How to Help a Man Who Swears Off.

A large audience assembled at Franklin Institute Hall, Philadelphia, recently to hear the last lecture of the New Century Course for Women. Suggestions contributed by Dr. Joseph Parrish, of New Jersey, Dr. R. P. Harris, of the Franklin Home, Dr. Jos. Klapp, of the Washingtonian Home, Dr. T. D. Crothers, of the Hospital for Inebriates in Hartford, Conn., Dr. Chas. Mohr, Secretary of the Pennsylvania Homœopathic State Society, and many others, were read.

Mr. C. Gibbons, Superintendent of the Franklin Home, made an earnest appeal to women for patience with the men whose weakness has tried them so sorely, and who suffer so deeply themselves in their efforts to reform. Very interesting addresses followed from Mr. S. P. Godwin, founder of the home, and the Rev. Chas. G. Ames. All agreed that the safest of all ways to stop drinking is to stop short off from all stimulation whatever, hot drinks, cold drinks, bitters, and all the list.

The Philadelphia *Ledger* sets down some of the advice given for the benefit of those to whom such a break would be an impossibility. For such let the house mother always have on hand something hot, or tonic, or refreshing, to tide over for the hour the agonizing demand of the body for stimulation. Hot drinks—coffee, sometimes tea, cocoa, either ground or in the form of shells or cracked cocoa. This is nutritious as well as satisfying. Hot broth, beef tea, or beef essence can be bought, but are far better made at home; hot milk, ginger tea, cayenne pepper tea, and an article called tabasco, which is hotter than ordinary cayenne. Aerated drinks—lemon soda, zoedone, and ginger ale can be kept in the house, and are harmless, the tang being given by fixed air; the home-made beers, on the contrary, are treacherous, the life depending directly on fermentation. Refreshing drinks are cold milk, buttermilk, whey, drinks from lemon and other acid fruits, Horsford's acid phosphate, and what is just as effectual and much cheaper, dilute phosphoric acid. A few drops in water, sweetened, makes a pleasant drink, and ten cents' worth will last for months. Oatmeal water, just a handful in a pitcher of water. This is both refreshing and strengthening, especially in summer.

In the Baldwin locomotive shops, where about 5,000 men are employed, this is kept on hand in large quantities, and, strange to say, even drinking men grow fond of it. They say that when they drink it they don't seem to want their beer. Juicy fruits—apples, oranges, melons, etc. The surest way to bring up children not to care for alcohol is to accustom them early to liking all sorts of fruit. The lecturer spoke in the strongest terms of the misery caused by physicians by the reckless prescribing of alcoholic stimulants to patients, without a word of inquiry as to the habits or the inherited tendencies of the individual.

A New Test for Living Germs in Water.

Many analysts, says the *Brewer's Guardian*, are in the habit of testing the organic purity of a water by dissolving a little sugar in it; if the germs of any living organisms are present, the water will, after being kept in a warm place for about twenty-four hours, become cloudy, and sometimes quite milky or opaque, owing to the rapid development of fungoid organisms, resulting from the growth of the germs in a suitable nutritive medium. The test is a valuable one, but requires to be used with caution. It is well to remark, however, that some chemists believe that the growth of the fungoid organisms is dependent upon the presence of phosphates rather than upon any organic impurities, and that it is possible the germs may be derived from the air, and not from the water itself. Those who have experimented on the subject cannot have failed to observe how very varied is the behavior of different waters when treated with sugar.

Recently Dr. Smith, of Manchester, has pointed out that gelatine is most valuable in detecting organic vitality in waters. About 2½ per cent of gelatine well heated in a little water is mixed with the water to be tested, and the mixture forms a transparent mass, which is not movable like the water itself. When soluble or unobserved matter develops from the organic matter of the waters, and makes itself visible in a solid and insoluble form, it does not fall to the bottom, but each active point shows around it the sphere of its activity, and that sphere is observed and remains long. The gelatine preserves the whole action, so far as the more striking results are concerned, and keeps a record for a time, both of the quality and intensity of life in the liquid. Dr. Smith speaks of the more striking effects, which are clear and abundant, every little center of life making itself apparent to the eye, and sometimes expanding its influence to reach both sides of the tube.

