



country but stayed here to face his creditors, is, they allege, proof positive that in his own estimation he had no intention whatever of defrauding them. As things at present stand, Ross' friends have made a conditional offer on his behalf of 30 cents on the dollar, which his creditors refuse, but whether it will yet be settled on that basis or not, remains to be seen.

**IS LUCK.**—Hamilton is apparently a dangerous place for a jewelry traveler to visit if the reports concerning the way their police treat strangers is true. It is not many months since that an inoffensive stranger who was just sane enough to stay in his own room and keep out of people's way, was shot dead because the police suspected him of being a criminal of some kind or other—what they didn't really know. The latest victim there is Mr. F. J. Woltz, jeweler, 41 Colborne Street, Toronto, who went to Hamilton, and while chatting to some friends in the Brunswick Hotel, the conversation turned on diamonds. Mr. Woltz immediately produced a few from his pocket and showed them to his friends. Detective Doyle happened to be present and thought he had discovered a burglar, and at once secured the assistance of P. C. Campaign, and together they dogged Woltz all over the city and finally took him into custody. He describes his arrest as follows:

"One of the officers accosted me and said: 'You have some jewelry with you.' I replied that I carried a few diamonds, but considered myself capable of carrying my own property.

"Let us see what you have," said one of the officers. I took out a case of diamonds from my pocket, and handed it to the men.

"This is very expensive; quite too much so for you to carry," said Campaign.

"Come with us to the station," said the other.

"I went with them to the station and telephoned to the chief. He told the officers to take me to the St. Nicholas Hotel and see if I could identify myself. This was soon done and I was released."

It is said that Mr. Woltz threatens a suit for false arrest, but in our opinion he is in such great luck in getting out of the clutches of the Hamilton police without getting a hole through him, that he should forgive them and cry quits.

## WORKSHOP NOTES.

**TO MAKE WATCH HANDS RED.**—Mix to a paste, over a lamp, one ounce of carmine, one ounce of chloride of silver, one half ounce of tinner's japan. Put some of the paste on the hands, and lay them, face upward on a sheet of copper, holding it over a spirit lamp until the desired color appears on them.

**TO TIME FRENCH PENDULUM CLOCKS.**—The escape wheel of French "pendules" make two revolutions per minute, so that the pendulum makes four times as many vibrations per minute as there are teeth in the escapement. A "pendule" may, therefore, be quickly brought to time by counting if the beats of the pendulum per minute equal four times the number of teeth in the escape wheel.

**TO REMOVE STAINS FROM WATCH DIALS.**—To remove black or cloudy stains from porcelain watch dials, which are generally caused by the tin boxes in which they are shipped, wet a piece of tissue paper in nitric acid and wipe the dial. This will instantly remove them. After applying the acid, the dials should be immediately washed thoroughly with water, then bedried in boxwood sawdust.

**TORSION PENDULUM.**—A pendulum in which the hole rotates by the twisting of the suspending rod or spring, is called a torsion pendulum, but it will not bear comparison with the vibrating pendulum for time keeping. They are only used when a long duration of the motion of the pendulum is required. Small clocks to go a year without winding are made with torsion pendulums about six inches long, which make fifteen excursions a minute. The time occupied in the excursion of such a pendulum depends on the power of the suspending rod to resist torsion, and the weight and distance from its centre of motion to the bob. In fact the action of the bob and suspending rod is very analogous to that of a balance and balance spring.

**TO CLEAN A DIAL.**—First dissolve one-half ounce of cyanide of potassium in hot water, to this add two ounces of strongest ammonia and one-half ounce of spirits of wine. Dip the dial for a few seconds and immediately immerse in warm water, brushing it lightly. This will soon show a clean dial, then rinse, and dry off in hot boxwood dust. Some use diluted nitric acid for cleaning dials, or hyposulphate of soda will do it if dissolved and mixed with ammonia; but with either of these the painted numbers go with the dirt, so only dials with gold numbers can be done with this process. We could give several recipes for dial cleaning, but the above is as simple and effective as anything we know.

## OTHER NOTES.

GALLILEO invented the first accurate thermometer, nearly 400 years ago.

MAHOAGANY in Mexico is becoming scarce, no longer growing within two or three hundred miles of the coast.

A CHARGE of 50 pounds of dynamite in a fish torpedo is enough to send the largest iron-clad to the bottom of the sea. A torpedo  $5\frac{1}{2}$  yards long, carrying a charge of 225 pounds of dynamite, goes at the rate of 35 miles per hour under water.

NERO, who was near-sighted, used an emerald, hollowed on both sides, through which to look at the games in the amphitheatres. This was doubtless the first approach to spectacles, since this invention does not date very far back.

EMERALDS are found principally in Peru and New Grenada. They are found in beautiful green crystals, implanted and produced in a kind of freestone of a whitish color, of the form and size of a roundish cobblestone, which is hollow inside.

ENGLAND used to export to Japan straw plaits for making hats and bonnets. At present the Japanese export the same article to England at a little over half the cost. As the Japanese are about to begin the manufacture of clocks and watches, a higher protective tariff may soon be in order.

IN regard to the use of cements, an expert in watch manufacture remarks: "To set wax in lathe: Trace a series of concentric circles on the face of the chuck with a graver point, after turning it true; this will increase the adhesion of the cement. The flame of a spirit lamp is held under the rotating chuck, when this is hot enough its surface is covered with a layer of shellac or sealing wax, and the object held against it.

THE coal beds of China are five times as extensive, as those of all Europe. Other mineral resources are immense, and gold, nitre, iron, petroleum, etc., exist in large quantities. Prejudice and ignorance have so far prevented these immense mineral resources to be turned to account, but the inroad which European customs are making will soon work a change and we may see in China developments, which will astonish the outside barbarians.

TWO persons belonging to a neighboring town being on a visit at Glasgow to see the lions went to the College among other places. On looking up to the clock dial they were astonished to observe only one hand, which was an hour behind. One of them, thinking that nothing could be wrong about the College, observed in a flippant, apologetic tone, "Hoot man, that's naething ova; 'od man, I've seen our town clock aught days wrang."

IT has been the custom of all former Presidents to entrust the newspapers with copies of their messages under a strict promise that nothing contained in them should be used until the proper time. Mr. Harrison, however, has written his message with a pen, and the discreet Miss Sanger will make the few necessary copies with her typewriter. Incidentally it may be remarked that the President has more confidence in a woman's ability to keep a secret than he has in a man's faithfulness to a promise.