

The Home

SOME POSSIBILITIES OF RAGS.

When one has more leisure and energy than money, she can get "a deal of comfort" and satisfaction from her rag-bag.

Begin with the silk scraps. Cut these like carpet rags, from one-quarter of an inch to one inch in width, and sew the ends together on the machine, lapping and stitching without breaking the thread, cutting apart when all are sewed; or tying them by lapping the ends, cutting a small slit, as if for a button-hole, and drawing one end through.

Have the carpet-weaver arrange the warp, dark red warp is most desirable, in clusters of four threads, as close together as possible, with spaces of one inch between the clusters. These are handsome in all "hit-and-miss" or "Roman stripes"—that is, each color sewed and wound by itself, and woven in stripes of irregular width; or they may be combined, using the hit-and-miss, which produces a neutral effect, for the main portion of the curtain, with stripes in rich dark colors for the dado. The striped ones give quite an oriental aspect by inter-weaving an occasional row of heavy tinsel, being careful not to overdo it, or the effect will be tawdry. Have the ends of the warp carefully tied and clipped; then cut up from the bottom of each curtain four inches, in the space between the clusters of four threads, and the result is a very novel and effective fringe. By exercising judgment and taste in combining the colors, you will have a pair of portieres, curtains or a couch cover handsome enough for either city or country house, warranted to outwear the owner; and in these days of lavish use of silk for shirt-waists, petticoats, linings, etc., not difficult to procure; a ball weighing one pound will make one square yard. The ordinary hand-looms will weave one yard and four inches wide.

There has been something of a revival of rag carpets, or, rather, rag rugs; woven exactly like the old-fashioned rag carpet, and at springs and seashore last summer, the preparation of these rugs took the place of the ubiquitous "fancy work."

I have seen some quite artistic small rugs. One of these, for a Deift room, was entirely of white cotton rags, with the warp of blue. Another rose-color, with black warp, this rose-color was made by dyeing white cottony rags with Diamond dyes, and was intended for a bedroom which had pink draperies, and one of scarlet with black warp, made from a lot of old bunting that had been used for decorating at a church fair.

The white rugs can be put into the wash-tub when soiled. Diamond dyes will enable one to choose one's own colors in either silk or cotton. The soft all-wool rags, cashmeres, henrietas, flannels, choosing rather darker colors, and woven like the above, are an economical addition to a bedroom, saving the carpet in those much-used spots in front of bureau and wash-stand.

One lady of my acquaintance had several old ingrain carpets thin and ragged. She paid a colored woman a dollar and a half to cut into strips half inch wide, and had them woven with dark-blue warp, which mingled with the warm reds, browns and yellows if the carpet equalled, in beauty of coloring, a Turkish rug. The twenty yards of carpeting cost her six dollars and a half. Another one had a pair of dark tan chenille portieres with dull red borders, which had pulled into holes; these she had cut into strips, and the three yards of carpet made a pretty rug for passage.

So do not sell to the rag-man for a few pennies, what may, with a little effort, be made into a thing of beauty and a joy for, almost, ever.

HOW TO REMOVE STAINS.

Tea and coffee usually readily yield to the purifying influence of boiling water poured through the fabric; so, too, do some fruit stains. An application of lemon juice and salt, with good sun exposure, is an old and in many instances an effective remedy. Grass stains usually can be removed by dipping in a solution and application of a paste made of cream of tartar wet up with water will remove them when alcohol will not. So, too, cream of tartar and water will remove iron mold spots, drying on the grass in the sun. If one application does not remove, repeat. Soaking in sour milk over night will usually remove ink stains, while the juice of a ripe tomato is useful in removing stains from the hands. Kerosene will clean many stains from oil cloth, brass or copper. Surfaces that would be marred by sand soaps can often be nicely cleaned with kerosene, followed by an application of hot soap suds. But my standby when all other remedies fail to successfully remove stains from white fabrics is javala water. It is easily made, and once used no housekeeper will be without it. The formula is as follows: Four lbs bicarbonate of soda, 1 lb chloride of lime, pour over the soda 1 gal. of boiling water, place over the fire and boil 15 minutes, then stir in the chloride of lime until thoroughly dissolved. Al-

low to cool and settle, then strain through cloth, bottle and set aside to use. To remove stains, wet the stain in cold water, dip up and down until the spot disappears, then wash as usual. Do not use on colored materials, as it will destroy color. It will remove ink stains better than any other preparation we ever tried. One teaspoonful of this liquid to a boiler of water whitens garments that have grown yellow from disuse.

