

A NOVEL SYSTEM OF BRICK BURNING.

Quite a startling novelty in brick burning is reported from England and is said to be in successful operation. The kiln, in its construction, resembles a single tunnel, about 108 feet long, 8 feet wide, and 11 feet high to the crown of the arch. The bricks from the machines are carried on a belt to a strong iron wagon with a clay top, standing close to the machine, and when 50,000 have been set in position, it is taken to the inlet end of the kiln, which contains nine wagons, and as the load of green bricks is admitted at the inlet end, one is passed out at the other end ready for the purchaser. The fires operate from four small furnaces in each side of the kiln in the centre of the length, while those from the centre to the outlet end are cooling, and those from the centre to the inlet end, where a small chimney stands, are getting treated, and which in their turn are subjected to the direct action of the furnaces; four to six hours complete the burning operation. It is surprising, considering the small structure, the quantity that can be passed through, 15,000 to 20,000 per twenty-four hours, which are burnt at a cost of only 3d. per 1,000, and the time occupied in the passage of the bricks through the stages of drying, burning, and cooling does not exceed three days. The iron wagons do not suffer from the heat, cold air being circulated freely under the clay bottom, but is excluded from penetrating above it. The kiln is quickly erected, costing about \$2,500, including wagons and all appliances for working it. If used for temporary purposes, three-fourths of its cost is readily portable; in working, wheeling on barrows is avoided. There are no stacks to build and plaster, and the waste of bricks that are used for that purpose avoided; the bricks only being handled once in a green state very much preserves the quality, and about 20 per cent. of the labor used in brick making is avoided; and small orders for special shaped bricks can be supplied in three days.

CLOTHES-MOTHS, AND HOW TO GET RID OF THEM.

Professor C. V. Riley gives the following very interesting account of clothes-moths, and indicates the best method of killing them:

"The name clothes-moths is applied to several distinct but similar species of minute moths belonging to the family *Tineidae*, which, in their larval state, are very destructive to woolen goods, fur, skins, feathers, and similar substances. Among them may be mentioned the clothes-moth (*Tinea vestianella*), the carpet-moth (*T. tapetella*), the fur-moth (*T. pellionella*), and the hair-moth (*T. crinella*). These *Tineidae* have slender bodies and lanceolate, deeply-fringed wings that expend six-tenths or eight-tenths of an inch. The antennae and palp are short and thread-like, and there is a thick orange or brown tuft on the forehead. The colors range from buff to drab and dark-gray. The eggs are laid in May and June (the moth dying immediately afterward), and hatch out in fifteen days.

"The young worms at once proceed to work, gnawing the substances within their reach, and covering themselves with the fragments which they shape into hollow rolls and line with silk. These rolls are by some carried on their backs as they move along, and by others fastened to the substance they are feeding upon, and they are enlarged from time to time by additions to the open extremities, and by portions let into the sides, which are split open for this purpose. In such ambush the worms carry on their work of destruction through the summer; rest, in seeming torpor, during the winter; and change to chrysalids early in the spring. They transform again in twenty days, and issue from their shelter as winged moths, to fly about in the evening till they have paired and are ready to lay eggs.

"Then follows an invasion of dark closets, chests and drawers, edges of carpets, folds of curtains, and hanging garments, and the foundation of a new colony is swiftly laid. The early days of June should herald vigorous and exterminating warfare against these subtle pests. Closets, wardrobes, all receptacles for clothing, should be emptied and laid open, their contents thoroughly exposed to light and air, and well brushed and shaken before being replaced. In old houses much infested with moths, all cracks in floors, wainscots, shelves, or furniture should be brushed over with spirits of turpentine. Camphor or tobacco should be placed among all garments, furs, plumes, etc., when laid aside for the summer.

"To secure cloth linings of carriages from the attacks of moths, sponge them on both sides with a solution of corrosive sublimate of mercury in alcohol, made just strong enough not to leave a white mark on a black feather. Moths may be killed by fumigating the article containing them with tobacco or sulphur, or by putting it, if practicable, into an oven heated to about 150° Fahr."

