

REPORTING BY TELEPHONE.

The method of reporting late debates in the House of Commons by telephone, lately adopted by the *London Times*, is thus described by that journal. A type-setting machine has for some time been used in the office, by which a fair workman can attain an average speed of 100 lines an hour, even when composing from manuscript which he has to read for himself; and this speed can be doubled, or nearly so, when the operator is assisted by a reader, and thus composes from dictation. Now the telephone has been brought into use in connection with this machine in the following mode. Having obtained the permission to lay down the necessary wires we formed a new connection between the House of Commons and the office, and placed one of Edison's loud speaking telephones at either end. The immediate result of this arrangement has been to bring the compositor at the machine into direct communication with the parliamentary reporter at the House and to enable the debates to be reported and printed from half to three-quarters of an hour later than had previously been possible. The notes made by the reporter can be read directly into the telephone-receiver in a room adjoining the gallery either by the reporter himself when relieved or by another person employed for the purpose, and the compositor at the machine, in the office, sits with his ears in juxtaposition with the other terminal of the instrument.

The plan which has been found the most efficacious for the purpose of shutting out distracting sounds of other kinds is to place the disc of the telephone above and behind the compositor and then to arrange two tubes, each with two trumpet-shaped extremities in such a manner that these extremities are applied at one end to the two sides of the telephone disc and at the other end to the two ears of the compositor. The compositor is also furnished with a speaking instrument, with a key for ringing a bell and with a bell which is rung from the House—a simple code of bell signals, consisting of one, two, or three strokes, sufficing for the ordinary requirements of each message. The compositor announces by the bell that he is ready, receives a sentence, strikes the bell to indicate that he understands it, sets up the type with his machine, strikes the bell again for the reader to continue his dictations, and so on until the work is carried as far as time will allow. If there is any doubt or difficulty about the words a bell signal will cause them to be repeated, or explanations can be sought and received by direct vocal communication. In this power indeed resides one of the chief advantages of the method, and one which ought to lead to greater accuracy than has ever previously been attainable. The names of people, places, etc., can be spelled out letter by letter if there is any doubt about them.

HONORS TO AN AGED CHEMIST.—The chemists of Germany are collecting money for the purpose of presenting a gold medal to Prof. Wochler on his 80th birthday, which will be July 31, 1880. Prof. Wochler is one of the most distinguished, as well as the oldest, of living chemists. Himself a pupil of old Berzelius, a contemporary of Liebig, and the loved instructor of many of our best chemists, his name is equally respected on both sides of the Atlantic. Profs. Jay and Chandler, of Columbia College, New York City, two of his former pupils, are receiving contributions from those who wish to join in this well-deserved memorial.

HIGH RAILROAD SPEED.—In a recent discussion of the question of high railroad speeds, at the Franklin Institute, Prof. Marks stated that he had made some calculations as to the maximum speed at which locomotive engines could be driven before the centrifugal force on the tires of driving wheels would become so great as to cause them to burst. Those calculations, which were approximate only, gave a limit of speed in the neighborhood of 150 miles per hour; of this, 78 miles, or more than half, has already been attained.

SWEET JARS.

Collect the rose leaves on fine sunny days, after the dew has dried off and when the flowers are fully expanded or just ready to fall. Strip the leaves from the calyx, pack them in a large glass or earthen jar in alternate layers with a third the quantity of fine salt, and sprinkle each layer with strong vinegar. Collect the leaves all through the rose season; after they are gone gather other sweet-scented blossoms and leaves, such as tuberose, heliotrope, carnations, lemon verbena, violets, rose and nutmeg geranium, lavender, rosemary, etc. Use only the petals and leaves; always make the top layer of salt, and keep the jar tightly closed except once a day, when the mass must be thoroughly mixed and turned, and fresh leaves added if you have them.

As soon as the leaves look moist, which they should do in a week after packing, put some bruised allspice and stick cinnamon in the jar. The quantity will depend on the amount of leaves you have. Three-quarters of an ounce of allspice, and a quarter of an ounce of cinnamon to every quart of fresh petals. The spice may be added once in a week or two, as occasion requires. When the last leaves have been put in let them remain for three days, stirring and turning twice a day, after which this "stock" may be transferred to the jar in which it is to be kept, and the balance of the ingredients added. Supposing that the stock consists of three quarts of fresh rose leaves, and a quart of other varieties, three ounces of allspice and one of cinnamon, it will require a mixture in the following proportions: One ounce each of cloves and stick cinnamon, two nutmegs, half an ounce of ginger root, half an ounce of anise seed, and two ounces of orris root, all coarsely powdered or bruised. Sprinkle these ingredients over each layer of the stock as it is placed in the jar, and also add orange and lemon peel, cardamom and fennel seeds (bruised), cedar chips, sage, thyme, spearmint, a tiny bit of camphor, or in fact any sweetly-scented material that may suggest itself and be convenient. An atom of musk, sachet powder, perfumed water and fragrant oils are all fine additions. Whenever the mixture becomes dry it should be moistened with scented water. Keep the jar tightly closed for a month after mixing. Then open only when the perfume is desired. The jar must be frequently shaken and stirred. Open it for 15 minutes every day and the house will be filled with a delicious perfume, like the breath of a thousand flowers.—*Clara Francis in Prairie Farmer.*

