

girls will be taught to care for their own rooms, cook, wait on table, and keep the house in order, while still having ample time for recreation.

While this will undoubtedly prove of immense benefit to the girls physically, and from a business point of view, the housewife will also feel a natural interest in the outcome of this new attempt to solve the vexed question of trained service.

In making out a menu remember that jelly counts as a relish.

The order for an elaborate course dinner as outlined in the very practical Waitress' Course at Pratt Institute, is as follows:

I. Oysters or clams with canapes or anchovy toast. Seasoning for oysters, lemon in centre of dish or passed separately.

II. Soup, thick or thin, accompanied by radishes, olives, celery or almonds.

III. Fish, boiled or fried, served with boiled potato in little balls or half-inch square cubes; shredded lettuce, cucumbers, or cubes of tomatoes, with very little French dressing.

IV. Entree, croquettes, timbales or vegetables, such as cauliflower or asparagus.

V. Vegetable alone, or may omit.

VI. Joint with potato and one vegetable: artichokes, spinach, chutney, apple (scrape some in a cup with onion, raisins, spice and bayleaf) or peppers.

VII. Punch, ice or sherbet; cheese, omelets, or cheese soufflé.

VIII. Game and salad, or poultry and salad. Larded calves' livers are often cooked, save in place of game. Cheese, crackers and sandwiches.

IX. Sweet puddings, soufflés, custards, charlottes.

X. Frozen dessert, cake, brandy peaches, wine jelly.

XI. Fruits, fresh or candied; glace fruits, bonbons.

XII. Coffee, liquors, apollinaris, vicby.

Deviled almonds are a new and decidedly spicy relish, prepared in the chafing dish. Put two level tablespoonfuls butter in chafing dish. When hot add one cupful blanched and shredded almonds, two tablespoonfuls chutney-one-half teaspoonful salt, two teaspoonfuls Worcestershire sauce, four tablespoonfuls finely mixed pickles, and one quarter teaspoon red pepper. Toss until the almonds are a golden brown, and serve with the soup or as a relish at luncheon or 5 o'clock tea.

If one is not accustomed to all the multifarious "musts" of dinner etiquette, a word from one in authority comes with healing in its wings to the doubtless soul, who would fain abide by the covenances if she were only sure of them. An answer to the written invitation that usually comes a month or two weeks in advance should be sent immediately, repeating the date and hour of the dinner, in order that mistakes may be rectified. In declining, it is courteous to state the reason. When either the husband or wife is unable to attend, the invitation should be declined for both. At very formal dinners, the ladies are expected to dress décolleté, while the gentlemen come in evening dress. Upon arriving, the gentlemen finds in the dressing room a tray holding small, addressed envelopes, and in his a card

bearing the name of the lady whom he is to take in. R. or L. indicates the place at table, reckoning from the entrance. Should he be unacquainted, he asks the hostess to present him; but if for any reason introductions are not given, guests must act as though acquainted and speak to whoever is near. In going in, the host, with lady to sit at his right, leads the way, the hostess coming last, except in official or diplomatic circles, when, with the honored guest, she would precede the others. At each cover is a card bearing the name of the occupant. After dinner the gentlemen attend the ladies to the drawing-room, then withdraw for a half-hour to the smoking room. Shortly after the re-entering of the gentlemen the guests take their leave, the guest of honor taking the initiative.

A cooling and refreshing drink for a person suffering from a feverish cold may be made by dissolving a teaspoonful of tart currant or cranberry jelly in a glass of ice water.

EMMA PADDOCK TELFORD.

SCIENTIFIC MISCELLANY.

