

Hops as Manure.

The value of hops as taken from the brewery have been highly lauded as manure for the growing of vegetables, &c. Henderson in his "*Gardening for Profit*" gives the value of waste hops as superior to the best of stable manure; but we notice a writer in the *Country Gentleman* denounces its value—we suppose mainly on the ground that intrinsically and chemically there is in this waste little material of practical available food for plant life, beyond a certain unreliable disposition to fermentation. We say unreliable, because we have found a pile of refuse hops drawn direct from the brewery to give out a great amount of heat at certain points while at others the mass would be cool. Their value we have ever counted only as connected and mingled with fresh stable manure, giving a forward fermentation, and thus supplying heat to the bottom growth of plants in a hot-bed frame. —*E. R. L. Ont.*

Keeping Work Ahead.

The great trouble with most of us is that we lay out too much work for ourselves to do. We get a great many things half done, and work twice as hard as need be, when the same amount of labor judiciously expended would have a threefold result. This is just how it is in the waggons and fields. We are so accustomed to get into a flurry about getting in the crops in time that we forget the work crop is already in, and going on at a rapid pace. We have not unfrequently seen the potato crop not getting in seeds or plants that would have been put in as well a week later, when the same amount of labor expended in weeding ground, would have been equal to four times the time at that time. The same remarks of course apply more to garden crops than to farm work. Where horse-power is at hand, weeds half an inch high, if annual weeds, or even biennial weeds, by a broad tooth cultivator, and if they were not just pushing through the ground, but in garden work, a simple raking up of the ground when the weeds are just sprouting is quite as effective as the best hoeing would be. An hour or two riding of a garden between the rows of the vegetable crop will in fact almost render hoeing unnecessary, and thus save many a hard day's work. —*R. L. Ont.*

Cleaning Harness.

It is just as well to know that we should clean and oil the harness at least once a year, to keep it in good condition, and to prolong its useful life as much as possible. Don't let the job go to the harness-maker, but some of these busy days, when the harness is not in use, just take it into the workshop, and commence operations. Take the harness all apart, and scrape off all salt, tars and dirt, and wash the leather clean with soap and hot water. Then heat 2 or 3 quarts of neat foot oil in a long shallow pan, and draw each piece of leather through it slowly, bending the leather backward and forward, and rubbing the oil in with a cloth or sponge. Hang near the fire to dry, and repeat the process until the leather is saturated with oil, mix a little lampblack with clean tallow, and with a cloth rub it into the leather while warm, until the pores are filled and the surface becomes smooth and glossy. If a harness is oiled in this way it is never gummy, and will, therefore, keep a long time. Sometimes linseed oil or adulterated oils are used, but they dry on the leather and make it gummy, dirt and hairs stick to it, and the harness gets so filthy as to soil everything it touches. After the harness has had a good oiling an occasional rubbing with tallow and lampblack will keep the leather tough and pliable, and prevent it from cracking.

Vegetables on the Farm.

Farmers and others who rely on the crops for a living could well afford to pay more attention to the raising of vegetables for sale. It costs but little more time to have a variety than to have the one crop of potatoes only, as is too often the case. Our most thriving farmers around our cities, are those who cultivate a variety of vegetables and sell them with their market produce once or twice a week. One of the most successful farmers we know of grows largely of fruits and vegetables, has a large dairy and his own waggons distributing milk. As fast as his various crops are ready they are taken to the city daily and sold directly to those who will use them. He makes a point of getting in his crops early, and often is first in the market with potatoes, asparagus, beets &c. It is well-known how soon the proceeds of sales from the wife's bed of dahlia reaches ten or twenty

dollars, and it is astonishing how soon a few extra articles added to the waggon load will count up. All farmers mainly agree on the absolute necessity of a good dairy. Indeed on many farms, even so far as fifty miles from the cities, it is the main reliance; the profits from this source alone in very many cases paying the rent and expenses. When with this is brought daily to the city a full assortment of vegetables, the owner may be sure he will "get along." —*Panama Telegraph.*

Rules for Handling a Gun.

I. Never handle a gun unless you know how, nor suffer any person over whom you have control to handle one unless he knows how. You have no right to endanger your own life, or the lives of others by handling a dangerous weapon in any other than the safest manner.

II. Always handle a gun as if it was loaded; never let it point at yourself or any one else; never point a loaded or unloaded gun at any living thing unless you mean to kill. Hardly a week elapses that the papers do not report that some idiot has snapped a gun at his wife or daughter, supposing it unloaded, and has therefore had the misfortune to kill a human being. The gallows should rid the community of such unmitigated fools.

III. Always carry your gun at half-cock, never with the hammer upon the cap. This rule is almost invariably violated by countrymen. A few experiments demonstrate its correctness.

1. Half-cock your gun, if it will pull off in this condition, take an axe and split the stock, bend the barrel and sell it for old iron.

2. If it will not pull off put a cap on the cone and let the striker drop upon it, now strike the back of the hammer with a stone or against the door jamb, and if the striker fits the cone decently well the cap will be exploded. This is what happens when a man carrying a loaded gun with the striker down upon the cap, shoots himself while riding in a waggon, in tumbling down, or in climbing over a fence or stone wall.

3. Put a cap upon the cone and let the strike back almost to half-cock and let it fall. If the main-spring is good for anything, the cap is exploded. More accidents happen in this way than in any other. A gun is carried through underbrush dragged out of a boat, pulled on the ground by the muzzle, your dogs jump upon you, the hammer catches in your clothing; in either of these, and in a hundred other ways, the hammer is liable to be drawn back almost to half-cock, and then let fall upon the cap. If the gun is a good one an explosion ought always to follow.