The following United States Patents were granted to Canadians during the months of July and August last:

- R. Kirkpatrick, of Richmond, N.B., July 2, 1878, No. 205,559, "Weighing Device."
- R. D. Chatterton, of Cobourg, Ont., July 9, 1878, No. 205,838, "Car Coupling."
- W. Morrison, of Toronto, Ont., July 9, 1878, No. 205,756, "Chemical Fire Engine."
- W. H. Morrison, of Toronto, Ont., July 9, 1878, No. 205,891, "King Bolt."
- G. Bartlett, of Gananogue, Ont., July 23, 1878, No. 206,213, "Wheel Hub."
- G. R. Prowse, of Montreal, Que., July 23, 1878, No. 206,260, "Animal Poke."
- J. Haggas, of Uxbridge, Ont., July 30, 1878, No. 206,560, "Feeding Locomotive Tenders."
- J. W. Elliot, of Toronto, Ont., August 6, 1878, No. 206,769, "Fire Pot and Grate."
- J. Paradis, of Longueuil, Que., August 6, 1878, No. 206,747, "Manufacture of Shovels and Spades."
- G. R. Ingalls, of Abercorn, Que., August 6, 1878, No. 206,792, "Milk Coolers."
- J. Robertson, of Montreal, Que., August 6, 1878, No. 206,829, "Manufacture of Plumber's Traps."
- E. R. Whitney, of Magog, Que., August 6, 1878, No. 206,846, "Grain Binders."
- S. Coxon, of Toronto, Ont., August 13, 1878, No. 206,933, "Signal Lantern."
- E. Wassell, of Digby, N.S., August 20, 1878, No. 207,228, "Pier."
- J. S. Bogue, of Montreal, Que., August 27, 1878, No. 207,487, "Calculator."
- J. Stuttford, of Ottawa, Ont., August 27, 1878, No. 207,566, "Peg for Stringed Instruments."

NEW RULE IN TRADE MARK CASES.

Commissioner Paine of the Patent Office has lately adopted a new and very excellent rule in trade mark cases, which consists in dividing the payment of the government fees, so as to lessen the expense of applying for registrations.

The government charges for every trade registration are twenty-five dollars, and heretofore the rules of the Patent Office have required the payment of the whole amount in advance, before the examination of the case. If on the examination it was found that the proposed trade mark was old, or if for any other reason the case was rejected, then the applicant was obliged to lose the whole of the fee paid.

By the new rule now promulgated by Commissioner Paine, the applicant pays only ten dollars in advance. If the case is rejected he has no more to pay; but if registration is allowed he then pays the balance, fifteen dollars.

The new rule will promote public convenience and have the effect to increase the number of applications for registration. Full particulars how to apply for trade mark registration, expenses, etc., will be found in the "Scientific American Handbook," which may be had at this office by all who choose to send for it, free of charge.—*Scientific American*.

OBTAINING PATENTS.—The work required to prepare a patent case is trivial compared with the work often necessary to prosecute cases after once sent to the Patent Office. It is frequently the case that the drawings and papers can be prepared within an hour or two, but the subsequent work, in watching it through every stage in the Office, and in seeing justice done to your client, will make up for the ease with which the case is prepared. To secure strong, equitable claims is the duty of the honorable attorney, and not to push it through in the shortest time. One-half of the worthless patented claims to-day are the result of eagerness on the part of attorney or patentee to secure the patent. A claim can be worded so as to mean nothing at all, or to embrace a combination which conveys no security to the patentee. Such claims usually result where no other object is sought for on the part of the attorney but the patent—and his fees. It will pay to procure competent counsel and remunerate him accordingly.

[If the writer of the above had said that it is as much the fault of patentees themselves who resort to patent agents who, to obtain business, work on half fees, because their talent will not obtain for them sufficient patronage otherwise, he would have hit the mark exactly.—Ed. C. M. M.]