

perfect imitations of ebony under the following treatment: Boil in a glass vessel, with water, 100 grains, 1 oz. of logwood chips, 1 oz. vitriol, and 1/2 oz. crystallized verdigris; filter while warm, and brush the wood with the hot solution a number of times. The wood, thus stained black, is then to be coated two or three times (being allowed to dry completely after each coating) with a solution of 1 oz. of pure iron filings in a quart of good wine vinegar. This is to be prepared hot, and allowed to cool before use.

EFFECT OF RUBBER TUBES ON ILLUMINATING GAS.—The results of recent investigations by Zulowsky show that a diminution of intensity of the light, perceptible without photometric aids, is produced by the passage of ordinary illuminating gas through rubber tubes only 14 feet long, and that this diminution is not due to mixture of air by diffusion, but entirely to the partial absorption of some, perhaps all, of the illuminating ingredients. Furthermore, since these absorbed ingredients are given up in a vacuum, and without doubt also gradually to the air, the effect of such tubes is independent of the time they may have been in use.

THE conjecture that the meteor showers which occurred so generally all over the earth on the 27th of November last, were due to the passage of our planet through a portion of Biela's comet, has been regarded with favor by some astronomers and denounced by others. The discovery of a comet in the Southern sky by Mr. Pogson, the Madras astronomer, on the 2d of December, was regarded as confirmatory of the supposition, as its place was that which Biela's comet would naturally occupy if the earth had just passed through it. Now, however, some persons deny that the comet which Mr. Pogson saw is really the lost comet of Biela, although its probable identity is maintained by Prof. Klinkerfues and by Prof. Oppolzer of Vienna.

ARTIFICIAL CLOUDS.—A few weeks ago we (English Mechanic) referred to an experiment about to be made at Surannes, on the possibility of preserving vines from the action of frost by artificial clouds. These experiments have taken place, before a large number of interested observers. In a vineyard of 20 hectares there were placed 360 iron vessels containing a heavy oil. All these fropots were lighted at once, and a thick black cloud was interposed between the vines and the sky. When the weather is calm and the sky clear (and it is in such circumstances that the frosts which so injure vines in spring mostly occur), this cloud continues all the time necessary to exercise its protective influence. The cost of the operation (including pots, oil, and labor) was estimated at about 5 francs per hectare, or 2 1/2 cents per acre; and all the vitiiculturists expressed themselves as struck with the advantages of this means of preservation.

FAMILY MATTERS.

SILVER CAKE.—Two cups of flour, one and one-half cups of sugar, one-half cup of sweet milk, one-half cup of butter, whites of four eggs, one scant teaspoonful of cream, of tartar, one-half scant teaspoonful of soda, and flavor with vanilla.

SINGLE ROOF, and indeed all wood-work, may be rendered less liable to take fire from falling cinders, &c., by coating it with a wash composed of lime salt, and fine sand or wood ashes. This compound also preserves the wood, and should be applied in the same manner as ordinary whitewash.

CALVES' FEET.—Germans have a very good way of cooking calves' feet, far superior to the simple paring and butter treatment. The feet are first boiled with a few herbs, salt, and vinegar, till they are tender; the bones are then taken out, the feet split, egged and bread-crumbed, and either fried or baked. Fried and served with sauce piquante they are excellent.

CLEANING TIN-WARE.—Acids should never be employed to clean tin-ware, because they attack the metal and remove it from the iron of which it forms a thin coat. Rub the articles first with rotten-stone and sweet oil, then finish with whitening and a piece of soft leather. Nothing else will give so good a polish.

To remove rust spots from cutlery, rub them with a common lead pencil and polish with paper or a cloth.

PRUNES A LA Russe.—Stew one pound of prunes with a little sugar and water till they are quite soft; take out the stones, crack them, and put back the kernels; then line the inside of a mould (first decorated with split almonds) with the prunes, and keep on pouring in a little jelly (a small breakfast-cupful of jelly or dissolved gelatine) to make the whole turn out. It may be made in a mould with a hole, which should be filled with whipped cream.