4. Now half-cock your gun, draw the hammer back nearly to full cock and let it fall. It will step in the half-cock notch, and no blow is given. So always carry your gun at half-cock. If you cock it, expecting to get a shot and are disappointed, hold the muzzle straight up in the air, and let the lock back at half-cock.

IV. If you know of no other way of ascertaining whether a gun is loaded or not, than by putting it in your mouth and blow, or if you feel inclined to draw the cap, retire to a safe distance and at once blow out your brains, if you have any, before you kill or maim other people by your stupidity and carelessness. —*American Sportsman.*

Paper as a Material of Construction.

The *Iron Age* contains an article on the use of paper as a material of construction from which we condense as follows:—Whether or not we are about to enter upon what will be known in the future as "The Paper Age," has lately become quite an interesting topic of discussion. Be this as it may, there is evidently a future for paper, in which it is to become the general, if not universal, substitute for wood, leather, India rubber, and, to some extent, copper, tin, and zinc. During the past few years a great deal of attention has been given to this subject, and the results already attained, though comparatively unimportant in themselves, show the possibilities of this material and its more or less perfect adaptation to a thousand uses to which no one has yet thought of applying it. In proportion to weight, it is probably the strongest material known, and combines more perfectly than any other substance, the qualities of strength, lightness, flexibility, durability, and cheapness. So many and various are the materials of which it can be made, that it can be manufactured in quantities practically unlimited in every civilized country in the world, and so long as plants grow, paper manufacture can be sustained. It is under all circumstances, an easy material to work and handle,

in short, it possesses every requisite quality, and, like many another material now indispensable, its utility is discovered just as we are beginning to feel the need of something cheaper and more abundant than wood, leather, and hard rubber to substitute for them.

Some idea of the diversity of uses to which it has already been applied may be inferred from the fact that at the recent fair of the Franklin Institute, the display of articles made wholly, or in great part, of paper, comprised oil cloth, patent leather, and leather suitable for in-soles, gas pipes, whip handles, saw handles, knives and forks, combs, buttons, washers, roofing, and car-wheels. There are also many other uses to which it has been adapted, which were not shown, such as slats for window blinds, panels for doors and ceilings, boots, cellars, cuffs, bosoms, etc. The Japanese, in fact, make almost every possible article of clothing of paper, from a pocket-handkerchief to an overcoat. Even iron is not adapted to uses so widely various, and certainly no other material has yet been found which, at the same cost, could be made to answer so many purposes. These it must be remembered, are but the first fruits of American inventive talent, as yet scarcely stimulated in this direction; and what may we not expect when, with a growing demand for manufactures of paper, there shall be more inducement than now offers for investigation and experiment. Why cannot our railroad cars be made of paper, instead of iron, as proposed, so as to prevent the danger of splintering and burning in case of accidents? As timber becomes scarce, our houses can be entirely built of paper. It is said that the paper pulp can be readily brought to such a state of toughness and solidity, by pressure, so as to be almost as fire-proof and indestructible as iron. It requires but little farther progress in this new branch of manufacture to so perfectly and universally adapt it to all the varied requirements of the human family, that the coming man would have little use for anything else from the time he was placed in his paper cradle until he should be gathered to his fathers in a paper casket.

Copper and gold will conduct electricity six times better than iron or tin, and twelve times better than lead. Zinc will conduct nearly twice as well as iron, silver more than four times better.

DO IT WELL.—There will be an inclination on the part of farmers this spring to slight the work of preparation of the soil. There will be much work to do in a short time, with little help, and too many will think that for this once it will do to get over the ground in the quickest and easiest way. Let us urge all who are thus oppressed, to consider the result. Cultivate less land and do it well, the crop will pay as well on a small space well tilled, as on a broad area half cultivated. —*Harvard Farmer.*

FIRE EVIDENCE.—Paper is largely utilized in Europe. They are converted into a kind of wool or wadding, which is used for upholstery instead of hair. A kind of flannel is also made from this fibre, which is said to be very superior for many hygienic uses, as for rheumatism and skin disease. Vests, drawers, loose shirts, etc., are also made. In the process of manufacture an ethereal oil is also obtained, very useful as a solvent, and as a curative agent. Gas is also made from the refuse and used for lighting the manufactories, or the entire refuse may be pressed into the form of bricks, when it becomes a most excellent substitute for coal.

MANURES.—Manures must not be so exposed that the dashing rains will wash everything soluble out of them. Let the soluble elements find their way to the soil, rather than to creeks and rivers. Economy, or the want of it here, is enough to make a nation rich or poor. It will not pay to let manures flow to creeks and rivers, and then go to the Guano Islands to get them back again. Cart manures to convenient places and all the better if they are protected by a coating of earth till ready for use. Spread no more than can be plowed in each day, especially on hill sides. All manures rot used in the spring should be thoroughly composted and protected for future use. —*Et.*

A NOVEL METHOD OF CATCHING MICE.—A Correspondent of the *Journal of Pharmacy* says:—"Having noticed mice in our seed barrels, I thought me how I might trap the little intruders. I thought of saturating a piece of cotton with chloroform and throwing it in, then closing the lid. On raising it again in a few minutes, I would find that life had almost or quite departed. Having on one occasion left the piece of cotton in the barrel, on again returning, I found three mice with their heads in close contact with it and dead. In the evening I saturated another piece and placed it in the barrel, and on opening it the next morning, to my surprise I found nine dead mice."