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TRAPPERS.—Please note I don't want rabbitskins at present.

GARDEN NOTES.**THE VEGETABLE GARDEN.**

Watering and weeding will be the principal work in this department during this month, and both must be done in earnest. Hoeing, if carried on systematically, will not only prove beneficial to the soil by assisting to retain the moisture, but will so destroy the weeds and weed seeds that an incalculable amount of labour will be saved in the shape of weeding later on. Watering is a work that should be well done, or, on the other hand, should not be attempted. Ordinary sprinklings are often injurious rather than beneficial. Where water is scarce it is better to withhold it as long as possible and then give it in abundance.

Peas and runner beans should be sown as required. Very suitable material for staking these is large 6in-mesh sheep wire netting, with stakes driven in through the meshes on either side and brought together at the head, but for the runner beans long stakes are best.

Plant out cabbages and cauliflowers as the weather permits. If the plants are strong and ready for planting the safest plan is to give the plant bed a good soaking and pull the plants with care, and with as much soil attached as possible; then plant, and give a good soaking immediately after planting. Give frequent waterings until they have got a good start. Neglect of plants in their young stage will almost surely prove fatal, especially if the season be a dry one. If they once get a good start neither blight nor club root will be so liable to attack them.

Sow for succession peas, French beans, lettuce, radishes, short horn carrots, young onions to be sown and early-sown ones carefully thinned. The best onions for keeping are the moderate-sized ones, perfectly ripened, therefore the thinning should not be too severe; but for large exhibition tubers 6in apart will not be too much. Sow also parsley for winter use, and spinach should be sown for coming in late autumn. Turnips should be sown for succession. Give good fresh and well-manured ground for this sowing, as poor, slow-grown turnips at this season of the year are not worth eating, as they are very strong and bitter, but if well and quickly grown they are very different.

THE FLOWER GARDEN.

Anemones: Those who grow this flower from seed should make a sowing as soon as favourable weather occurs, giving good, rich soil, and cover the seed bed to retain the moisture and to assist germination.

Wallflower: This fragrant spring flower is not always grown as it should be. It is often sown too late to become established before the winter sets in. Sow during this month in drills 9in apart, and thin out to 3in, and transplant the thinnings, and when the ordinary bedding and other plants have done flowering in the autumn a clearance can be made and the wallflowers lifted with a ball of earth attached, so that they may be planted with as little check as possible.

THE GREENHOUSE.

Chrysanthemums will require a deal of attention by way of repotting.

Pot on begonias as the smaller pots become full of roots, using good, rich loam, old manure, and sand.

THE FRUIT GARDEN.

Attention must now be paid to wall fruit trees—thinning out and stopping or removing, as the case may be, all breast wood or excessive growth before it becomes too strong. Tack in your growth where vacant spaces occur. In the case of young tree of recent planting, where they have been hard pruned back, care should be taken to remove young cross shoots and to remove or thin out some where these shoots are overcrowded.

Raspberries will require attention by way of keeping down suckers between the rows. Cut them down with the hoe or spade. They would be greatly benefited if they could receive a good mulching with stable manure.

Gooseberries.—The thinning of the green berries should be done now if first-class berries are desired. This is an advantage in two ways, as green gooseberries are very valuable for kitchen use, and the remaining fruit is much benefited by the thinning.

Apricots that are showing large numbers of green fruit should have a thinning, so as to enable the fruit to develop to a proper size, which is quite impossible whilst they are allowed to remain crowded. Apricots are very free setters, unless where severe frosts have thinned them.

SCIENCE NOTES.**ELASTIC FOUNDATIONS FOR PAVEMENTS.**

For permanent pavements, heavy, solid, foundations have generally been considered necessary by engineers. Apparently this rule is to be changed, for porous, non-rigid bases were advocated by several experts at the recent convention of the American Society for Municipal Improvements, as reported in "Municipal Journal and Public Works" (New York). Non-rigid bases for pavements were once the rule. Many of our readers will remember seeing brick and stone surfaces laid over a foundation of sand or gravel; but such construction has generally been looked upon nowadays as out of date, and a make-shift. At the convention, however, one expert maintained that for asphalt and similar surfaces a rigid base is actually detrimental. In recent experience, we are told, bituminous concrete has worn better over old macadam than the same over concrete. Says the paper named above in its report of the convention:—

"Four of the authors of papers discussing paving matters which were presented before the American Society for Municipal Improvements at New Orleans expressed the opinion, either directly or indirectly, that under certain conditions a cement concrete base not only was not necessarily the best for a given pavement, but might even be less desirable than a less rigid base such as bituminous concrete or macadam."

"Mr Will P. Blair said that out of a study of the action of brick pavements had grown the belief that a rolled broken stone base will so perform a drainage function as to stabilize soil support and at the same time afford sufficient voids that frozen moisture content will cause but little expansive force, and therefore that a broken-stone base practically eliminates the injury from frost action that is occasioned by such action even when cement concrete bases are used. A combination of a rolled broken-stone base and an asphalt filler protects against injurious effects in a most wonderful way. These qualities, thoroughly understood, combine an element of economy so great that it may be regarded as real progress in economy of brick-road construction."

