

SCIENTIFIC AND USEFUL.

CARBOLIC ACID IN PASTE AND GLUE.—The effluvia from decomposing paste and glue is as unwholesome as it is offensive. If, when making the paste or glue, a small quantity of carbolic acid is added, it will keep sweet and free from offensive smells. A few drops added to mucilage or ink prevents mould. In whitewashing the cellar and dairy, if an ounce of carbolic acid is added to each gallon of wash, it will prevent mould, and also the disagreeable taints often perceived in meats and milk from damp apartments. Another great advantage in the use of carbolic acid in paste for wall paper and in whitewash is that it will drive away cockroaches and other insect pests. The cheapest and best form of carbolic acid is the crystals, which dissolve in water or liquify at an excess of temperature.

SOME THINGS WORTH KNOWING.—To make green blinds that are faded look like new, brush them over with linseed oil. Black ornaments may be mended with shellac. Smoking the joint renders it black. If the brass top of a paraffine lamp has come off, it may be repaired with plaster of Paris wet with a little water, and it will be as strong as ever. Tough meat may be made as tender as any by the addition of a little vinegar to the water when it is put on to boil. Fish may be scaled more easily if dipped for an instant in boiling water.

TOOTHACHE.—For ordinary nervous toothache, which is caused by the nervous system being out of order or by excessive fatigue, a very hot bath will soothe the nerves that sleep will naturally follow, and, upon getting up, the patient will feel very much refreshed, and the toothache will be a thing of the past. For what is known as "jumping" toothache, hot, dry flannel applied to the face and neck is very effective. For common toothache, which is caused by indigestion, or by strong, sweet acid, or anything very hot or cold in a decayed tooth, a little piece of cotton steeped in strong camphor or oil of cloves is the best remedy.

IRON PAINT.—A recent German invention, composed of pulverized iron and linseed varnish, is intended for covering damp walls, outer walls, and, in short, any place or vessel exposed to the action of open air and the weather. Should the article to be painted be exposed to frequent changes of temperature, linseed oil varnish and amber varnish are mixed with the paint intended for the first two coats, without the addition of any artificial drying medium. The first coat is applied rather thin, the second a little thicker, and the last in rather a fluid state. The paint is equally adapted as weather-proof coating for wood, stone and iron, nor is it necessary to previously free the latter from rust, grease, etc., a superficial cleaning being sufficient. This paint will prove a valuable auxiliary to manufacturers.

It ought to be generally known that a man's hat will serve in most cases as a temporary life preserver to those in danger of drowning. When a person finds himself in the water, he should lay hold of his hat between his hands, keeping the crown close under his chin and the mouth of the hat under water. The quantity of air contained in the cavity of the hat will keep the head above water for a long time—sometimes for several hours.

FIRE AND WATER-PROOF CEMENT.—A cement that is fire and water-proof is made of pulverized litharge five pounds, fine Paris white two pounds, yellow ochre four ounces, hemp, (cut into shreds) half-an ounce; all mixed, to the density of thick putty, with boiled linseed oil. This cement recipe was once sold for \$1000 cash, was lost, and the above is the result of an analysis of a sample.

TEST FOR WATERED MILK.—A German test for watered milk consists in dipping a well-polished knitting needle into a deep vessel of milk, and then immediately withdrawing it in an upright position. If the milk is pure, a drop of the fluid will hang to the needle; but the addition of even a small proportion of water will prevent the adhesion of the drop.

PRESERVING CHESTNUTS.—The chestnut is not strictly a fruit, but thousands of boys and girls like to eat it in late fall or winter, and many of them do not know how to preserve it so that it shall be pleasant eating in winter. Generally it soon becomes as hard and dry as marble, but this is unnecessary. When first gathered, put the nuts in a common bag—not a paper one—and expose them a few days to the sun and air on some roof, wood-pile, or fence. Stir them over occasionally, so that they do not sweat and mould. They will become a little wilted, and when this is the case uniformly, and they seem dry, hang them in the cellar—not in any chest or closet up-stairs—so that no mouse, squirrel, or cat can reach them. If properly cured when placed there they will remain sweet and soft all winter; if not cured, they will mould in the cellar, while above the cellar they will become too hard for anybody's teeth.

WARTS.—The simplest and most effective way of ridding the hands of these unsightly spots, is to chalk them over thoroughly twice or three times a day with ordinary white chalk, and let it remain until it wears off. This treatment, if persisted in, will cause the wart to dry up and crumble away.