In his tests of the Turbinia—the first vessel using the compound steam turbine—the Honorable Charles A. Parsons has experienced the not wholly unforeseen difficulty of excessive speed of the screws. The effect of this was shown by an ingenious experiment. Model screws were revolved in a bath of hot water, a revolving mirror on the screw shaft reflecting the light of an electric arc to the screw at one point only, and thus causing the shape and growth of the cavities to appear as plainly as if stationary. A cavity or blister first formed a little behind the leading edge and near the tip of the blade. As the speed of revolution increased, this cavity enlarged in all directions, until, at a speed corresponding to that of the Turbinia's propeller, it covered a sector of the screws disc of 90°. and at a little higher speed nearly the whole energy of the screw was expended in maintaining a vacuum space. The turbine ultimately used is of the three-stage compound order, each expansion having its separate motor working its own propeller shaft. The vessel—which is 100 feet long, 9 feet beam, and 44½ tons displacement—has exceeded 31 knots, the energy developed being 1576 indicated horse power, with a steam consumption of 15.86 pounds per horse power hour. The total weight of machinery, etc., is 22 tons. The results seem to be unprecedented for a vessel of the size, although it is recognized that improvement of motor and reduction of revolutions are necessary to make the system practicable.

In his early experiments with the electrified high-vacuum tubes which the X-rays have brought so conspicuously to notice, Crookes observed a singular blackening of diamonds under the molecular bombardment in the tubes. Moissan has lately investigated the black layer. It proves to be graphite, and for its production from the diamond must have required a temperature of 3600° C.

Fatty acids—doubtless of beef or mutton—have been found in the Egyptian tombs of Abydos, dating from before the first dynasty, together with a cosmetic of lead sulphide and fat.

Highly magnetic spots, apparently

having no connection with the general magnetization of the earth, are found at different places in the rocks. It has been suggested that these points may have been magnetized by lightning. This theory has been singularly confirmed by the researches of Doctor G. Folgeraiter, who has found precisely similar magnetic points and zones in the remains of ancient walls and buildings in the Roman Campagna. The fact that the magnetic spots extend over adjacent stones and even to the mortar disproves the idea that they may have existed in the stone before use for building. Cracks down the walls, moreover, are visible marks that the lightning seems to have left in some cases.

Right handedness, so long a scientific puzzle, is believed by Doctor G. V. Poore to be a result of the distribution of the weight of the viscera in the thorax, and to have had its origin with our four limbed ancestors long before they began to stand on their hind-legs for oratorical or other purposes. Much the greater weight of the viscera is on the left side. This causes the stability of the animal's body to be more upset by lifting its left paw than its right, and the right paw, therefore, is the one usually selected for independent use. A creeping child would for the same reason use the right arm for purposes independent of locomotion.

The system of accumulators designed for street-railway use by Herr Paul Ribble, of Berlin, has for its essential feature carrying-plates of celluloid inclosing the lead plates, and provided with a number of openings, the edges of which form the supports for the active material in the form of a special paste. This form of construction is claimed to ensure great durability in spite of great variations of load. A street-car battery on this system consists of 140 cells, having a total weight of about 2½ tons, and supplying an equivalent of 40 horse power for a run of twenty hours without recharging.

Spacules for protecting the eyes from sparks, flying splinters, and the like, are made by Doctor Thomalla, of Berlin, from Schering's gelatoid, an elastic transparent material, which can be hardened in amyl-acetate. If broken, the substance does not splinter, like glass. It does not condense moisture on its surface, does not become so hot as glass near a fire, and is unflammable.

The latest determination of the limits of audition, according to Lord Rayleigh, gives 24 complete vibrations a second for the lower limit and about 20,000 for the upper. Both limits, however, are ill-defined, depending largely on the vigor of the vibration and the individual. Experiments seem to show that a vibration having an amplitude of only 8-100,000,000 of a centimeter can still effect the ear, such a vibration being 100 times smaller than the smallest object visible in any possible microscope; or, stated in another way, the ear is so sensitive that it distinguishes differences of pressure 100 times less than the residual pressure of the best vacuums, which is measured in millionths or less of an atmosphere. The propagation of strong sounds is doubtless greatly hindered by atmospheric refraction. This would seem to explain why some 60 horse-power Trinity House sirens can scarcely be heard two miles away, although calculation from the law in inverse squares would seem to prove that the sound