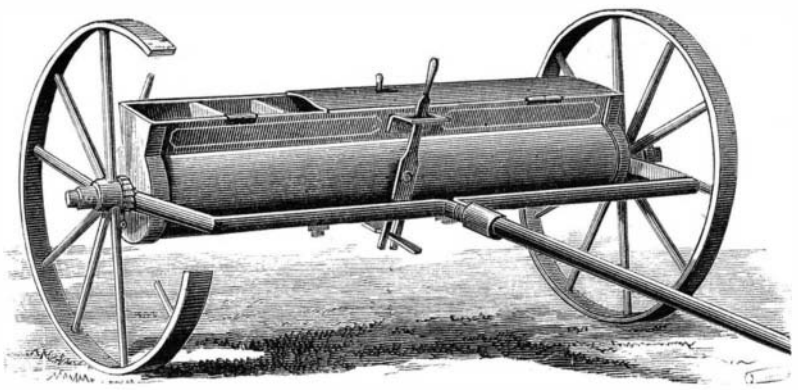
It seems to him now essential that all chemical examination of water should be supplemented by an inquiry into the comparative activity of the living organisms.

A New Moxa.

Under the name of *crayon-feu*, Dr. Moses describes a preparation made as follows: Charcoal powder, 30 grammes; potassium nitrate, 4 grammes; powdered iron, 5 grammes; benzoin, 1 gramme; the whole to be made up with some active substance into forty crayons. He so obtains a hard preparation, which is easily inflamed by a match, and which he proposes for the cauterization of poisoned wounds and when the actual cautery is required.—*Medical News; Gaz. Hebdomadaire.*

IMPROVED SEED SOWER.

This is a machine for sowing tobacco seed, cabbage seed, turnip seed, and other small seeds, accurately and expeditiously. The shell of the seed box is cylindrical, with a vertical upper part provided with a cover. The hubs of the drive wheels are connected with the axle by set screws, so



IMPROVED SEED SOWER.

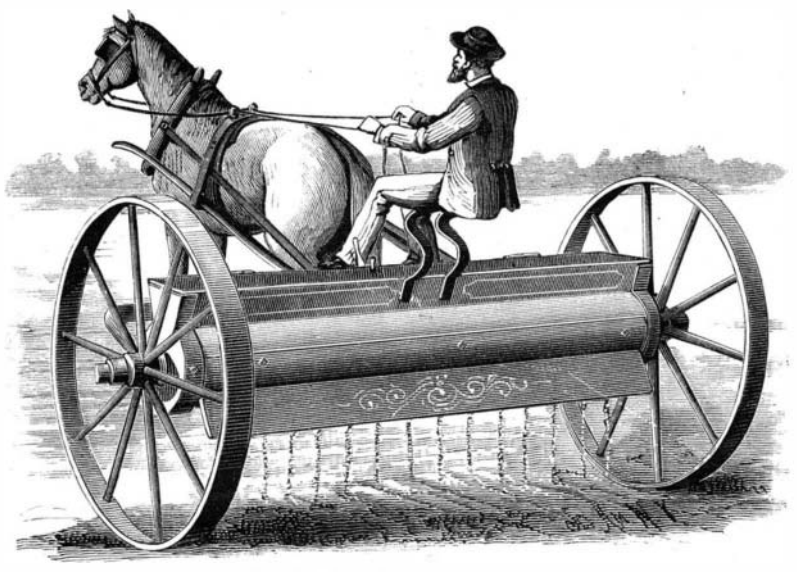
that they may be readily detached when required. The axle passes through and revolves in bearings in the ends of the cylindrical part of the shell.

To the axle within the shell are attached a number of disks, to the edges of which are attached rods extending throughout the length of the seed box. These disks and rods form a stirring reel to agitate the seeds, so that they will readily pass out through the discharge apertures in the bottom of the seed box. The disks also serve as partitions to separate the seed box into compartments, to prevent all the seed from settling toward one end of the seed box should the seed box be inclined toward either end by one of the wheels passing over a clod or other obstruction.

In the bottom of the seed box are formed two or more rows of discharge apertures of unequal size, so that either row of apertures can be used, as the size of the seeds to be sown may require.

A curved plate fits upon the outer surface of the cylindrical bottom of the seed box, and is held against the bottom of the said seed box by bands passing around the lower part of the shell, and secured at their ends to the front and rear sides of the shell. With this construction the valve plate can be adjusted by sliding the plate laterally between the shell and bands.

A plate which projects downward and is curved to the



IMPROVED SEED SOWER.

rearward, is attached to the seed box and serves as a guard to prevent the discharge openings from becoming clogged by the contact of soil with the bottom of the seed box.

