

put into the proper condition for regular culture. This can only be done if the influx of water can be regulated and the entire drainage of the pond made possible. An intrenchment will be required with such ponds in order to make them dry. Trunks of trees should be taken out of them; and where they are too deep they should be filled up. If this is not done too many fishes will remain embedded in the mud when the pond is being drained, and this lessens the profits to a great extent.

Should any brooks fall into such ponds, as is often the case with large ones, they must be kept under strict observation on account of possible overflows which might occur. If it be practicable, the brook had best be turned off and conducted alongside the pond, when the latter can be supplied with water if required.

The fundamental rule in carp culture is that the water be of the same depth in summer and winter. If the supply of water is too plentiful, great quantities of mud are carried into the pond, embedding the grass which grows in it and on its banks; this, in consequence, will rot and poison the water. The carp immediately desert such water on account of its offensive odor, and retire from their proper feeding places to depths deficient in the production of food.

The breeding-ponds have the same construction as the hatching-ponds; they have dams, reservoirs, outlet-channels, collectors, and ditches in the bottom. The only difference is in being deeper and larger than hatching-ponds. They have an average depth of 1 foot 9 inches, and the width of their shallow borders is from 70 to 80 feet. The "kettles" have a depth of 4½ feet from the surface; their borders are from 6 to 8 inches deep. The growth of grass should also be advanced in these ponds. In small ones of about 4 or 6 acres, the "kettles" may have a length and width of 60 to 70 feet.

Fig. 1 is a plan of a natural carp pond. Pond P is a natural body of water. Its extent is about 150 to 200 acres. It is formed by a dam, D, about 7 to 8 feet high, crossing the valley and thus collecting the water of a run flowing there. Before D is a deepening, C, the collector. In the dam D, there is an outlet leading to another deepening—the so-called outlet collector OC. The purpose of this collector is to keep back fishes that may have passed the outlet when opened. It is provided with a screen or netting. CD, upon the bottom of pond P, is the collector-ditch, which conducts the fishes to C when the water is let out, and thus prevents them being caught in the mud. R is the run of water which, to prevent overflow, has to be conducted around the pond in a separate ditch, leaving an inlet at J, protected by a sluice with screens. J is the inlet.

Fig. 2 is a plan of an artificial carp pond. R, stream supplying artificial pond between undulating hills; J, inlet, JD, inlet dam; CD, collecting ditches; C, collector, OD, outlet dam; O, outlet; OC, outlet collector; E, cavities, "kettles," in which the carp collect for the winter; H, canal to let off surplus water in case of frosts.

As may be inferred from the above notes and diagrams, there is a great variety in the accommodations which may be provided for the carp. As we have described such as are laid down in the official reports, we shall now be glad to receive information of any special adaptations which our readers may have made, so that those intending to try carp may have the advantage of a general recital of experiences.

**A LARGE BLOCK OF SANDSTONE.**—At the Dark Hollow stone quarry, near Bedford, O., one of the largest stones ever blasted in this country was "lifted" a week or two ago. The stone is 40 by 50 feet square, and about 30 feet thick, and it required 185 slip wedges to make a successful blast. When cut up into pieces it will make nearly 300 carloads of building stone. Immense blocks of stone are frequently taken out of the quarries here which would make the stones in Solomon's Temple mere pebbles in comparison. Its weight was estimated to be about 6,000,000 pounds.

## THE TENDENCY TO SELF-DESTRUCTION.

Albert Williams contributes to the April number of the *Californian* a very interesting paper entitled "The Ethics of Suicide." From compilations of official statistics, the author shows that the Pacific slope, and particularly San Francisco, have attained what he terms a "bad eminence." In the fiscal year, June, 1877, to July, 1878, the maximum increase occurred, being 35% more than that for the previous year. The whole number of suicides was 103, or, reckoning our population at 300,000, one suicide to 2,912 inhabitants. For the fiscal year 1878-79, the number of suicides is reported at 86, or on the same basis of population, 1 to 3,488. In New York, the ratio, at the same time, marks 1 to about 8,000 inhabitants.

Tables are given showing some of the characteristic features of the suicides for the years 1878-79. From them it appears that 80 were white and 6 Chinese; males, 76; females, 10; married, 36; single, 39; the rest divided among widow (1), widowers (4), and 5 unknown. The average age at which persons seek to drown their sorrows in suicide is 40.

Intemperance and destitution appear to be the principal reasons why people seek to penetrate the mysteries of the dark valley, the months of April, May, June and July appearing to be the season of most frequent occurrence of the suicidal mania. Only 5 out of the whole number, 86, are credited with being insane, and the author draws the irresistible conclusion that suicide is committed in a state of personal responsibility. Even with those who are credited with being insane at the moment when they seek to sever their connection with this world, may it not be because of their own indiscretions? Have they not produced by their actions and mode of living the causes which lead to the commission of suicide? If suicide is indeed a crime, does it not involve the perpetrator in a direct violation of a most sacred law of nature and God?

