

on for four or five days when the worms become torpid and moult. During the larval existence of some 30 days there are four moultings. All this time the worms need very little care. They live and thrive on heaps of excreta and dead leaves, and only need to have the trays covered with a piece of cloth to protect them from their enemy, the blue-bottle fly. After the fourth moult they become "ripe," that is assume a pinkish hue. They are then picked out by the hand and thrown in heaps on to a small tray in which they are conveyed to the cocooning tray, some 3 or 4 feet in diameter, within which a long ribbon of plaited bamboo, a couple of inches wide, is wound round and round, with its edges on the flat of the tray. The worms are scattered over the cocooning tray, and here they gradually find their way between the bamboo rolls, and spin. The cocoons are generally yellow, some few are pure white, and are completed in 24 hours.

Reeling is performed in the following manner:—In two or three days those cocoons from which the best silk is to be reeled are taken out and placed in a pot (the family cooking pot) of water, which is allowed to simmer over a slow fire. Above the pot is placed a pair of cross sticks from which a bamboo reel is suspended, and beside the pot is a wooden cylinder turning on a trestle. Some filaments of silk are caught and drawn out of the pot, run over the bamboo reel and fastened to the cylinder. Then the reeler, generally a woman with an iron fork in one hand and the handle of the cylinder in the other, keeps catching up the filaments in the pot with the fork and reeling them on to the cylinder. The thread is coarse and dirty. The silk in the pot being exhausted, the denuded grubs are taken out and fried in oil to be eaten. A coarse silk is reeled off cocoons which have been allowed to come to maturity, after the escape of the moth. These moths emerge in about eight days. The cycle of the Burman silk worm's existence then may be put down thus: Egg, 8 days, or 11 in cold weather; worm, 30 days; cocoon, 8 days; moth, 1 day; total 47 days.

The chief merit of the Burman silk worm is its extreme hardiness; but the coarseness of the fibre is against its exportation, although it answers very well for the heavy manufactures of local looms. There certainly is much room for improvement in the rearing of the worm as well as in the reeling of the fibre. Some Indian seed, kindly sent us by Mr. A. Blechynden, of the Agri-Horticultural Society of India, for experiment here, did remarkably well, producing cocoons, white and yellow, of double the size of the cocoons procured for us from Prome. The quality of the fibre, too, was very

much finer. There really is no reason why the silk industry should not be taken up with profit all over the Pegu division. The mulberry, on the leaves of which the worms feed, is easily propagated by means of cuttings, and does very well on alluvial plains. The Burmese have a belief that the silk produced on the hill-sides is superior to that from the plains; and perhaps hill silk will be always superior to the out-turn of predial cultivation, but certainly the fibre of the plains can be very much improved. And if it is, why, a fine field for profit is always to be found in Europe, which cannot be supplied with too much silk.

The *North American Review* for December is specially noteworthy for the timeliness of every one of the articles which it contains. The Hon. George S. Boutwell considers the causes which indispose young men of culture and ability to take an active part in the conduct of political affairs. These causes are manifold, among them being the very strong inducements offered in a new country by various other pursuits, the evil repute which has come upon political and official life from the misdeeds of tricksters and office-holders, and so on. Nevertheless, Mr. Boutwell contends that in no sphere of life is there opportunity for a larger or more enduring influence than in politics or government, and that consequently there can be no more praiseworthy ambition for the capable young man than that which aims at distinction through political service. An irreverent author contributes an essay on "The Religion of To-day." This writer, after surveying the intellectual attitude of our age toward the ancient dogmas of Christianity, and showing the progressive elimination of tenets heretofore reckoned among the essentials of religious belief, contends that there will still remain a faith that the throne of the moral universe will stand unshaken before all discussion. Prof. Bonamy Price raises the question, "Is Political Economy a Science?" He accepts as an adequate and accurate definition of Science "the filtration of causes through common observation to things beyond," and then declares that Political Economy is not a science, but only a body of systematic knowledge. Dr. George M. Beard compares the *physique* of Englishmen and Americans, and corrects many erroneous opinions on that subject which have obtained currency on both sides of the Atlantic. Mr. Cuthbert Mills, in the first of a series of papers on "The Permanence of Political Forces," breaks ground for a very instructive philosophico-historical inquiry touching the political status of the United States. The book reviews are by John R. G. Hassard.

"CIRENCESTER," the Agricultural College of England, has a great capacity for posing itself before the public in original attitudes. First we had the doings of its early students, fellows, it was said, who were sent there because they were too wild for Oxford or Cambridge. Then came the crisis, when the Professors took up their hats and left the Principal alone in his glory. More recently Professor Church, after long and faithful service as chemist, ventured to cultivate the affections of an estimable young lady, but the authorities object to married men as Professors, and he had either to resign his post or his intended wife. He resigned the post, and walked forth from under the grimy old rafters of that laboratory (originally a barn) a wiser and a happier man. Now we read in the papers that 21 students have been fined 50 guineas at the petty sessions, for burning a turn-pike gate on the road between the College and the town, and breaking lamps. If the College authorities had allowed the petty sessions to put these young men inside a treadmill for a week, they would have had an opportunity of working off their wasteful exuberance of animal spirits; but instead of that they appear to have subjected them to a humbling process of mental depression, in order to moderate their physical activity, for we find an "appeal" made by the Rev. Vice-Principal on behalf of the penitent youths, an "admission" of their offences, and "on their behalf a most unqualified apology." They hang their heads, their fathers pay the fine of 50 guineas, and fellows in other Colleges who read the account ejaculate, Fools! why did they get caught; they will manage better next time.

THE tenant farmers of England and Scotland number about 600,000, and employ a capital of \$1,500,000,000, but are scarcely represented in the Imperial Parliament. There are 187 members sitting for English counties, only one of these is a *bona fide* tenant farmer. The object of the Farmers' Alliance in England is to form an association so strong, that, no matter what government might be in power, they would be compelled to listen to the requirements of the farming interests. At a recent meeting held in Edinburgh, some of the leading Scotch farmers spoke in its favor, resolutions were passed, and members joined.

THE English farmers, after a long season of rain, had at last a dry period for harvesting. The wheat crop is generally poor, showing in some cases a deficiency of 50 per cent. But the farmers are not discouraged, the fine dry autumn induced them to sow wheat largely again, trusting to a reduction of rents and better seasons.