Dr. Sydney Thompson suggests the following formula in erysipelas:—Fluid extract of jaborandi, twenty-four parts; laudanum and glycerine, each four parts. This mixture is to be painted over the affected surfaces every four hours.

The unpleasant odor left in the breath after eating onions is entirely removed by a cup of strong coffee.

AD CARISSIMAM MEAM.

(AFTER BURNS).

Fairest maiden by the river,
Once to me of hope the giver,
Why now frown upon me ever
Why thus fill my soul with woe?

When thou didst kindly on me smile,
Ah! how thou didst my heart beguile;
Thou purest joy was mine awhile—
Mere bliss did in my bosom glow.

O grant once more one boon to me
That heart-enthralling smile to see;
That for some space again I be—
The happiest mortal here below.

Hast thou not guessed I love thee dear?
I ever long to be thee near;
Yearn thee to guard from harm and fear—
Thru' fire and blood for thee I'd go!

That chilling frown I cannot bear—
Those wonted smiles, O let me share!
And by thy angel-self I swear
No love but thine this heart shall know.

SANDY.

Arichat, C. B., 1885.

[FOR THE CRITIC.]

CANADA'S MILITARY STATUS.

No. III.

For a few years back the Dominion Parliament has been voting in the neighborhood of a million a year to keep up its militia service. This year a million and a half has been placed in the estimates for the purpose. Yet, with all her expenditure and military pageantry, Canada has not a soldier on her militia roll who was thought competent to take command of the campaign recently closed in the west. General Middleton, who has been in the Dominion but a year, was placed at the head of the official bead roll. His right hand men were likewise Britons, as well as a score or more of those holding important posts in quelling the insurrection. Government patronage had assuredly something to do with the ignoring of native talent. Partisanship could not help coming to the surface when the distribution of so many political plums was in the hands of the ministry. But beneath this party nepotism lies a substratum of truth which rudely demolishes the edifice of Canadian ambition containing craving aspirations after military glory. If the militia system of the Dominion had developed any great soldiers, they would doubtless have been awarded a place in suppressing the rebellion fully commensurate with their abilities. But as the Canadian officers were out-ranked by their British comrades in arms, it is quite natural to infer, without prejudice or malice, that they were not equal to the emergency. There are those in Canada whose indignation at the placing of Englishmen over the heads of the Canadians cannot be assuaged, whom it is but charitable to suppose are blinded by colonial pride to the shortcomings of those with whom they sympathize. In reality it is with this as with everything else in Canada. If a position of real value is to be filled the incumbent must be brought from over the ocean. It is one of the vices of the colonial system, and will only die with colonialism itself.

A reasonable estimate of the actual strength of the militia of Canada would not place the number of troops above 25,000—the same strength as the standing army of the United States. This, it is true, is 12,000 less men than one would imagine to be available by a perusal of the departmental report. As before stated, however, no reliance can be placed on the official returns. They are misleading from cover to cover. More than 25,000 troops could not possibly be collected out of the existing enlistments, even by the most careful mustering. This force would be greatly increased by an enforcement of the militia law, which provides that the militia shall consist of all the male population of Canada, of the age of eighteen and upwards, and under sixty, not exempted or disqualified by law, and being British subjects by birth or naturalization, although all the male inhabitants capable of bearing arms may be required to serve in case of a *levee en masse*. The male population, so liable to serve, is divided into four classes, which are subject to conscription in the following order: First—those of the age of eighteen and upwards, but under thirty, who are unmarried or widowers without children; second—those of thirty and upwards, but under forty-five, also unmarried or widowers without children; third—those of eighteen and upwards, but under forty-five, married or widowers with children; while the fourth class embraces all those of the age of forty-five and upwards, but under sixty.

But in the field volunteers are apt to be of an unstable character. William Howard Russell goes so far as to assert, that in all human probability the South would have been struck to the ground at the first battle of Bull Run if the Pennsylvania volunteers had not presented the extraordinary spectacle of whole battalions under arms marching off the field, as their unfortunate General McDowell expressed it, "to the sound of the enemy's guns." The desertion at the same time, says Mr. Russell, of other volunteer battalions under the equally unfortunate General Patterson, in the Shenandoah Valley, left him unable to prevent the Confederate General Johnston, marching with all his men to the aid of Beauregard. Over and over again, he continues, the Federal leaders were paralyzed by similar defections, and it was not till they became strong enough to hold the volunteers by force, as Meade did before he made his attempt against Richmond, that the evil was cured. Had the Federals gained Bull Run they were ready to have marched on Richmond at once—they would have found the city defenceless and the South disorganized. The defeat, mainly caused by