HOUSEHOLD HINTS.

Few things are more displeasing to wash than cut glass. The crevices so readily secrete dust where it is hard to get at. By washing the whole with hot suds, and scrubbing the cuttings with a moderately stiff brush, however, then rinsing in warm water and wiping dry with tissue paper, the work will be done very satisfactorily.

Are you ever annoyed by having your silver spoons and forks in daily use tarnish? If so, leave them in strong borax water several hours, the water being at boiling point when they are inserted.

After peeling onions, rub the hands on a stick of celery, if you wish to banish the smell of the former. Don't be afraid of purchasing coffee enough to last six months or a year. Coffee when kept in a cool, dry place improves with age—that is, if it has not been browned.

In mixing mustard for table use, never add vinegar, since this destroys its life and flavor. Use hot water for moistening it, rather, having the water at the time of using only blood warm.

Remember that iron and polished steel, when not in use, may be kept from rusting by wiping with a cloth on which a little kerosene has been poured.

Never pat and smooth down mashed potatoes. Doing so makes them heavy. To renovate varnished paints, save some tea leaves for a few days, steep them in a tin pail for half an hour, then strain through a sieve and use the tea for cleansing the paint. Owing to the fact that the tea acts as a strong detergent, it makes the paint nearly equal to new in appearance. Don't however, make the mistake of washing unvarnished paints with it.

In boiling catsup or pickles, boil the corks, and while hot press them into the bottles, which, on the corks cooling, will be tightly sealed. Utilize the tin foil from compressed yeast, or anything else of a cleanly nature, for covering the corks, and you have the matter complete.

A kitchen, to be up to date, should contain a small table about the height of the range or stove, to serve as a resting place for utensils when omelets griddle cakes and such like are being made—not a plain table, but a table covered with zinc.

If you would have a new broom last well and at the same time be pleasant to use, immerse it in boiling water, leaving until quite cold, then thoroughly dry it in the air. The truth is, frequent moistening of a broom adds to its usefulness, and also saves the carpet.

Don't forget that one of the best contrivances for keeping knives, forks and tablespoons in is a pocket tacked on the pantry door. Make it of enamel cloth, line with red canton-flannel and stitch small divisions to fit each article. Thus "put up," they will keep bright and clean, for the canton-flannel will absorb all moisture that may be left on them.

To avoid any unpleasantness to the eyes when peeling onions, while doing it sit in a draft of air, as by an open window or door. If this is an impossibility, then hold the knife, onion and hands under water.

If ever you are so unfortunate as to have a very bad ink stain occur on a carpet of very delicate colors, rub it with buttermilk, and when the stain is almost effaced, wash the place with a cloth wrung out in boiling water without soap. This done, cover the spot with a dry cloth, and so let it remain for a day.

BOUND TO WIN.

The late Lord Glenely was fond of telling the following story of Mr. Labouchere, father of the first Lord Taunton, as illustrative of the enterprise necessary to the success of the poor but clever young man:

As a young man Labouchere was employed in the great mercantile house of Hope. When it came time to marry having discreetly made his own choice of the lady, he applied to Sir Francis Baring for leave to pay his addresses to his daughter. Sir Francis demurred, as Labouchere, though a rising young man, had no fortune.

"But if Hope takes me into partnership?" said Labouchere.

"Oh yes, if Hope takes you into partnership."

Labouchere then went to Hope, and intimated his wish for this arrangement. Hope in his turn demurred.

"But if I marry Baring's daughter?" said Labouchere.

"Oh, if you marry Baring's daughter—"

This was enough for Labouchere. He concluded his wooing by marrying Baring's daughter, whereupon he became a partner in Hope's.

WHERE CHEMISTRY FAILS.