THE BEST WAY TO BOIL CLOTHES.—Aunt Rhody Bacon has been making us a visit. She is an ancient maiden, and is as full of information as an egg is of meat. It happened that she passed through the kitchen as my washerwoman was preparing to boil her clothes in a kettle filled with boiling water, and she could not refrain from remonstrating with her upon the subject, thus: "If you boil the clothes in boiling water, they'll be yellor, as sure as you're a gal," cried aunt Rhody. "Gal and woman, I've washed clothes for nearly sixty years, an' I'm old enough ter know what's what in washin'." But them clothes

inter cold water, let 'em kum slowly ter a bile, and bile 'em 'wenty minutes, an' I'll venter ter say you'll thank me for tellin' on you ter do it. "An' jist let me tell yer another thing. When your clothes stick ter the lines in winter time, instead o' pulling at 'em, bend or lift 'em right where the clothespin was stuck, an' they'll kum off jist as easy, an' won't tear at all. I've seen good clothes, an' sheets, an' pillar-cases, turn inter stripes by bein' pulled off the line when a little stiff with frost. So aunt Rhody had her say to Mrs. Flanigan, who, I hope, will profit by her advice.—Daisy Eyebright.

HINTS TO FARMERS.

A LIVERY stable man in Connecticut, who keeps over 60 horses, is offering manure at \$3.00 a load, and with each load he gives a chromo worth \$5. So he says.

A WESTERN local association of farmers have resolved to see to it "that no railroad attorney, or one of doubtful temperance principles, is placed on the bench of this district."

J. R. HOLMES, of Manchester has just sold five trees on his land in Clinton County, Mich., for \$400. Four of the trees were black walnut and the other was a cherry. They were bought for the Detroit market, and the same man offered \$380 for eighteen walnut trees standing on the same land, being the price that Holmes paid for the eighty acres.

ENGLISH farmers are admonished by The World of Science that the best means of destroying the larva of the cockchafer, which is so injurious to the roots of grass and wheat, is by deep plowing and encouraging the rooks to follow the plow and pick up the grubs. This is a reasonable hint for us to refrain from killing or interfering with the crow blackbirds or the crows, birds which eagerly search and devour all sorts of injurious grubs, and notwithstanding their sable color are not so black as they are painted.

VARIETIES OF POTATOES.—Notwithstanding the new varieties introduced within a few years we have not succeeded in supplanting the old Peach Blow with a better kind. Yet it has several faults, chief of which is the late period of ripening to dig it. It is almost impossible to get it into market time enough for shipment in the Fall. We want very much a potato which will keep as well as the Peach Blow, look as well, be as fine flavored, yet ripen from two weeks to a month earlier. The Harrison is abandoned; the Peerless grows large and hollow; is a good kind to raise for feeding hogs, but no new variety promises remarkably well. The Early Rose leads as an early variety, but it does not quite fill the place of the Peach Blow.

ROUGH ON THE PATENT RIGHTS MEN.—The Nebraska Legislature has enacted that a note given for a patent right shall have the words "Given for a Patent Right" stamped across the face, and that the value of the note may be impaired if subsequent investigation shall show that value was not received. Further, if one wishes to sell a patent right in the State, he must get a certificate or permit, which he must show whenever he offers to sell. Failing in these and other things, he is subject to criminal prosecution, and, on conviction, may be fined \$500 or be imprisoned six months, or both, at the discretion of the court, and he is also liable for damages in a civil action. It is objected that this law is unconstitutional, and cannot stand, and that it will not be enforced; but it is to be hoped that it may exercise a salutary influence in keeping quindlers in check.

ERRORS IN GROUTING.—At least one person in three of those who plant trees in groups or belts for ornamental purposes commits errors in consequence of not taking "one long look ahead." Probably in many instances mistakes are made in consequence of the ignorance of the parties directing the planting of trees, as they judge of the future size from the specimens in hand, the largest being selected for centre of groups or background of belts. A few years, however, is only required to develop and show errors, and the tall, slim Arbor Vitæ or Irish Juniper of today is soon overtopped by the stocky Norway or Hemlock Spruce. Planting ornamental trees is a work requiring some forethought, and it is not altogether for the present immediate effect that it is done, but for time far distant, and one needs to have the future form, size, and general appearance of the trees in his mind's eye at the beginning, if he would avoid making blunders that never can be corrected. It requires a practical and intimate acquaintance with all the trees used in forming groups, not only as they appear in their native forest, as well as when cultivated, for some show the effects of culture differently than others.