A NEW SKATING SURFACE.—An English inventor, after much study and experiment, has, quite recently, devised an entirely new skating surface, which he calls "crystal ice," and which consists of a mixture of various salts, mostly, however, sulphate of soda, which crystallize at ordinary temperatures. This preparation, which is comparatively cheap, is simply spread out, in a plastic condition, from an excess of water, upon an ordinary floor. As soon as the excess of water evaporates the substance becomes crystallized, presenting a surface much resembling ice, quite as hard, and upon which ordinary ice-skates may be used with about equal facility as upon a water-frozen surface. When "cut up" by skaters, its surface can be readily smoothed by a steaming apparatus, and the floor, when once laid, will last for years. It is obvious that such a floor must have many advantages over artificial ice and floors for roller-skating. It is said that the mixture of salts used contains about 60% of water of crystallization; hence, after all, the floor consists mostly of solidified water. The above facts are obtained from *Nature*, of June 5th, in which it is further stated that a small experimental floor has proved such a complete success that a large skating rink is to be immediately constructed upon this principle.

A "FILLER" OR POLISH FOR WOOD.

(1.) Four parts of white wax are added to 3 parts of oil of turpentine, and the whole is heated in a flask or bottle, immersed in hot water, until the wax is liquefied and almost dissolved. It is then allowed to cool, and when it begins to turn white and to harden 2 parts of strong alcohol are added, under stirring. This mixture is applied by means of a woolen cloth and thorough friction. The alcohol may be increased to 4 parts, but the friction must then be continued for a longer time.

(2.) One pint of linseed oil, together with 2½ oz. of alkanet root, are heated to boiling in a clean pot over a slow fire, and kept at a gentle boil for about two hours. When cool, the mixture is applied in a thin layer to the wood, and after the lapse of 24 hours well rubbed in.

(3.) The best polish, particularly for fine wood, is milk! After all dust and dirt have been carefully removed, good fresh milk is applied to the wood and well rubbed in with a woolen rag, until all moisture has disappeared. This must be repeated several times, and in the case of new utensils should be done once a week. Milk has this advantage that its fatty substance answers the same purpose as linseed oil, and its other constituents act as a filler while it leaves no disagreeable flavor. For some light-colored woods sublimed sulphur with boiled oil makes very good filling.

One ingredient, however, is necessary in all of the above processes, without which success will not be attained, and this ingredient is *adepts cubitalis*, vulgo "elbow-grease."

THE ABSORBING POWER OF EARTH.—Without obtaining a practical test one can hardly appreciate the absorbing power of dry earth, or the leeching effect of some kinds of soils. A writer says: "We once deepened a manure pit that had a blue clay bottom. This pit had been used for years, there was never less than a foot of water in it. After emptying we commenced to deepen it, expecting to find a rich black earth for a foot or two, but to our astonishment, the clay two inches below the bottom was not soiled, but looked as pure and blue as it did two feet deeper. But all kinds of soils are not as impenetrable to liquids as blue clay. By actual experience we have found that dust an inch thick over a dead animal will prevent the escape of bad smells. In hen-houses the effect is magical, preventing not only bad odors, but vermin as well. Even for old running sores and ulcerated wounds when chemical disinfectants could not be had, dry earth or dust has proved highly beneficial. The fact seems to be that neither the liquids nor gases of decaying matter can pass through two inches of earth without losing the greater part of what constitutes its peculiar characteristics, that is, its offensive or valuable portion, as the case may be. Properly used in the stables, cesspools, sink-drains, etc., dry earth will save a vast amount of valuable fertilizing matter, and prevent expensive and life-destroying disease.

CHINESE SHIP-BUILDERS.—It has been something of a mystery to Americans in the light of the remarkable depression of the carrying trade in the recent years, that British ship-builders should continue to turn out so many iron steamships. A convention of American ship owners has been proposed, to be held next October, with the view of agreeing, if possible, upon what legislation is required to place our merchant marine upon a basis that will enable it to compete successfully for ocean commerce. But the seeming mystery is largely explained by the fact that a firm of Scotch ship-builders are said to have established themselves at Shanghai, and are turning out iron steamers of the largest size. All of their 1,100 workmen are Chinese, who labor for a few cents each per day. Notwithstanding nearly all the raw material used in those yards has to cross oceans, nowhere in the world can a ship be built more cheaply. The *London Times* sees in this fact something seriously ominous to the shipwrights on the Clyde and the Tyne.