Mrs. De Jones — My baby spilled about a quart of ink on a lot of old rags, and a drop or two got on my best dress. Have you anything that will take ink out?

Honest Druggist — I have many things that will remove ink from old rags, but I don't know of anything that will take ink out of a best dress.

WONDER OF LIQUID AIR.

PROPERTIES AND CAPABILITIES OF THE NEW AGENT.

Can Melt Iron in Ice—Beef, Butter, and Eggs May be Frozen, and Pounded to Powder—Uses in Surgery.

The latest scientific marvel is the discovery of Mr. C. E. Tripler of the liquefaction of air, and the wonderful uses to which it can be put. In an interesting paper in Pearson's Weekly, Mr. Tripler describes the uses to which the new agent can be put, and outlines the probabilities of the application.

"Liquid air," it seems, is obtained by a process of great pressure, wherein eight hundred cubic feet of ordinary air becomes one cubic foot of liquid, and it is in this great concentration that its potency lies. Its temperature is actually about 312 degrees below zero.

FROZEN AND PULVERISED.

In its expansion as it returns to its gaseous state lies a power of the highest efficiency, easy to control, ready to be harnessed and utilized. If a tumbler be filled with the liquid, it boils vigorously, absorbing a portion of the heat around it, and at the end of half an hour has completely disappeared, indistinguishably mingled with the air above it, from which it differs only in its greater purity. The tumbler, meanwhile, has become thickly coated with frost. It has the appearance of pure water, except that it shows a pale-blue tint, which intensifies as the evaporation proceeds. There is no difficulty or danger in handling it, provided reasonable precaution is used, and the gases are not confined. It can be ladled up with a tin cup, and poured into almost any sort of dish, like so much water. If you chance to drop the cup, however, it will shatter like thin glassware. An oyster dipped for a moment in a bowl of the liquid becomes as cold as if it had remained in a refrigerator for hours. Raw beef-steak may be frozen until it freezes, when struck, like a piece of bell-metal. While in this condition it may be broken in fragments with a hammer, and pounded into powder. Butter, similarly treated, may be reduced to a fine, dry dust; fruit and eggs may be pulverised in the same manner. Wool, under ordinary circumstances, will not burn; it merely scorches and crisps, and gives off unpleasant odours. But when saturated in liquid oxygen, at the touch of a match, it flashes up like so much gunpowder, and is gone in a moment. A mass of felt treated in the same manner burns more like dampened gunpowder, with a series of spluttering flashes, but it also is completely consumed.

IRON MELTED IN ICE.

Mr. Tripler describes an experiment giving a contrast of extremes of cold and heat which is without precedent. Pouring some of the liquid into a smooth glass tumbler, he says, I dip the bottom into a vessel of water. A thin casing of ice immediately forms about it, but at once begins to crack with the intense cold. By repeated immersion, however, adding coat after coat, I presently get a sort of ice cup, thick enough to bear handling after the tumbler upon which it has been moulded has been withdrawn. This ice-cup I partially fill with the liquid, and when I dip into it the end of a steel wire, to which a lighted match is fastened, the hard metal burns explosively, like a fuse, with a brilliant effusion of sparks, so that the chilly crystal about it glows like a lamp. On inspecting the cup after this display of fireworks is ended you will find that the sizzling metal has covered the bottom with heads and pellets of steel—we have actually melted iron into a crucible of ice! It remains to show the explosive power of this mysterious liquid. I saturate in the azure-tinted liquid a wad of oily cotton waste, and place it in a steel tube of great strength, open at both ends. When a spark is applied—which must be done from a safe distance—the tube is rent in fragments. If the wad were first wet with turpentine, the explosive force would exceed that of gun cotton. This compound is well suited for use in shells or torpedoes, and might easily be made a destructive agent of terrible efficiency in war; no thickness of armour-plate could resist its ruthless energy. Moreover, there would be no risk in the handling, as it is not exploded by concussion. It can be discharged only by contact with a spark; the whole effect is produced by practically instantaneous combustion.

ITS USES IN SURGERY.

