

Five pounds of water evaporated by a pound of coke in a locomotive engine, will exert a mechanical power sufficient to draw two tons weight on a railroad a distance of one mile in two minutes. Four horses in a stage-coach, on a common road, will draw the same weight the same distance in about eight minutes. Four tons of coke, worth twenty-five dollars, will evaporate water enough to carry, on a railway, a train of coaches weighing about eighty tons, and transporting two hundred and forty passengers with their luggage from Liverpool to Birmingham, and back again, a total distance of 150 miles, in four hours and a quarter each way. To transport the same number of passengers daily by stage-coaches on a common road between the same places, would require 20 coaches, and an establishment of 3800 horses, with which the journey in each direction would be performed in about twelve hours. A more striking illustration of the incalculable saving in time and money produced by steam, cannot be given."—*Dr. Lardner's Lectures.*

**THE CHARCOAL ROAD—SOMETHING NEW.**—The following statement from Joshua Hathaway, the Secretary of the Company, gives some interesting details about the charcoal road between Poplar creek and Pewaukee: The Madison, Watertown, and Milwaukee Plank Road Company have contracted for the construction of four miles of charcoal road in place of planking. The price for construction is \$1200 per mile, exclusive of sluice ways and deep grading, which is to be paid for in addition. The mode of construction is as follows: The wood taken from the track is cut into the longest possible cuts, being straight; the stumps reduced to the surface; the wood being piled lengthwise, 8 feet wide, 4 feet high, with slopes of 45 degrees, is covered with straw and earth from the ditches, is then charred; a quarter of a mile of which can be charred and quenched in 10 days. The earth cover is then raked open to the width of 16 feet, 2 feet thick in the centre and 1 foot in the margin; the burned earth at the sides is then to be raked into the shape, and the weather and use will complete the work. The company are confident that this charred portion will prove the best and most economical and durable portion of their road.—*Wisconsin Farmer.*

**PATENT HOOPS.**—A machine has lately been invented for making hoops, which bids fair to do away the necessity of growing hoop poles hereafter. Any tough, straight-grained timber will answer the purpose. It is first sawed into square strips, the width desired for the hoop; these strips are next turned round, like a hoe handle, and slit through the centre. Each stick thus makes two half-round hoops. They are then steamed and bent. Casks hooped with them, present an extra-neat appearance. The whole work is done by machinery. Just previous to setting them, it is necessary to wet them in cold water. A specimen of these hoops was exhibited at the late State Agricultural Show at Syracuse.

**VINEGAR FROM BEETS.**—It is stated that the juice of one bushel of sugar beets, will make from five to six gallons of vinegar, by washing, grating, expressing, and exposing two weeks to the air in the barrel, with a gauze-covered bung hole.

**TO PREPARE RENNIN.**—Take a gallon of blood-warm water to each rennet; soak, after stirring, for 24 hours; strain the liquor and let it settle, saturate with salt, and skim off the scum.

**LEMON PIES.**—In this year of scarcity of fruit, it may be desirable to know that a good pie can be made simply out of lemons and molasses. Press out the juice of a lemon into two teacups full of molasses, grate in the dried peel of another, cover a plate with a layer of crust, spread over some of the mixture, lay on a thin crust, spread another layer of the mixture, and over that lay a top crust; bake thoroughly, and you will have an excellent and wholesome pie. One lemon will make two pies.

**BEEF-TEA.**—Cut a pound of solid beef into very small slices, which put into a stew-pan with a small pat of butter, a clove, two button onions, and a salt-spoonful of salt; stir the meat round over the fire for a few minutes, until it produces a thin gravy; then add a quart of water, and let it simmer at the corner of the fire for a quarter of an hour, skimming off every particle of fat. When done, pass it through a sieve, which is much better than a cloth, as it does not injure the flavour. The same, if wanted plain, is done by merely omitting the vegetables, salt, and cloves; the butter cannot be objectionable, as it is taken out in skimming. Pearl barley, vermicelli, rice, &c., may be served in it, if required.—*Modern Housewife.*

**TO KEEP SILK.**—Silk articles should not be kept folded in white paper, as the chloride of lime used in bleaching the paper will probably impair the colour of the silk. Brown or blue paper is better; the yellowish smooth Indian paper is the best of all. Silk intended for dress should not be kept long in the house before it is made up, as lying in the folds will have a tendency to impair its durability by causing it to cut or split, particularly if the silk has been thickened by gum.

Thread lace veils are very easily cut; satin and velvet being soft are not easily cut, but dresses of velvet should not be laid by with any weight above them. If the nap of thin velvet is laid down, it is not possible to raise it up again. Hard silk should never be wrinkled, because the thread is easily broken in the crease, and it never can be rectified. The way to take wrinkles out of silk scarfs or hankerchiefs, is to moisten the surface evenly with a sponge and some weak glue, and then pin the silk with toilet pins around the selvages on a mattress or feather bed, taking pains to draw out the silk as tight as possible. When dry, the wrinkles will have disappeared. The reason of this is obvious to every person. It is a nice job to dress light coloured silk, and few should try it. Some silk articles may be moistened with weak glue or gum water, and the wrinkles ironed out by a hot flat-iron on the wrong side.—*Sci. Am.*

**DOING GOOD.**—How often do we sigh for opportunities for doing good, whilst we neglect the opening of Providence in little things which would lead to the accomplishment of most important usefulness! Dr. Johnson used to say, "He who waits to do a great deal of good at once, will never do any." Good is done by degrees. However small in proportion to benefits which follow individual attempts to do good, a great deal may be accomplished by perseverance, even in the midst of discouragements and disappointments.—*Channing.*

**TO KEEP MOTHS FROM WOOLEN CLOTHING, CARPETS, AND FURS.**—Place the articles in linen sheets, or bags, sewed closely together, first beating them; so as to clear of all moths and eggs. Camphor or tobacco scattered through light trunks, where they are packed is also a protection.