GOLDEN GRAINS.

A FOOLISH friend is more troublesome than a who enemy.

A GRAND safeguard for doing right is to hate all that is wrong.

WHERE the mouth is sweet and the eyes intelligent, there is always the look of beauty, with a right heart.

Good sense should be the judge of both ancient and modern rules; everything that does not conform to it is false.

A HEART truly Christian is open, generous, and ever ready to make allowances for the infirmities and weaknesses of poor wo-worn humanity.

If young and old persons would spend half the money in making others happy which they spend in dress and useless luxury how much more real pleasure it would give them.

It is a mistake to expect to receive welcome, hospitality, words of cheer, and help over rugged and difficult passes of life, in return for selfishness, which cares for nothing in the world but itself.

TRUE LIFE.—The mere lapse of years is not life. To eat, drink, and sleep—to be exposed to darkness and light—to pace round in the mill of habit, and turn thought into an implement of trade—this is not life. Knowledge, truth, love, beauty, goodness, faith, alone can give vitality to the mechanism of existence.

SPEND WISELY.—Look most to your spending. No matter what comes in, if more goes out you will always be poor. The art is not in making money, but in keeping it; little expenses, like mice in a barn, when they are many, make great waste. Hair by hair heads get bald; straw by straw the thatch goes off the cottage, and drop by drop the rain comes into the chamber. A barrel is soon empty, if the tap leaks but a drop a minute.

TRUE PHILOSOPHY.—When I could not obtain large pleasures, I put together as many small ones as possible. Small pleasures lie about as thick as daisies; and for that very reason are neglected, trodden under foot, instead of being worn in our button-holes. We cannot afford to buy roses at Christmas, or camellias at any time; and so we couple buttercups with vulgarity, and things that grow in the hedge-side we let wither where they grow, for no other reason than that the king's highway is not a royal garden.

THE LESSON OF THE NEEDLE.—"How little notice is taken of you in the world?" said a pin to a needle. "You are always about your work, slipping in and out so softly, but never stopping to be praised. When a pretty dress is finished, who thinks of the needle that sewed it? Even the holes that you make are so small that they close up directly behind you." "I'm content to be useful," said the needle. "I do not ask to be praised. I do not remain in my work, it is true; but I leave behind me a thread which shows that my course has not been in vain." So let us pass through life, doing our duty as we go, remembered for some good work left behind when we ourselves have departed.

THE STRUGGLE WITH VANITY.—It is hard to resist the temptation to be drawn into the vortex of showy, fashionable life. To live simply, to keep within one's means, to hold indulgence within safe bounds, to be content with such pleasures as may be innocently enjoyed, to make friends of the plain and unpretending, is not easy. It demands a long discipline in patience and self-denial, but the discipline is of utmost value. The most sterling and gracious qualities spring from it—tranquility of mind, ease of conscience, peace of heart, temperance, sobriety, chastity, satisfaction with common joys, delight in humble pleasures, the taste for good books, the appreciation of good people, the uncomplaining and grateful temper, the moral integrity that is proof against corruption. In many cases the struggle with vanity is the providential way by which such qualities are gained.

BE SENSIBLE.—Do not be above your business. He who turns up his nose at his work quarrels with bread and butter. He is a poor smith who is afraid of his own sparks; there is some discomfort in all trades except chimney sweeping. If sailors give up going to sea because of wet; if bakers left off baking bread because it is hot work; if ploughmen would not plough because of cold and heat; if tailors could not make our clothes for fear of pricking their fingers, what a pass we would come to. Nonsense, my fine fellow, there's no shame about an honest calling; don't be afraid of soiling your hands, there's plenty of soap to be had.

You must not be afraid of work if you wish health and wealth. You cannot get honey if you are frightened at bees, nor plant corn if you are afraid of getting mud on your boot. When bars of iron melt under the south wind; when you can dig the fields with toothpick; blow ships along with fans; mature the crops with lavender water, and grow plum cake in flower pots, there will be fine times for dandle; but until the millennium comes we shall all have a deal to put up with.

HUMOROUS SCRAPS.

TRUE TO THE CORE.—A good apple. CHIFFONIERS.—Men who live by hook and by crook.

WHAT is that which never uses its teeth for eating purposes?—A comb.