Liquid air is no mere curiosity of the laboratory and the lecture-room; its possible uses are manifold and some of them are of incalculable importance. Doubtless the most obvious application is for purposes of refrigeration. Nothing can be imagined better adapted for such use, since liquid air furnishes a clear, dry, cold, easily-delivered at any temperature required. With its aid, the transportation of fresh meats, fruits, and the like, to any distance, on either steamships or by rail, becomes a simple matter. In hotels and other large establishments, the same motive power, which is used for running the lifts and driving the dynamos might be turned to account for all kinds of refrigeration; in the heat of summer it would be no more difficult to cool the air of our apartments than we now find it to warm

them in winter—nor would there be any deleterious gases produced, as by combustion, requiring to be carried off through pipes and flues. On the contrary, the incidental product would be like the purest and most bracing mountain air. The possibilities in medicine and surgery are numerous. By means of this process, air, absolutely free from germs, could be furnished in any amount; and if the stimulating effect of an excess of oxygen were desired, it could be had without trouble, quite free from the impurities which now often make this gas objectionable. The temperature of hospital wards, even in the tropics, could readily be cooled to any degree prescribed by the physicians in charge; and by keeping the air about yellow fever patients down to the frost point, the nurses will be perfectly protected against contagion and the recovery of the patients themselves facilitated. Again, the cauterising cold which liquid air is capable of producing might be used in cases of cancer with great advantage, since, while it absolutely destroys the flesh to which it is applied, its action is perfectly under control, and can be stopped in an instant.

HIGH EXPLOSIVE AND MOTIVE FORCE.

Its possible use as a high explosive in war has already been adverted to. Further, military authorities are already making enquiries as to its application to the cooling of guns when in action and there is no obvious reason why it should not prove highly efficacious, and of great value in their way. Still more important, however, will be its service as a motive force on warships—or, indeed, on any ships. It can be handled with perfect safety in an ordinary engine, in the same manner as steam, but without requiring oppressive heat. Freed from the necessity of carrying an immense weight of coal, yet furnished with a motor capable of producing any amount of power needed, vessels would be able to make voyages of any length at a speed equalling that of the swiftest torpedo boats, running at the rate of forty to forty-five miles an hour. And in submarine boats, the motor itself would supply all the air required for breathing, abundant, cool, and pure, instead of generating overpowering heat and stifling gases, as is the case at present. It is also worth while considering its application in connection with the difficult problem of aerial navigation, which would probably be solved, since all that is now wanted, practically, is a motor sufficiently light and strong and safe. With liquid air no fire would be needed—the heat of the surrounding atmosphere would be entirely adequate; and for this reason, and because there would be no moisture to effect them, the boilers could be made of paper. Aluminium scarcely heavier than paper, yet nearly equal to copper in ductility, could be used for the coils and other necessary parts of the mechanism.

JACK READY IF WANTED.

Meanwhile He Plays Football and Talks of the Navy's Worth.

The situation in naval circles in England, says the London Daily Mail, of a recent date, may be summed up by saying that work is simply going on as usual, and that, though that is so, there is not the slightest chance of our tars being caught napping.

A rumour that said that Naval Reserve men had been ordered to hold themselves in readiness is quite unfounded.

Enquiries prove that statements as to bringing up sea-going ships in harbour to their fighting complement having been officially ordered at Portsmouth is mere gossip. The battleship Trafalgar, portuwardship, is the only one there, to which such an order would apply.

In Portsmouth garrison no unusual orders have been received, but it is expected that unless matters calm down within the next few days there will be a more or less complete mobilization of the artillery units to man the defences.

Naval men do not believe that France will be so unwise as to force on hostilities; but that if she does we shall be ready for her.

All the responsible departmental officials, both by word and demeanour, show that they are convicted that the command or the section of responsibility for which each is individually liable is ready for any call.

The First Lord has but to put the magic word "Mobilize" on the wire and there will be a response at the home dockyards that will surprise the world. This may not be generally known, and although perhaps a small matter, yet it is just one of the many things that could be done.

Our tars, both officers and men, view the possibility of war with the greatest equanimity. Not the slightest excitement prevails among them.

"If we are wanted we are ready, and if we fight, we shall win," is the terse way in which they sum up the situation.

