

a third maker sells a case of fifty boxes, each containing 100 lucifers, for four pence. The imports of matches into the United Kingdom are of the value of £60,000 yearly, representing the enormous number of 200,000,000 daily. The daily consumption is 50,000,000 more than the above number, or upwards of eight matches each day for every individual in the kingdom.

How to Pack Fruit.

The following is the method of packing fruit and flowers employed by Mr. Kidd, the gardener of the Marquis of Breadalbane, in England. He says:—"A box is chosen in size, according to the quantity to be sent. A layer of dry bran is put at the bottom; then each bunch of grapes is held over the centre of a sheet of soft paper; the four corners of the paper are brought up to the stalk and nicely secured; then laid on its side in the box, and so on, until the first layer is finished. Then fill the whole over with bran, and give the box a gentle shake as you proceed. Begin the second layer as the first, and so on till the box is completed. Thus, with neat hands, the bloom is preserved, and may be sent to any distance; but, with clumsy hands, quite the contrary, and often an entire failure, as the putting in and taking out of the box are the most important points to be observed."

He has pursued this system of packing fruit for twenty years, and it was sent five hundred miles by inland carriage from England to the highlands. He has invariably packed sixty or eighty bunches of grapes and fifty or sixty dozen of peaches or apricots in one box, and they arrived as safe and fresh as when taken from the trees.

To Remove Clinkers from Stoves.

Some kinds of coal are liable to form clinkers which adhere to the fire-brick lining of stoves, grates and furnaces, and become a source of great annoyance, as they cannot be removed by usual means without breaking the fire-brick. Persons who are thus annoyed will be glad to know that by putting a few oyster shells in the fire close to the clinkers, the latter will become so loose as to be readily removed without breaking the lining.

Monster Photographic Lens.

Perhaps the largest lens in the world has just been completed by Mr. Dallmeyer for the government establishment at South Kensington. It is a triple achromatic combination of sixty inches focal length, for the production of pictures three feet square. It consists of three combinations, the front and back being six and eight inches diameter respectively, whilst the diameter of the central or negative combination is four inches in diameter.—*London Review.*

Auriferous Rocks of Victoria.

The area of the quartz-bearing rocks at Victoria, in Australia, is estimated at 25,000 square miles. The total area of the extent of land at present mined upon in that colony is 561 square miles. Thus 89,920 square acres, have produced gold to the amount of £92,787,236, on an average of about £1,032 per acre, and there yet remains upwards of 15,000,000 acres almost every where intersected by quartz veins of greater or less thickness, which are as yet intact by the pick of the miner.

Light.

"Light, or rather the absence of it, can hardly be said to determine, in any important degree, the distribution and limitation of the lower forms of animal life. Light is not essential even in the case of some of the higher orders. A large class of creatures, both terrestrial and marine, possess no true organs of vision, although there is good reason for believing that they do possess some special sensory apparatus susceptible to the influence of light; whilst certain creatures, whose habitation is in subterranean caves or lakes, as in the Magdalena near Adelsburg, and the Great Mammoth caves in Kentucky, either possess no organs of vision or possess them in so rudimentary a state, as to prove clearly that the absence or imperfect development of the sense may be compensated for by the higher development of other senses. It is impossible at present to say to what depth light penetrates in the sea. The photographic art will, no doubt, one day solve the problem. But it is almost certain that a limit is attained, and that, moreover, long before the deep recesses gaged by the sounding machines are reached, where the light-giving portion of the ray cannot penetrate even in its most attenuated condition; and yet, as shall hereafter be shown, creatures have been found down in those profound and dark abysses whose coloring is as delicate and varied as if they had passed their existence under the bright influence of a summer sun."—*Wallech, British Association.*

Foreign Inventions.

Permanent Aniline Colors.—R. H. Gratrix, England, has applied for a patent for rendering printed and dyed aniline colors permanent. The cloth is first prepared with stannate of soda, then passed through a thickened solution of tannin, after which it is either printed or dyed with the aniline color (magenta, solferino, mauve, &c.), then subjected to the action of steam. Aniline colors have not yet been rendered permanent, so far as it relates to the action of sunlight upon them. They change rapidly under solar influence, but can be washed without fading.

Dressing Flax.—In the dressing of flax and other similar fibres, it has been customary to employ drums armed with teeth set at right angles to the surface of each revolving drum. A patent has been obtained by A. Smith, London, for setting the teeth on such drums pointing in a reverse direction to that in which the cylinder is driven. By thus setting the teeth of such drums at a reverse angle to those in common use, the fibres, it is stated, are not so much injured, therefore less tow is made and more good fibre secured. In combination with the drum, Mr. Smith uses an apron, hinged at the bottom end of the case. This apron is hollowed out on the inside and armed with brushes, so that the attendant can feed the flax in a superior manner to the action of the revolving machine.

To Clean Paint.—Smear a piece of flannel in common whiting, mixed to the consistency of common paste, in warm water. Rub the surface to be cleaned quite briskly, and wash off with pure cold water. Grease spots will, in this way, be almost instantly removed, as well as other filth, and the paint will retain its brilliancy and beauty unimpaired.

Silvering Glass.—J. Cimeg, patentee. A solution of ammonia, nitrate of silver and tartrate of soda is applied to the surface of the glass, when the metal is soon deposited in a bright film at the ordinary temperature of the atmosphere. This is considered to be, perhaps, the most simple method of depositing silver on glass yet discovered. Other modes require the application of high heat to produce the deposition of the metal from a nitrate solution.—*Scientific American.*