

one who cultivates land, is in itself any the less worthy of respect than that of one who buys and sells merchandise.

Prominent among the causes which tend to make successful merchandising difficult are: diminishing profits; the increase of store-expenses, especially in cities; and the inordinate growth of household disbursements occasioned by the luxurious tendencies of the present time. There is a growing disproportion, in this country at any rate, between the extent of a retail merchant's proper resources and the expenditure he permits himself or his family to indulge in. It cannot be denied that in dress, in house-building or furnishing, in indulging his children, young or old, in fashionable but useless habits and pernicious practices, many a struggling merchant wrecks his chances of success and buries himself and his future under a weight of empty finery and folly. It is painful to see a dealer who, by living over his retail shop, keeping his own books and practising in his household and in his business the economy plainly the duty of one with small capital and limited income, might make a comfortable living, launch out into theatre-going, club-frequenting, seaside-holidaying, dressing his children like French fashion plates, or sending them to the piano in the parlor instead of to the nursery or the kitchen.

It has attracted the attention of the *New York Times* that the failures for the first three months of the present year were nearly double, in number and amount, what they were in the like period of 1880. In seeking for the cause of failure, that journal concludes that "A principal cause of trouble, especially in retail trade, lies in the enormous rent demanded before a business has attained the volume which properly enables it to be paid. Few tradesmen in New York, comparatively, have to day much capital to fall back upon: because from 1878 to 1880 they were living upon it, and consequently most have nothing now but such savings as they can effect from day to day, and are, therefore, ill-prepared to meet the heavy increase of rent lately placed upon them." The pressure of rent is not so great in Canada as in the metropolis of the States, but still the proportion which rent bears to the turn-over of his business is a matter which should be carefully considered by any merchant. We have known a retail dealer whose annual sales did not exceed \$10,000 pay

\$650 rent, which was equal to nearly half the annual profit he could expect to make. Such an expenditure for rent is ruinous, being out of all proportion to a trader's requirements. There are many shop keepers in our cities and large towns who pay too much rent for the amount of business they do. When gas-bills, tax-bills, water rates, fuel, light, and clerk hire are added, and the total subtracted from the gross profit, the remainder does not often permit the dealer to indulge in hopes of heavy additions to capital. It is much more likely to make him "wish he were a boy again," behind the counter at six dollars a week.

The next point to be considered is the narrowing margin of profit. Such is the rush to get into business, and the rivalry which a multitude of competitors occasions, that wasteful and absurd methods are practiced by some unthinking dealers to attract trade. Goods which might just as well bring a profit of six to ten per cent. are sold for no profit at all, sometimes at a loss. We were ourselves witnesses the other day of a purchase of granulated gar for ten cents per pound at retail, when the wholesale quotation of that article was 10½ to 10¾ cents. It will be said "no one expects to make a profit on sugar," but even if that were necessarily true, the man who retails it a half cent. below the wholesale quotation by the barrel is foolish. Careful selection and close buying are characteristics of the prudent merchant. But of what avail are these if the buyer give away his profit? More sensible retailers, even, consider themselves forced by the folly of those inexperienced ones of whom we have spoken, to follow the bad lead, and sell goods under cost. We protest against such a doctrine. If a man have capital of his own he is, of course, at liberty to squander it in such a way as this (though very unlikely to do it). But if he have not, and only continues by the sufferance of his creditors, he has no right to deplete his estate and expend the money of his creditors in any such manner, and it would be wise to close his shop rather than permit such a demoralization of trade.—*Monetary Times*.

An iron steamship of 1,500 tons named the "Campana," has been bought in England and is to be placed on the Lake Superior route from Collingwood to Duluth. She sailed from London on June 27th for Montreal, it is of light draft, and generally adapted for lake traffic.

IRIDIUM.

John Holland, of Cincinnati, a leading manufacturer of gold pens and pencils, in a recent lecture before the Ohio Mechanics' Institute, described an important discovery, recently made by him, of a process for fusing and molding iridium, a metal hitherto regarded as not capable of being worked into bars, though Mr. Holland has long used it for making points for gold pens. The discovery consists of the addition of phosphorus to the metal when at a white heat. It is harder than steel, and nearly as hard as ruby. It has to be molded into convenient form, and then sawed or ground by rapidly revolving copper disks treated with emery and water. It is said to be the best substitute for the negative carbon in the electric light, a bar of it having burned sixty hours without loss of weight or change of form. It will not rust, and cannot be injured by acids. Iridium cannot be fashioned by hammering while hot, nor can it be filed. Great interest has been aroused by the practical discovery, and already many uses for the metal have been suggested, besides the electric lamp. It has been found to be superior to platinum in telegraph instruments. Prof. Dudley gives an interesting history of experiments by chemists and others with this metal, which is now undergoing elaborate examination at the Cincinnati University.

SCIENTIFIC AND OTHER NOTES.

MACHINES in a watch factory will cut screws with 589 threads to the inch—the finest used in a watch has 250. These threads are invisible to the naked eye, and it takes 144,000 of the screws to make a pound. A pound of them is worth six pounds of pure gold. Lay one upon a piece of white paper and it looks like a tiny steel filing.

The first coins of the United States were struck with the portrait of Martha Washington, Mr. Spencer, who cut the first die, copying her features in his medallion. When Gen. Washington saw the coins he was very wroth, and before any more were struck off the features of his wife were altered somewhat and a cap placed on the back of her head, this being the original of the present Goddess of Liberty.

A REMARKABLY skillful imitation of amber is now being manufactured in large quantities in Vienna. Its chief constituent is resin, obtained from the decomposition of turpentine. While possessing the electric qualities of real amber, it liquifies at a much lower temperature, and offers less resistance to the action of alcohol or ether. To complete the resemblance to true amber, the makers introduce insects and fragments of plants into specimens of the artificial product.