Naturally the gravest interest is taken in the progress of events, but Jack views matters with the utmost nonchalance. Should there be war our ships will put to sea manned by crews who feel confident that they will be able to achieve the same results as did the seamen of Nelson's day.

Anyone who mixes much among them just now cannot help being impressed by the calm self-assuredness which dominates all ranks. To questions as to what would be the result of hostilities the invariable answer is, "We should win."

Agricultural

BEST ROTATION FOR A STOCK FARM.

Nearly always in the run of a series of years the farmer meets with some difficulties in any system of rotation that he may adopt. The section of country in which the farmer has his farm, the climate and the crops grown have much to do with the rotations most advisable for him to follow. In sections where corn can be successfully grown, clover will be equally successful, and these two should always be a part of the rotation. With these a third and even fourth crop may come in as the farmer desires. If clover, wheat and corn are used, a three-year rotation must be followed, allowing one year to each crop. This is probably as short a rotation as can be successfully used. If Timothy is sown with the clover to occupy the land at the same time, the clover and Timothy may be allowed to occupy the land two years, but we doubt very much whether the stock farmer will find Timothy a satisfactory feed for his growing stock. Clover hay is much the better for all growing stock. Where oats can be successfully grown the rotation can be lengthened one year by following corn with oats, following oats with wheat and sowing the clover in the spring after the wheat is sown. This four-year rotation requires the plowing of the land twice, while the three-year rotation only requires the land to be turned once with the breaking plow. It should be remembered that if Timothy is used in the rotation, it is a surface feeder, as it were, a robber plant that may not return to the stock farmer a just compensation. When the farmer has thin land that he wishes to improve rye can be used instead of wheat with profit, starting the clover in the rye, and "hogging the rye," instead of harvesting it. The next year the volunteer rye and clover will give a wonderful amount of feed. This way the growth of two seasons is returned to the land. The stock farmer following any regular rotation, will find it very much to his advantage to have a permanent pasture equalling in area at least one-fourth of his cultivated land. If his cultivated land is rich, and gives abundant crops a larger part than one-fourth of his land will be found profitable as permanent pasture. Pastures properly managed give great returns for the labor expended and besides this, with a sufficient area of permanent pasture the stock need not be pastured on grain-growing or cultivated land. This will prevent the jury of these lands by tramping, and save much expense in the way of fencing. Another point is that the permanent pasture gives the farmer an opportunity to keep the stock off the cultivated land during wet weather if it is his wish to use his farming land a part of the time for pasture. The stock farmer is determining a rotation. The stock farmer in determining a rotation should grow such crops as he can best use as feed for his stock. If corn is grown and fed no better hay can be grown to balance the corn ration than clover. A corn ration can never be balanced with Timothy, and more than this, corn always does best after clover. Do not grow oats simply because they are a good feed. If they do not yield a profitable crop at market prices discard them, especially if they are an uncertain crop. Always in any rotation that may be used aim to give each crop the best possible opportunity. For instance, in the three year rotation, corn does best after clover and wheat can be more cheaply produced after the corn. The chances for best results would be lessened to grow two crops of corn after clover and for the clover to occupy the land two years after the sowing would be a disappointment. The point is, when each crop has had its best opportunity, do not follow it by itself.

WHEN TO CUT TREES FOR LUMBER.

With proper after treatment of the wood, the time of felling does not seem to affect its durability. Winter felling is generally preferable to summer felling because both fungi and insects are then inactive and the timber may be handled more at leisure, both in the woods and during shipment and conversion, and if worked up at once has a chance to season to quite an extent before warm weather awakens its many enemies. Where logging and milling are carried on in a large way and the log is cut into boards and these put through the dry kiln before the fungi and beetles have a chance to attack them, the product of summer felling is as good as that of any winter felled timber.

Where logging is done in a small way the cutting of timber in summer usually involves loss and commonly leads to inferior product. Peeling standing timber and allowing it to season on the stump is often recommended, but has never found favor in this country. Girdling timber to partially season it is done for cypress, but with indifferent success. To cut down trees and allow them to lie out before cutting into logs is often recommended, and it is claimed that this will lead to a complete removal of sap and stored reserve food, starch, and thereby increase durability. It is not practiced in this country.