

strong gales the maelstrom has been shown by official statistics to run at the rate of twenty-six miles an hour.

Among the most remarkable natural echoes are that of Eagle's Nest, on the banks of Killarney, in Ireland, which repeats a bugle call until it seems to be sounded from a hundred instruments, and that on the banks of the Naha, between Bingen and Coblenz, which repeats a sound seventeen times. The most remarkable artificial echo known is that of the Castle of Simonetta, about two miles from Milan. It is occasioned by the existence of two parallel walls of considerable length. It repeats the report of a pistol sixty times.

BUSINESS CHANGES FOR JULY.

W. H. Cooper, Emerson, Man., Hardware &c., stock sold at 45c. on the dollar to W. Beach. Potts & Co., Wardsville, Tins &c., burned out. D. H. Cunningham, Plattsville, watches, moved to Bothwell. Geo. B. Meadows, Barrie, stoves &c., assigned in trust. — Roberts, Regina, jewelry, store burglarized. J. & J. Pennington, Winnipeg, tinware, &c., left for parts unknown and stock sold by sheriff. Charles Paille, St. Jean Baptiste, jeweler, moved to St. Johns. N. Germain & Co., Winnipeg, hardware, offering compromise. L. Jacobson, Winnipeg, jewelry, giving up business. L. H. Noel, Montreal, jeweler, called meeting of creditors. R. J. Butler, Winnipeg, jewelry, &c., sheriff in possession.

BUSINESS NOTES.

COUNTERFEIT \$10 notes of the Ontario Bank are in circulation in Winnipeg.

The good people of Lindsay have experienced a new sensation; a few days ago many of the large stores and all the principal streets were lighted with gas for the first time.

The Western Assurance Company declares a dividend for the current half year at the rate of twelve per cent. per annum, and the British America one at ten per cent. per annum.

The old Toronto Mechanics' Institute, the year before it is handed over to the Free Library board received in rent \$598 in excess of the amount required to pay interest on its mortgage. It would seem, therefore that it was well worth accepting as a gift. Mr. Bain was chosen librarian, and Mr. Davy assistant.

A MEETING of the creditors of H. G. Levetus, wholesale jeweler, Montreal, was held last Tuesday, when the statement showed liabilities of about \$65,000, with assets of \$35,000 nominally. Mr. Levetus made an offer of 17½ cents cash, or 25 cents in 6, 12, and 18 months, but neither proposition was accepted, and the estate will likely be wound up. This man claimed a surplus of \$30,000 not many months ago.

We notice that the co-partnership that has existed for some years under the firm of Hagstoz & Thorpe, of Philadelphia, has been dissolved by the withdrawal of Mr. Hagstoz, and a new co-partnership has been formed with Mr. C. N. Thorpe, as general partner, Geo. W. Childs, special partner, while Messrs. E. C. Chappatte and H. L. Roberts have been admitted to an interest in the business. We wish the new firm every success.

ATTEMPTED BURGLARY.—A party of burglars made a determined to burglarize the premises of Messrs. E & A Gunther, corner of Jordan and Melinda streets, Toronto, last month, as well as their neighbor, Mr. Carter, 12 Jordan street. They entered the premises of the latter by prying away the bars of a window. Gaining the roof they proceeded to enter the adjoining warehouse by sawing open a square hole in the roof. They, however, did not enter, being deterred by fear or some other cogent reason. Several burglar's tools were found on the premises.

