over five pounds of butter per week, of first rate quality. He cites also the case of a cow in Berkshire, England, which ten years ago dropped twins, and has been giving a good mess of milk daily ever since.

When beets were first grown for sugar no more than five per cent. of sugar could be obtained from them. Now the amount yielded sometimes reaches as high as fifteen per cent. This result was reached by careful experiment, based on scientific knowledge.

TO 'LAY OFF' AN ACRE.—An acre contains 4,840 square yards. Hence a strip 5 yards wide must be 968 yards long to make an acre; if ten yards wide, it must be 484 yards long; if 20 yards wide, 242 yards long; if 40 yards wide, 121 yards long, &c. Of course the rule simply is to divide 4,840 by the number of yards in the width or length, and the quotient is the other dimension. The result may be obtained in feet by remembering that there are 43,560 square feet in an acre, or 9 times the number of square yards.

A NEW WEED known as "Long John" believed to have been brought in Western grass-seed, has appeared. It grows three feet high, has the appearance of a species of mustard, and blossoms with a small yellow flower. Cattle are extremely fond of it, eating it in preference to grass. The milk from cows feeding upon it is rendered worthless; but butter made therefrom is valueless for anything but common grease. The managers of cheese factories are watchful lest a batch of this milk shall spoil the whole make of cheese.

VARIETIES.

After Garfield had been dined at by two talking women at the White House he walked away and asked a gentleman in a corner, "Do you know what is the derivation of 'bother'?" It comes from both-ear—two people talking to you at once.—Exchange.

"Well, now, Joe," said Governor Vance, "do you believe in this election by God that you speak of?" "Deed I do, Massa Vance," said the negro seriously, with a shake of his head. "Well, do you think I am elected to be saved?" "Scasely know, Massa Vance; but I nebber heard of anyone being 'lected what wasn't a canderdate."

The Chinese custom of stopping the growth of women's feet has the following source:—In the twelfth century there reigned in China an Emperor called Tchou-Koung. He was a great tyrant, and he had a wife, Ja Kya, who was still more despotic and severe than her husband. She was beautiful, but she had crippled feet; in order to hide that defect she wrapped them in all sorts of bandages, and put on little shoes. The ladies of her court hastened to follow her example, and the strange habit has been handed down until now. Tout comme chez nous. Many of the stupid fashions of the West have had a similar origin.

The minister of a Methodist chapel in Georgia, having left his spectacles at home on one occasion, intended to announce to his congregation that the singing would be dispensed with. He arose and said, "My eyes are dim, I cannot see; and immediately the choristers commenced singing the words to the "Old Hundredth." Surprise and mortification made him almost breathless; but he made an effort to stammer out, "I meant but an apology."

This line was taken up by the congregation in the same manner, when the dominie becoming much excited, exclaimed, "Forbear, I pray; my eyes are dim. But remembrance was in vain; the singers went on, till in accents of despair, he again cried out, "I do not mean to read a hymn—a declaration so palpable that it silenced the vociferous singers."

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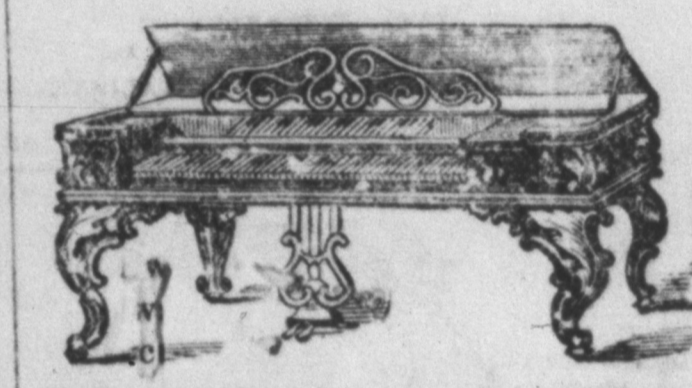
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