

the surface is not right, rinse in cold water, and repeat the heating and pickling as before. This removes the copper from the surface of the article, leaving pure silver on the surface. When sufficient, whitened, remove from the pickle, well rinse in pure hot water, and place in warm box sawdust.

TO RECOVER THE GOLD LOST IN COLORING—Dissolve a handful of sulphate of iron in boiling water, then add this to your "color" fluid, it precipitates the small particles of gold. Now draw off the fluid, being very careful not to disturb the auriferous sediment at the bottom. Then proceed to wash the sediment from all trace of acid with plenty of boiling water. It will require 3 or 4 separate washings, with sufficient time between each to allow the water to cool and the sediment to settle, before pouring the water off. Then dry in an iron vessel by the fire, and finally fuse.

MOLDING-SAND FOR BRASS OR IRON.—The various kinds of good molding-sand employed for casting iron or brass have been found to be almost uniform in chemical composition, varying in grain or the aggregate form only. It contains between 93 and 96 parts silica, or grains of sand, and from 4 to 6 parts clay, and a little oxide of iron, in each 100 parts. Molding sand which contains lime, magnesia, and other oxides of metals is unfit for use, particularly for the casting of iron or brass. Such sand is either too close, will not stand or retain its form, or will permit the metal to boil through its closeness.

CORRECT LENGTH OF LEVER, ETC.—It is quite frequently necessary to determine the correct length of the lever size of table roller size of the pallets and depth of the escapement of lever watches. A lever from the guard pin to the pallet staff should correspond in length with twice the diameter of the ruby pin table and if such a table is accidentally lost, its correct size may be known by measuring half the lever between the points above named. For correct size of pallet, the clear space between the pallets should correspond with the outside measure on the points of three teeth on the scape wheel. The only rule that can be given without the use of diagrams, for correct depth of the escapement, is to set it as close as it will bear, and still free itself perfectly, when in motion. This may be done by first placing the escapement into your depthing tool, and then setting it to the correct depth. Then by measuring the distance between the pivots of the lever staff and scape wheel, as now set, and the corresponding pivot holes in the watch, you determine correctly how much the depth of the escapement requires to be altered.

OTHER NOTES.

In spite of the so-called dull times, remittances from retail merchants are very satisfactory, and indicate that if they are not inclined to buy as freely as usual, they are at least paying as promptly. It is a good sign and speaks well for the business sagacity of the jewelry trade.

The American Society of Civil Engineers approves the plan of so dividing the time as to

mark the twenty-four hours of the day upon watches and clocks. It declares that the cost of the change in dials will be small, and the advantage of the change of great practical use in simplifying matters that are now complicated by "ante meridian" and "post meridian" computations.

The signer of a note given for a "future" in cotton has successfully resisted payment of it in the Georgia Supreme Court, under a statute declaring that all contracts and evidences of debt upon a gambling consideration are void *in the hands of any person*. The court held that cotton futures are gambling and nothing else. The opinion says emphatically, "Betting on the game of faro, brag or poker cannot be more hazardous, dangerous or uncertain. Indeed, it may be said that these animals are tame, gentle and submissive, compared to this monster. The law has caged them and driven them to their dens."

A scientific jeweler says that fine sensitive watches are particularly liable to be affected by electrical atmospheric disturbances. During the months of June, July and August, when these phenomena are most frequent there are more main-springs broken than during all the remaining months of the year. They break in a variety of ways, sometimes snapping into many pieces. It is also said that since the introduction of the electric light has become so general a large number of watches—some of them very fine ones—have been magnetized. While in this condition they are useless as time-keepers.

The telephone, like the telegraph, is contributing to new departments of law and legal practice. Under a law which makes it a misdemeanor to send false communications by telegraph or telephone line, an expelled member of the St. Louis, Mo., Hackmen's Association has been arrested, charged with having an order sent by telephone, causing sundry other members of the Association to send carriages on wild goose chases in different parts of the city. The case is the first of its kind, and considerable interest is taken in the result. The punishment for such false messages is a fine of not more than \$100, with a liability to a civil suit for damages.

One of the representatives of Messrs. Green-shields, Son & Co. writes to the *Monday Times* from Dublin, Ont., as follows:—

"Having been snow bound in this thriving village for a few days on my western trip, a novel device, and yet a nice, mild way to put it, as a reminder to customers who have not paid their accounts, may have been seen hanging in Jos. Kidd & Son's office: A large morocco purse hung on the wall, *open*, with a printed card at the mouth, inscribed, 'Our purse is empty.' I send you this item as a matter of news, and also as a good example for other merchants to follow."

The production of iron, in Great Britain, has been greatly overdone. From 13,320,000 tons, in 1876, to 21,100,000 tons in 1882, is the increase. The demand not having kept pace with production, the market is glutted. There is a shrinkage of price in the States, pigs went down

during the last year, from \$3 to \$4 and steel rails \$5 a ton. The fires of many rolling mills and steel works have ceased to burn. Failures in the iron trade in England are numerous, ten having taken place a few days previous to the 1st January. Neither Free Trade nor Protection can enable producers to gauge the demand every year; mistakes are made and not alone those who make them suffer, but also their connections and dependents.

If you are a merchant, study to please the person you expect will buy your goods. study the golden rule of square dealing. study system and study the price-lists of an independent mercantile paper. Of course success will not always attend every effort made. The location you have selected may not be one where a satisfactory business can be done. But one thing, says an exchange, may be depended on, viz.: "You cannot put your goods helter skelter on your shelves and counters, and then sit down and expect the dollars to roll into your money drawer, any more than a farmer can expect, after putting in his seed potatoes, to sit in his parlor and let them grow. They will not do their own ploughing and hoeing, and when ripe they will not jump into barrels and start for the market."

HISTORY OF A DIAMOND.

The largest diamond ever brought to this country has just been imported by a jewelry firm of Maiden Lane, New York. It is yet uncut, and has the yellowish hue common to all uncut diamonds. It may be reduced one-third by the cutting. It is impossible to estimate the value of the jewel until after it has been cut, when its color and full beauty will be revealed. It weighs 125 karats, and will probably be cut in Boston. Henry D. Morse, the great American diamond owner, says the big stone has a singular history. It was found in a diamond field in South Africa three or four years ago. The finder was one of a camp of diamond hunters in a dreary and remote district. When he accidentally stumbled on his great "find" he was overjoyed. Then a terrible fear took possession of him should his companion learn he had such a valuable stone in his possession. He endeavored to conceal his luck, but his actions betrayed him. He was murdered, and the man who murdered him met with a like fate. Before the stone reached this country it cost four lives. The last owner in dying gave it to a native, who sold it to a sea captain. In this way it reached America, and was purchased by its present owner.

A very important decision, which will affect jewelers, as well as all other merchants, was given at the Division Court sittings at Brighton, before Judge Benson, the peculiar case of Port vs. Pollock, creating much interest. About last November the defendant, a gallant young bachelor-farmer, living a few miles north, fell a victim to the charms of one of Warkworth's belles, and joined the noble army. In the exuberance of the honeymoon he called at plaintiffs jewelry establishment in Brighton, and chose a lady's gold watch and chain, valued at \$90. He asked the plaintiff to put them by until his wife could call in and see them. The jeweler put them away, but saw no more of his