THE Troy pound, still used in this country for weighing the precious metals, is believed to have been deprived from the Roman weight of 5759.2 grains, the one hundred and twenty-fifth part of the large Alexandrian talent, this weight, like the Troy pound, having been divided by the Romans into 12 ounces. The earliest statute of this kingdom in which the Troy weight is named is the 2 Henry V., statute 2, chap. 4, but the Troy weight is universally allowed to have been in general use from the time of King Edward I. The most ancient system of weights in the Kingdom of England was the Moneyer's pound, or the money pound of the Anglo-Saxons, which was continued in use for some centuries after the Conquest, being then known as the "Tower pound," or sometimes the Goldsmith's pound. It contained 12 ounces of 450 grains each, or 5,400 grains, and this weight of silver was a pound sterling. The Tower pound was abolished in 1527 by a statute of Henry VIII., which first established Troy weight as the only legal weight for gold and silver, and from that time to the present our system of coinage has been based on the Troy weight, the Troy pound containing 5,760 grains.—*Nature*.

WORKSHOP NOTES.

TO REFINER GOLD.—If you desire to refine gold from the baser metals, swedge or roll it out very thin, then cut into narrow strips and curl up so as to prevent its lying flatly. Drop the pieces thus prepared into a vessel containing good nitric acid, in the proportion of acid, 2 ounces, and pure rain water, ½ ounce. Suffer to remain until thoroughly dissolved, which will be the case in from one-half to one hour. Then pour off the liquid carefully, and you will find the gold in the form of yellow powder, lying at the bottom of the vessel. Wash it with pure water until it ceases to have an acid taste, after which you may melt and cast into any form you choose. Gold treated in this manner may be relied on as perfectly pure.

ESSENCES FOR CLEANING WATCHES.—Essences for cleaning watches are rapidly coming into cus-

tom. They are to be obtained at any of the material dealers and at all drug stores. The object is immersed and left in them for a few minutes, to permit all adhering matter to dissolve, not too long, however, since several qualities are apt to leave stains. The piece is to be dried on removal, and finish by passing a fine brush over that has been charged with chalk and subsequently rubbed on a hard crust of bone. This will produce a brilliant surface on either gilding or brass. The following composition, the ingredients of which may be obtained in a drug store, has been highly recommended 90 weight parts of refined petroleum and 25 parts of sulphuric ether. The object is immersed for several minutes, in fact, they may remain for a longer period without danger, and on removal from the bath, are found to be clean and bright. It must not be forgotten that many of these essences are liable to ignite with the mere proximity of a lighted lamp.

TESTS FOR DIAMONDS.—Hydrofluoric acid will not affect the diamond, while it quickly corrodes glass, which is the material of most of the imitation gems. The only objection to its use is that it will attack certain stones of minor but real value, like the topaz, which are some times passed off as diamonds. Of course, being a dangerous agent to experiment with, it must be employed with great caution. The following directions may be safely followed: Take a leaden vessel, of saucer shape and moderate size, in which place pulverized fluor spar, which cover with enough oil of vitriol to completely moisten the powder. Then put in the stone to be tested, and gently warm the mixture over a gas lamp or any other convenient source of heat. This should be done in a good draught, where the vapors will be drawn up a chimney or dissipated, as they are dangerous to breathe. When the evolution of vapors appears to have ceased, which will occur in from five to fifteen minutes, according to the quantity of material employed, the heat should be withdrawn and the vessel allowed to cool. The stone may now be fished out from the paste mess and examined. If it shows no sign of being attacked, you may be assured that it is a genuine diamond. A paste stone will be found to be strongly corroded by the acid that has come in contact with it, and if it was a small one it will probably have been entirely dissolved.

SEPARATING SILVER.—The following simple method of separating silver out of alloys may be useful. It is described by Herr Gottheim: The silver-holding alloy or metals are dissolved in the least possible quantity of crude nitric acid. The solution is mixed with a strong excess of ammonia and filtered into a high cylinder, provided with a stopper. A bright strip of copper, long enough to project beyond the liquid, is next introduced, which quickly causes separation of pure metallic silver. The reduction is completed in a short time, and the reduced silver washed first with some ammoniacal solution and then with distilled water. The more ammoniacal and concentrated the solution, the more rapid the reduction. The strip of copper should not be too thin, as it is considerably attacked, and any little particles which might separate from a thin sheet would contaminate the silver. The operation is so