Among the inquiries arising concerning suicide is the question of personal accountability. No one questions that there are cases in which the subject is irresponsible, but the great majority of suicides are most certainly in full possession of all their faculties and aware of what they are doing. The very fact of deliberate, premeditated suicide precludes the ground of insanity. Some of the most eminent writers on the subject have arrived at the conclusion that the majority of suicides are of perfectly sane persons. When a person tries to drown himself, does it not often happen that contact with the cold water destroys the illusion under which he is laboring, and makes him try to save that life which only Him who gave should take away?

To take up another branch of the subject, we find that suicide is hereditary and oftentimes epidemic. It is notorious as it is remarkable, that in the same family, for successive generations, it repeats itself at the same age, by the same method and in the same place. Again, suicide is epidemic by imitation. It spreads like disease through all grades of society, and from land to land. The force of example has a wonderful effect upon the human mind of spreading all forms of vice and evil.

As to the question whether suicide is a mark of cowardice or courage, the author quotes Voltaire, as thinking the action a proof of courage—courage in kind and degree sufficient to overcome the dread of a violent death. And further, how far personal honor is involved in the act, instancing the case of the commander of a fort or a vessel, who, to escape the humiliation of a surrender, resorts to self-destruction. We think a person who commits such an act for the purpose of preserving his personal honor, will find no justification either in the eyes of man or of God.

## HOME SOAP MAKING.

Clara Francis gives the *Prairie Farmer* the following points on soap making:

**Soft Soap from Concentrated Lye.**—Dissolve a pound of concentrated lye in three gallons of water. Boil it with four pounds of clear soap fat, and when the grease is all out, set it away to cool. Add a gallon of hot water to this solution and stir it in well; in the course of a few hours put in another gallon, and continue adding water until the soap is of the desired consistency. To make hard soap of this, stir in common salt, but an easier way would be to substitute washing soda for a portion of the potash and use some lime with it. The process would be the same as the following one for making—

**Hard Soap.**—Slake three pounds of lime in a gallon of boiling water; add six pounds of washing soda and three gallons more of boiling water. Let these stand until clear, and then draw off the lye and replace it with two gallons of water. Boil the lye in an iron kettle with six pounds of clear grease, and stir it almost constantly. It must cook until it is of the consistency of honey. Try a little in a cup when you think it is done, and use the water which is standing on the lime and soda, as it may be needed to make the soap the right thickness. Pour it off clear, and put in only a portion at a time. Finally, stir in a teaspoon of salt, and pour the soap into a wet tub. You may, if you choose, substitute a couple of pounds of crude potash for an equal weight of soda. When solid, cut the soap into bars and spread it out to dry. It should harden slowly; if dried too fast it will crack. Soap is better for being kept some time. For economy's sake, it should never be used fresh.

**WOODWORK BURNED BY STREAM.**—The *American Manufacturer* says: "At the Crescent Steel Works, in this city, a steam pipe 2½ inches in diameter, carrying from 90 to 100 pounds pressure, was laid under ground about three years ago, encased in common pine boards about one inch thick. A few days since occasion was had to dig up the pipe, and the whole length of the wooden drain was found to be charred and apparently burnt about three-fourths of the thickness of the wood, the other portion being partially rotted. The whole inside of the drain was turned to charcoal, with here and there spots of white ashes, showing that ignition had actually taken place. It seems probable that if the casing had not been excluded from the air by the earth covering it, it would have blazed and been entirely consumed. It is generally believed that a steam pipe cannot set fire to wood, but this case seems to prove the contrary, and it may explain the origin of so many mysterious fires."

**BLACK ENAMEL.**—If wood is immersed in sulphuric acid it is dyed a jet black, and when dry can be polished by rubbing with a bone spatula; but what would best suit, I think, is the following: Grind up very finely some drop black in water, put the paste in a cup and mix it with a little size or very thin glue, brush the wood over with this, let it dry, sandpaper it and give it another coat, allowing it to dry well, and again apply some worn emery or sandpaper. If well covered you may now use French polish when you will have a brilliant black surface. If it is not a flat surface, brush over with a coat or two of polish varnish, made the same as French polish, only a little thicker.

**AN IMMENSE BLOCK OF GRANITE.**—What is said to be the largest block of granite ever quarried in the United States has recently been taken from a quarry at Vinalhaven, in Maine. It is 59 feet long, 5½ feet square at base, and 3½ feet square at the top. It weighs from 75 to 100 tons. It cost \$1,700 to blast it and move it to the shed where it is to be finished. It is to form the shaft of the monument to Gen. Wool, to be erected at Troy, N. Y.