The principal advantages possessed by this machine are simplicity, lightness, durability, and cheapness. It is adapted to all kinds of seeds, is reliable, working equally well on rough and smooth land, and is capable of being used when drills are unavailable. We understand it has been approved by our best farmers.

This invention has been patented by Mr. John F. Heady, of Ghent, Ky.

THE facetious Mark Twain says there is something very fascinating about science—it gives you such wholesale returns of conjecture for such trifling investments of fact.

Floral Decorations.

Ornamental grasses impart to an arrangement a lightness and distinctive character which fern fronds, handsome as they are, fail to give. Moreover, it is difficult to keep up the needful amount of cut ferns without disfiguring the plants; therefore, we should grow ornamental grasses for the purpose, thus sparing many fern fronds. Most of the useful sorts are easily grown from seeds. We sow them in March in the open border in well prepared soil—the earlier in the month the better, if the weather is favorable. We have found the following six kinds to be among the most useful, viz., Agrostis nebulosa, and pulchella.

These come into flower early, and are about the very lightest that can be grown; they are also often sown in pots, and in this manner are useful for furnishing purposes. Briza maxima and gracilis are two of the best of the quaking grasses. We find the former to be especially valuable, and to arrange well with water lilies and similar subjects. This sort is also one of the best for cutting and drying for later use; if cut while the deep green tint is in it, it retains its color better than if left till it has assumed a brownish tinge.

Lagurus ovatus (the Turk's head grass) is one of the most distinct kinds, as well as one of the best for keeping purposes if treated as just advised in the case of the Briza. For bold arrangements in association with large flowers this is an excellent kind. Another valuable grass is Eragrostis elegans; this is a later kind than those previously named, and comes in useful for cut purposes up to the time when the early frosts spoil its color. It is a somewhat stronger sort than the others; when well grown it attains a height of from 2 feet to 2½ feet high. It should therefore be allowed more room than the others in which to develop itself. The following sorts are all useful and distinct, viz, Anthoxanthum gracile, Brizopyrum siculum, Bromus brizæformis and giganteus, Hordeum jubatum, and Paspalum elegans.

Two new kinds have recently been brought forward, viz., Briza spicata and Bromus patulus nanus, both of which will doubtless prove useful. These grasses, taken collectively, are about the best that can be annually raised from seed Stipa pennata and elegantissima may be increased by division, perhaps, with more certain results than from seeds. These ornamental grasses are all valuable in their seasons, and for preserving for use afterward, not, however, after they have been disfigured by drying. When those raised from seed are well above the soil, it will be well to thin out any kind that has come up too thickly. This will throw more stamina into those that are left, rendering them more durable.

The following annuals are all useful associated with grasses, viz., Campanula loreyi and its white variety. Catananche cœrulea, sweet sultan (yellow), Rhodanthes, Linum grandiflorum coccineum, the Corn Flowers in various colors, dwarf poppies, single dahlias, which have a future before them, and last, but not least, Gypsophila elegans and its variety rosea. Many more annuals might be named, but these are among the best for decorative arrangements and for using in conjunction with grasses. One of the hardy perennials that may be raised from seed is Chelone barbata coccinea; this when in flower yields good spikes for trumpet vases.—*The Garden.*

The Great Wall of China.

An American engineer who, being engaged in the construction of a railway in China, has had unusually favorable opportunities of examining the famous Great Wall, built to obstruct the incursions of the Tartars, gives the following account of this wonderful work: The wall is 1,728 miles long, 18 feet wide, and 15 feet thick at the top. The foundation throughout is of solid granite, the remainder of compact masonry. At intervals of between two hundred and three hundred yards towers rise up twenty-five to forty feet high, and twenty-four feet in diameter. On the top of the wall, and on both sides of it, are masonry parapets, to enable the defenders to pass unseen from one tower to another. The wall itself is carried from point to point in a perfectly straight line, across valleys and plains and over hills, without the slightest regard to the configuration of the ground; sometimes plunging down into abysses a thousand feet deep. Brooks and rivers are bridged over by the wall, while on both banks of larger streams strong flanking towers are placed.

The Unused Water Power of North Carolina.

Recently, in Congress, Senator Vance, of North Carolina read from a report of the late Professor Kerr, geologist of that State, an estimate of the unused water power of the North Carolina rivers. The main streams have an aggregate length of 3,300 miles, with an average fall of ten feet to the mile, giving a horse power of 3,300,000. The numerous tributaries are not included in this estimate. The wasted water power of the State rivals the estimated engine power—stationary and locomotive—of Great Britain.