

A WHITE-FLOWERED BRAMBLE.

Though rarely seen in gardens, this is one of the most striking of all early flowering shrubs; it was originally discovered in 1822 by Dr. James, who found it on the Rocky Mountains, where it grows at considerable elevations. The plant was brought into cultivation, says a correspondent of the *English Garden*, in Great Britain, by Mr. Anderson-Henry, of Hay Lodge, Edinburgh, who raised it from North American seeds, the produce of which first bloomed in May, 1870. Our illustration was prepared from a bush of it 4 feet high, in the Royal Botanic Gardens, Regent's Park, London, where we saw it bearing numerous large white flowers among serrated trilobate leaves. Its single roselike blossoms are succeeded by reddish purple blackberry-looking fruits, which have an agreeable flavor. The plant is perfectly hardy, and is well worth a place in every choice collection of flowering shrubs; its proper position, however, is unquestionably on the outskirts of plantations or in the wild garden. Like nearly all other species of *rubus*, it may be readily increased by means of root cuttings.

True Economy of Life.

The true economy of human life looks at ends rather than incidents, and adjusts expenditures to a moral scale of values. De Quincey pictures a woman sailing over the water, awakening out of sleep to find her necklace untied and one end hanging over the stream, while pearl after pearl drops from the string beyond her reach; while she clutches at one just falling, another drops beyond recovery. Our days drop one after another by our carelessness, like pearls from a string, as we sail the sea of life. Prudence requires a wise husbanding of time to see that none of these golden coins are spent for nothing. The waste of time is a more serious loss than the extravagances against which there is such loud acclaim.

There are thousands who do nothing but lounge and carouse from morning till midnight—drones in the human hive, who consume and waste the honey that honest workers wear themselves out in making, and insult the day by their dissipation and debauch. There are ten thousand idle, frivolous creatures who do nothing but consume, and waste, and wear what honest hands accumulate, and entice others to live as useless and worthless lives as they do. Were every man and woman honest toilers, all would have an abundance of everything, and half of every day for recreation and culture. The expenditure of a few dollars in matters of taste is a small matter in comparison with the wasting of months and years by thousands who have every advantage society can offer, and exact every privilege it affords as a right.—*Philadelphia Commercial List.*

THE COCA PLANT.

The habit of chewing the leaves of the coca plant, common among the natives of many parts of South America, has recently been commented on by many medical authorities; and we present herewith an engraving of a branch of the plant, taken from a specimen in flower of the Royal Botanical Gardens, Kew, England. The use of the leaves of this plant as a masticatory is of great antiquity in Peru; indeed, it is said to have originated with the Incas, and at the present time is common through New Grenada, Quito, and Peru, and also on the banks of the Rio Negro. The South American Indians always carry with them a little bag of the dried leaves, and a gourd containing finely powdered lime, which is mixed with the leaf before chewing. Used in moderation, coca is said to pleasantly excite the imagination, and it also powerfully stimulates the nervous system. In illustration of this, Dr. Spruce remarks that an Indian, with a supply of his favorite coca leaf, will travel two or three days without food and without showing any desire for sleep. Among recent contributions to the history and effects of this plant, we may allude to a paper read before the April meeting of the Edinburgh Botanical Society, from which it appears that without doubt the leaves of the coca, when rightly prepared and used discreetly, possess the effects ascribed to them by all travelers in Peru since Pöppig was there in 1827, but that their effects are not always precisely the same on different individuals. From experiments conducted by Sir R. Christison, the author of the paper above cited, and those of fourteen other gentlemen who undertook to try the plant at his request, the following conclusions have been arrived at: (1) That, taken in quantities of two drachms by healthy persons, it has no injurious, unpleasant, or suspicious effect whatever; (2) that in a very few cases this dose, of an inferior sample, had no effect at all; (3) that in by much the greater number of instances, and with a fine sample in every case, extreme fatigue was removed and prevented from returning, and that no doubt can exist that, in such persons, its restorative and preventive powers will render protracted exercise easy, without any subsequent harm, so far as the restorative is concerned; (4) that it does not in the end impair the appetite or digestion, although hunger, even after long fasting, is taken away for an hour or two; (5) that the use of it probably does not agree with more than a very moderate use of alcoholic stimulants. At the same time the

paper avoided all reference to the possible medicinal uses of this plant. Similar conclusions have also been arrived at by Professor Bouchardat, of Paris, who considers that its services in therapeutics have been most valuable, almost equal to those of cinchona, and that as a nervous and muscular stimulant it ranks with tea and coffee. On the other hand, evidence is not wanting to show that its effects (like those of tobacco, opium, hemp resin, gunjah or bhong, alcohol, and other vegetable stimulants) are certainly highly injurious when used habitually or in excess. A confirmed *conquero*, as an habitual chewer is termed, is said to be invariably known by his haggard look, gloomy and solitary habit,



RUBUS DELICIOSUS.

listless inability, and disinclination for any active employment. Its use is regarded by Europeans as befitting only the Indians; nevertheless, many whites are addicted to it. Dr. Weddell, who inquired very carefully into its effects on the constitution, states, as the result of his observation, the opinion that its habitual use acts on Europeans more prejudicially than on the Indians accustomed to it from early years; and in some cases is attributed to its abuse a peculiar aberration of intellect, characterized by hallucinations.

