

Science Siftings

By 'Volt'

Alpha Centauri, a bright star of the southern hemisphere, is the nearest star to the solar system. Yet it is 275,020 times as far from the earth as the sun (says the 'Chicago News'). That is, it is 25,000,000,000,000 miles away. The light of this star requires four and one-third years to travel to the earth. Yet other stars are so much further away from the earth that the distance to Alpha Centauri is a mere yard stick with which to measure their greater distances.

The Atmosphere.

The earth's sensible atmosphere is generally supposed to extend some 10 miles in height, probably farther, but becoming at only a few miles from the surface of too great a tenuity to support life. The condition and motions of this aerial ocean play a most important part in the determination of climate, modifying by absorbing the otherwise intense heat of the sun, and when laden with clouds hindering the earth from radiating its acquired heat into space.

The Points of the Compass.

To tell the points of the compass by a watch: point the hour hand at the sun. Then south is half-way between the hour hand and the figure 12 of the dial. To measure an angle by a watch: Lay two straight-edged pieces of paper on the angle, crossing at the apex. Holding them where they overlap, lay them on the face of the watch with the apex in the centre. Read the angle by the minutes of the dial, each minute being six degrees of arc. It is easy to measure within two or three degrees in this way.

Enamelware and Appendicitis.

A discovery that is likely to prove somewhat startling to householders has been made in connection with a local surgical case (writes the Albury correspondent of the Sydney 'Daily Telegraph'). Dr. Kennedy lately had occasion to operate on a person in Albury for appendicitis, and he found that the trouble had been caused apparently by the taking into the system of a number of small pieces of enamel. The enamel was of a kind that is used extensively now for the lining of kitchen pots and pans. It is common experience that this enamel chips, and the presumption is that in the case under notice some of the pieces had passed into the patient's body with the food cooked in vessels lined in this way. The medical opinion is that the matter is of great public importance, in view of the general use of enamelware in the kitchen.

Bells Rung by Compressed Air.

The chimes of St. Patrick's Cathedral, New York City, are rung by compressed air. Nineteen bells are in the spire. The heaviest weighs 6000lb, the lightest 300lb. The keyboard of the chimes is in the sacristy. The operator presses a key corresponding to a bell in the spire. This establishes an electric connection, which opens a valve in the steeple, conducting compressed air to a piston with a clapper that strikes the bell. Electricity is the trigger and compressed air the motive power of playing the chimes.

An Accidental Discovery.

The art of etching on glass was accidentally discovered. A jeweller of Nuremberg, by some mischance, allowed a drop of aqua regia to fall upon the glass of his spectacles. He noticed that the glass became corroded and softened where the acid had touched. That was hint enough for him. He drew figures upon glass with varnish, applied corroding fluid, then cut away the glass around the drawing. When the varnish was removed the figures appeared raised upon a dark ground.

New Use for the Shark.

The shark, which is so abundant in the waters of Central America, is to be utilised in commercial products. A company has been formed which converts sharks' fins into jelly and tinned soup, makes fine machinery oil from their livers, handsome leather, equal to alligator's, from their skins, walking-sticks from their backbones, and numerous articles from their jawbones and teeth.

MOUNTAIN KING ASTHMA POWDER (Registered) gives immediate relief in cases of Chronic and Humid Asthma. Never fails. Give it a trial. All chemists and stores. 2s 6d.

The Home

By 'Maureen'

Treatment of Children.

Children who are punished or scolded for every trifling delinquency either become demoralised by fear or hardened in wrong-doing. Nervous children, in particular, become so afraid of punishment for doing wrong that they lose the power of discerning what is right and what is wrong, and naturally choose the course which they think least likely to lead to chastisement; and they will descend to any amount of deceit and story-telling to save themselves from the results of their errors.

Care of Lamp Chimneys.

Lamp chimneys crack readily in cold weather. The sudden expansion in heating is more than they can stand. To toughen them it is only necessary to boil them a long time, after putting them in cold, salted water in a kettle having a false bottom. Even these will not stand the sudden raising of the wick after lighting it, or the pressure of too tight clamps that hold it in place.

Hair-Brushes.

A good way to clean hair-brushes is with spirits of ammonia and warm water. Take a tablespoonful of ammonia to a quart of water, dip the bristles up and down in the water without wetting the back, rinse in clean warm water; shake well and dry in the air, but not in the sun. Soap and soda soften the bristles, and will turn an ivory-backed brush yellow.

To Re-enamel a Bath-tub.

Buy proper bath-tub enamel. Wash the tub thoroughly with hot, soapy water first, and rub all over with sand-paper, to make the surface smooth before using the enamel. Heat the enamel slightly by standing the tin in a bowl of hot water. This thins it, and it is easier to apply it evenly. It will need two or three coats, and each must be allowed to thoroughly dry before the next is applied.

How to Select Flour.

First look at its color. If white with yellowish or straw-colored tint it is a good sign. If very white with bluish hue or black specks, the flour is not good. Examine its adhesiveness by wetting and kneading a little on the fingers. If it works dry and elastic it is good; if soft and sticky it is poor. Throw a lump of dry flour against a dry, smooth, perpendicular surface. If it adheres in a lump the flour is good; if it falls like powder it is bad. Squeeze some of the flour in your hand, and if it retains the shape given by pressure it is a good sign. Flour that will stand all these tests can be bought without fear.

Setting Colors.

To set the color in colored cotton dresses that are to be washed, dissolve three gills of salt in four quarts of hot water, put the material in while the water is hot, and let it remain until cold. In this way the colors are rendered permanent and will not fade in washing.

Picture Frames.

Fly-marks and general griminess may be removed from gilding by dipping a small piece of cotton-wool in gin, and with it rubbing gently over the soiled parts. The cotton-wool should be squeezed before being applied to the gilding, for this must not be made really wet, and any damp on it should be dried by the fire as soon as the marks have been removed.

Polished Floors.

Polished Floors should be rubbed with a mixture of one-third raw linseed-oil and two-thirds paraffin. Use it sparingly, or the polishing afterwards with dry cloth will be a long business. A floor of this kind should always be dusted first with a slightly damp cloth and afterwards rubbed with a dry one.

The Kaiser's Rules of Life.

The German Emperor endeavors to follow the 'rules of life' laid down by his favorite physician, as follows:—'Eat fruit for breakfast. Eat fruit for lunch. Avoid pastry and hot cakes. Only take potatoes once a day. Don't drink tea or coffee. Walk four miles every day, wet or fine. Take a bath every day. Wash the face every night in warm water. Sleep eight hours every night.' The Kaiser ascribes his excellent physical condition to close adherence to this advice.

Maureen