"Major E. A. Kinsley said in his paper: 'The Tillson-Lewis report reads:—'Happily, most of the French roads will make excellent foundations to which it will be sufficient to apply appropriate wearing surfaces.' No hint or suggestion is made as to tearing up the old macadam that it may be replaced with an expensive foundation. No more is there necessity in every many instances in our own country for tearing up well-built gravel, water-bound macadam, or even bituminous surface-treated macadam to put in new foundations. Thousands of dollars per mile upon thousands of miles of thoroughfares can be saved to the property-owners by intelligent use instead of destruction of the work already done and the expenditure already made. Eight hundred million dollars, it is estimated, has already been spent in the United States on water-bound macadam and gravel construction. The hundreds of millions saved by utilizing good macadam for foundations will build thousands of miles of additional roads.'

"Mr Frederic A. Reimer, in presenting traffic data collected on Essex County roads concludes that 'given an old Telford macadam foundation from eight to ten inches in thickness, with the subsoil thoroughly drained, a bituminous concrete surface not less than two inches in thickness will economically carry both light and medium traffic.' Light traffic he defines as not exceeding 150 tons per foot of width of roadway travel, with the combined weight of vehicle and load not exceeding fifteen tons; while medium traffic would lie between 150 and 300 tons per foot of width of roadway travel, with the same limit of combined weight of vehicle and load."

"Mr Geo. C. Warren went into the subject much more exhaustively, devoting his entire paper to it, and some of the principal points which he made are as follows:—

"The essential requirements of a pavement foundation are resiliency and strength. These may be mutually exclusive, and the engineer must adjust a compromise between them depending upon the requirements of each particular road. Only less important is a union between the base and the surface as close as is practicable with due consideration to the other factors."

"Strength Mr Warren considers less important than resiliency; in fact, he believes that 'extreme strength of foundation, which necessarily includes rigidity, is actually detrimental under many, if not most, conditions of subsoil and drainage.'

"The highest degree of tensile strength and its attendant rigidity necessarily carry with them the certainty of more or less

cracking from contraction and heaving from expansion under climatic changes. Serious cracks in a pavement foundation will cause corresponding cracks in the wearing surface.

"The cracking is immediately followed by serious wearing of the edges of the cracks under normal traffic."

"If we want to break a surface with the blow of a hammer, we would place it on a rigid, solid stone or anvil, knowing that if we should place the substance on a piece of rubber (which is the acme of resiliency) the blow would have no effect whatever. So in a pavement surface, if other conditions, including drainage, subsoil, and character of wearing surface make the use of a resilient base practicable, then the wear and tear on the wearing surface under the blows of traffic are vastly less than if laid on a rigid base."

MOTORING NOTES.

The following amusing incident is related by a writer in a recent issue of "The Motor":—During the war I had occasion to be motoring in a Crossley tender along a bad road in North Persia. It was with interest that we watched the approach of another car, as the road was seldom frequented by vehicles other than Persian cars. As the cars approached one another it became apparent that the other was an American car, one of the "very cheapest" variety, and that, on closer inspection, it contained a general. The two cars drew up alongside one another. We got out and spoke to the general. His thoughts would have been interesting—"These young fellows rushing about in a Crossley, while I have to tolerate this. It's all wrong." This, however, is merely a surmise on my part, as he mentioned nothing to that effect. Eventually he said: "I must be getting on." We wished him "God speed" as he stepped back into his car and wrapped himself up in his rug. The car started. We stood to attention and saluted, while the general waved his hand and shouted "Good-bye!" At that moment the back wheel came off. In spite of the aggravation caused thereby all ranks could not refrain from laughing. It called to mind Harry Tate in "Motoring"—"What's the use of saying good-bye, we're not going yet." The general got out, and we started to search for the nut. As I was searching one of those many stories flashed through my mind, and I wished they had provided a squirrel with the car. It might have been more successful in its search than we.

IN CASE OF FIRE.

A fire-extinguisher should always be carried in the automobile—preferably beneath the hood on the intake side of the engine, as this is usually where the fire starts. If it is carried on the dash there is always danger of its being stolen.

When the fire starts try to turn off the fuel at the tank, thus preventing the spread of the flames. Step on the starter pedal and turn the engine over—this will usually draw the flames into the manifold and extinguish the fire. If the drip-pan is aflame, turn the extinguisher on it before it attacks the carburettor, as the carburettor parts are of metal and are easily injured. If the flames spread to the ground under the car, push the car forward with the self-starter, having the low gear in mesh.

If there is no extinguisher thrown sand, flour, or any dry powder upon the flames; but be careful about throwing it upon the engine, as it is very injurious to the mechanism. Never throw water on burning oil or gasoline. Always remember that flames burn upward, so start your fire-fighting at the bottom.

Above everything, do not lose your head for if you do the whole situation is lost, and the car, too, if some one else doesn't take charge.

One successful means of eliminating the chances of fire is to keep your engine immaculately clean at all times. Grease and oil encourage fire, and once started under these, the difficulties are enormously increased.

MORE WORK FOR REPAIRERS.

The frequency with which one hears the grinding and rasping of gears, due to very faulty gear changing, is an index to the large number of inexperienced users of cars on the roads nowadays, and as most of these cars are new ones, recently delivered, the inevitable damaging of the gears means that repairers are shortly going to have a busy time over-hauling gear-boxes. Incidentally, too, it shows the foresight of Henry Ford when he decided years ago to adopt a practically "fool-proof" gear in preference to following orthodox practice and using a sliding gear.

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