

the Rifle Volunteers, the drill-room and armoury are magnificent apartments, such as are seldom seen devoted to such a purpose.

A writer in a very useful work on the "Manufactures of Great Britain," asks somewhat triphantly, "What substitute could be found for leather? a substance at once durable and elastic, affording a protection from wet and from cold, capable of being formed into innumerable useful articles, and susceptible of a high degree of ornament, and supplying lining to our carriages and covers to our books." This book was published in 1848 under the direction of the "Committee of general literature and education," and now in 1862, we have a substitute answering all the requirements here specified.

As to protection from wet and cold, the whole American army is equipped in leather boots in the shape of capes, leggings, and knap-sacks, our upholsterers can vouch for its durability and elasticity. The useful articles into which it can be made, and the degree of ornamentation it can receive, are becoming every day more manifest. We line our railway, our street carriages, and our hats with it; and as to books, if they are not covered with it they ought to be. Truly our progress in art and science is defying all prediction as to what we may yet accomplish, and rendering absolute many of our familiar proverbs, and none more strikingly than that "there is nothing like leather."—*Scientific Magazine*.

THE DUST HEAPS OF LONDON—The contents of every dust bin in this vast London are carried away periodically. The dustman receives a small gratuity from each householder, and when he has collected a cart load, he demands another thing at the gate of the Paddington wharves: he deposits it within their precincts. A dust heap is very valuable to the contractor, and a single one is said to be worth four or five thousand pounds. It has to be sifted, sorted and stored off. We can give but a slight idea of its miscellaneous contents. Its chief constituents are cinders, mixed with bits of coal, and the carelessness and waste of thousands of housewives, which the scavengers pick out of the street to be sold forthwith. The largest and most valuable of the cinders also are selected for the use of landrasses and braziers, whose purpose they are better than coke. The far greater remainder is called breeze, because it is the portion left after the wind has blown the cinders off from it, through large upright iron sieves, and shaken elbow high by the women who attend the sieves. The breeze and ashes also are sent to the brick makers, the ashes are mixed with the clay of the bricks, and the breeze is used as a fuel to burn between their layers. But the heap likewise includes soft ware and hard ware. The former includes all vegetable and animal matter—all that will decompose.

All these are carried off to be employed as manure. State fish and dead cats come into this list—the skins of the latter being stripped off by the sifters, who can sell them for fourpence or sixpence, according to their colour, white being most in request. The "hardware" does not merely mean broken pottery, though of this there is great abundance. Part of the pottery is matched and mended by the women who find it, and becomes their perquisites; the rest, with the oyster shells, is sold to make new roads. But hardware in the dust heaps means rags, which go to the paper makers; bones, which go to the bone boilers; old iron, brass and lead, to salesmen of those metals; broken glass, to old glass shops; old carpets, old mattresses, old boxes, old pails, old baskets, broken tea-boards, cardsticks, fenders, old silk handkerchiefs, knives, and salt cellars, not forgetting old shoes, which go in baskets to the "translators," who turn old shoes into new; everything in short that the householder has thought "not worth mending," besides many a wasteful addition which the masters never knew, from mansions where recklessness and extravagance bear rule. Some of the contents are the sifters' perquisites—a certain amount of cinders, and as much paper and wood as they can carry, and corks of bottles, by which alone some boast they can find themselves in shoe leather: pill boxes also, and gillipots, are their lawful property. Jewelry, silver forks and spoons, and money, are occasionally found, and too often appropriated by the finder. One day a check for a considerable sum was discovered among the waste paper.

THE ROOK AND THE CATERPILLAR IN LUSS GLEN—A few weeks since a colony of caterpillars made an unwelcome lodgment in the beautiful oak copse in Luss Glen, the property of Sir James Colquhoun. In the course of a short time the trees, covering an aggregate space estimated at thirty acres, were completely stripped, and the trunks are now as bare of foliage as they are in the heart of winter. The hand of man was perfectly helpless against these pests, which marched forward, or rather which were eating their way onward, millions strong, and the utter destruction of this beautiful glen seemed only to be a question of time. At this stage a new adventurer appears on the scene; for it fortunately so happened that a wandering family of rooks flying over the glen, at once discovered that of which they were in quest—viz., rations in immeasurable abundance. They commenced an assault upon the caterpillars at once, and having dined most heartily, they generously departed to make proclamation to all the rook brotherhood of the land of Goshen upon which they had lighted. Although the nearest rookery is eight miles distant, an advanced guard set out from it without a moment's delay, and was immediately followed by the whole force of the