Dr. Mantegazza, says the *English Garden*, fully confirms the statements of Pöppig, and carefully describes its effects, stating the result of intemperance in its use to be frequently confirmed idiocy. The principle to which the effects of the coca leaf is due has been named cocaine; but much re-

rica and the West Indies, but others are found in Madagascar and the Mauritius. In nearly all the species a distinct pale band runs up the center of the back of the leaf, as shown in our engraving; indeed, in some descriptions of the leaf of the coca plant, we find it stated that two veins, in addition to the mid-rib, run parallel to the margin.

The leaves of this plant are used to make an infusion, as few as four or five leaves making drink enough for six persons. The coca is not to be confounded with the *cacao*, of the genus *theobroma*, which furnishes the nuts from which cocoa, chocolate, and the shells used for infusion are made.

Curiosities of the British Patent System.

A writer in *Chambers' Journal* has been examining into the history of the British Patent Office; and he describes many curious grants in the early history of the office. Among other facts, the writer states that there are four thousand applications for patents every year; and that the office receives the snug sum of \$750,000 a year in fees and stamps.

The first patents, issued in the time of James I, were more in the nature of monopolies or privileges, for which a consideration was paid to shrewd Jamie himself. The very first patent of all was an exclusive privilege for drawing, engraving, and publishing maps of London, Westminster, Windsor, Bristol, Norwich, Canterbury, Bath, Oxford, and Cambridge. The next was for the privilege of publishing portraits of His Sacred Majesty. The third was for an unexplained group of wonderful inventions, for plowing land without horses or oxen, making barren land fertile, raising water, and constructing boats for swift movement on water.

Many of the patents relating to clothing are singular either for their immediate objects or for the language in which they are

couched. One patent for breeches, at a date when trousers had not yet come much into use, described a mode of cutting out and making "to do away with all the inconveniences hitherto complained of"—by the aid of elastic springs, morocco elastic supporters, straps, buckles, etc. Another "protects trousers from mud," by means of a shield attached to the hinder part of the boot heel, which shield receives the splashed mud. Martha Gibbons, early in the present century, patented "a certain new stay for women and others, called the '*Je ne sais quoi*' stay which may be padded in any part when required for persons to whom Nature had not been favorable"—probably a euphuism for "flat figures." George Holland patented a mode of "making false or dummy calves in stockings." A famous *modiste* has an improvement in ladies' dresses, "rendering the same body capable of adapting itself to fit different figures." For those "who cannot bear a ligature round the leg," a patentee has a garter made of steel springs, connected with a silver plate placed in the waistband of the dress. One patent tells of a machine for brushing trousers: a frame work supports a spindle which carries a set of concave brushes; a cylinder of wicker or cane is placed inside the trousers to keep them distended; and the spindle is set rotating by an endless band acting on a beveled pulley.

The searchers after a machine for producing perpetual motion—that dreamy fallacy of the middle ages—have not failed to make their appearance in the patent world. In 1859 two Germans, Krause and Rotman, residing at Milwaukee in the United States, sent a letter to "Her Majesty the Queen Victoria, Patent Office, London." Her Majesty most likely did not read it, but the Patent Office folks did. It ran thus: "Your Majesty, we humbly advertise that we find out the perpetual motion, a machine very singular in its construction, but the same time very important by the power it gives. We intend to secure ourselves the patent right for the United States; and as we are informed your Majesty has secured a reward for the invention, we respectfully ask your Majesty if we may come to show our invention? To prevent mistake, we humbly beg not to believe any person without having the original patent of the United States, and the copy of this letter."

From the cradle to the grave, says the writer, patentees take care of us in some way or other. Even Dolly is attended to. One patent among many tells us that "dolls hitherto made have never been so constructed as to allow of their being placed in a sitting posture, with the legs bending at and hanging down from the knees", and announces that this important desideratum has now at length been secured. Another inventor "gives a rocking motion to dolls' cradles" by an elaborate array of clockwork, eccentric wheel, winch, and connecting rod. One of the early patentees had "a hydraulike, which being placed by a bed-side, causeth sweete sleepe to those which either by hott feavers or otherwise cannot take rest." A patent medicinal powder, compounded of tobacco and herbs, was so meritorious that "if one teaspoonful be struck for a dose up the nose as snuff, will cure various disorders of the hypochondriac and melancholy kind." Eighty years ago many persons believed in a patented mode of curing numberless aches and pains "by drawing over the parts affected various pointed metals, which from the affinity they have with the offending matters, or for some other cause,



ERYTHROXYLON COCA.

Leaf (natural size), single flower, and ovary enlarged.

mains yet to be done before we can speak with any precision as to the properties and uses of this comparatively modern introduction to the pharmacopeia. The plant is easily cultivated in an ordinary plant stove in a compost of fresh fibrous loam, leaf mold, and sand; when growing it requires copious supplies of water at the root, and frequent syringings with tepid water keep down insect pests. Cuttings of both stem and root may be employed for purposes of propagation. There are about seventy other species of *erythroxylon*, some of which have stimulating qualities, while others furnish a tonic bark somewhat resembling that of cinchona. The bark of one species—*e. tuberosum*—supplies a reddish dye. The majority of the species are natives of South Ame-