A TRUE American is too proud to beg and too honest to steal. He gets trounced.

NEW READING OF AN OLD PROVERB.—Man proposes, and woman seldom refuses.

WHAT to do if you split your sides with laughter. Run till you get a stitch in them.

CLASSICAL AND COMMERCIAL.—When is a blundering schoolboy like a fraudulent shopkeeper? When he makes a false quantity.

WHAT would you do if you had some land that would not grow trees? Why, have it measured, and you would then have some poles and perches.

"KEPATOMEATATEHIN," was the note sent by a farmer to a school-teacher in the potato-digging season, to explain his boy's absence from school.

"WHAT'S THAT?" said a teacher, pointing to the letter X, to a little rugged urchin.—"Daddy's name."—"No, my boy."—"Yes, it is; I've seen him write it a good many times."

How to make one's self obnoxious—to walk down a crowded thoroughfare carrying a ladder on your shoulder, and to turn round every other minute to see if any one is looking at you.

A VERMONTIER chap who held a bronchial trochee in his mouth all night without producing any effect on his sore throat, was disgusted when he discovered that he had been chewing a tin button.

A MALICIOUS libel is going the rounds that vegetation is so scarce at Cape Cod that two mullein stalks and a whortleberry bush are called a grove. The truth is that unless there are three whortleberry bushes they never think of saying grove.

THE muddiest man in Camden is Smith. He wound up his clock regularly every night for fifteen years, and then discovered it was an eight-day clock. He muses on the work that he might have done in those wasted minutes, and his anger is dreadful.

OUR PUZZLER.

60. ENIGMA.

In the halls of the great, when the wine passeth round, On the rich laden tables, I am o'er to be found. (1) When the guests have all gone, and the night is far past, The slumbering inmates I shield from the blast. (2) I roam o'er the world, on land and on sea, And our proud, boasted navy would be nought without me. (3) I am flat, I am round, I'm square, I am bright, (4) Sometimes of no value, sometimes a rare sight. I'm a brook, flowing river, a nation's great pride. (5) Yet in books you will find me, the page, side by side. (6) Sometimes I'm so strong, a storm would but shake me, (7) But oftimes so weak you would easily break me. (8) Of many materials I'm made, 'twill be seen, Of iron, (9) brass, and copper, (10) and gold, too, I ween, (11) But not always these, as for lowlier use, I'm made of base clay, the potter's produce. (12) Go wherever you will, you'll find me employed, Closely kept as a treasure, yet often destroyed, I am useful to all, am employed every day, And you greatly would miss me if I were away. J. E. BOULTON.

61. DECAPITATIONS.

1 Complete, I'm a shrill exclamation, beheaded, I'm a rich substance, again, and I'm a quantity of paper; transposed, I'm a female quadruped; curtailed, I injure; transposed, I'm a male quadruped; beheaded and transposed, I'm a parental appellation; again curtailed, I'm a thousand. 2 Complete, I'm trade; beheaded, I'm a rude construction; again, and I'm a ship term; transposed, I'm plump; out away my centre, and I'm short for a measure; beheaded, and I'm an abbreviation of musical term. 3 Complete, I'm a number; beheaded, I signify the heart; again, and I'm a metal; transposed, and I'm found in fish; curtailed and transposed, I'm an adverb, and curtailed, I'm nothing. 4 Complete, I'm of great value, beheaded, I rank high in society; curtailed, I'm part of the human frame; transposed, I'm a portion of time; again, and I'm part of the verb to be. 5 My whole is to lacerate; beheaded, I'm a corner; beheaded and transposed, I'm a valley; curtailed and transposed, I'm a human limb; twice curtailed, and I'm fifty. A. L'ARKEIL.

62. ARITHMETICAL PUZZLE.

If you strike out the heart of Nun, And put a pig's therein, Then add an eagle's head for fun, A number will be seen.

ANSWERS.

57. CHARADES.—1, Bur-dock; 2, Cock-roach; 3, But-(ub)ton; 4, Bondage; 5, Log-wood; 6, Wave-ring.

58. SQUARE WORDS.— 1. MONTH 2. MISEN OPHRA INANT NKEYR SATAN TREAT ESATOT HARTS ENTS

59. DECAPITATIONS.—1, Frills, rills, lls, L; 2, Gown, own, now, no, on, O.