Minting Money

How the Metal is Transformed Into Bright Pieces of Money.

THE Director of the Mint, George E. Roberts, is probably about the best equipped man in the country for the purpose. He has three big money manufacturing plants in operation—at Philadelphia, at San Francisco, and at New Orleans, turning six hundred tons of silver into subsidiary coin. The Southern mint is working at its full capacity now on silver dollars alone.

From the ingot to the coin is a rapid journey at one of the mints. It begins in the "weighing room," where stands the pair of balances that receives all the metal brought in. The scales in the Philadelphia mint are said to be the largest and finest in the world. They have a capacity of 685 pounds, but exhibit instantly the variation of

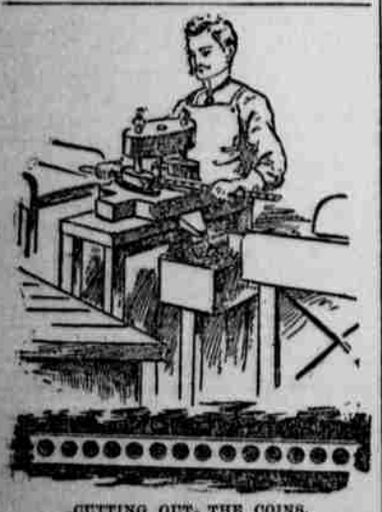
MILLING THE COIN.

one-hundredth of an ounce. The system of weighing and recording begun here is carried out with every transfer of the metal until it is delivered as coin to the cashier.

After leaving the weighing room the silver or gold, as the case may be, is sent to the melting room, where it is dumped into the huge plumbago crucibles. After melting, the coin material is cast into bars, and when cold a fragment is cut from each, which is sent to the assay office. The assayer ascertains the proportion of pure metal in the bar and amount of alloy needed to bring it to the required standard. The bars are again melted, the alloy doled in, and the metal then cools in bars about a foot in length, half an inch in thickness and regulated in width according to the size of the coin to be manufactured.

In the melting room for gold and in many other departments of the mints the floors are overlaid with hexagon latticed iron plates, through which fall the small particles of gold that adhere to the shoes of the operators. The sweepings of the floors are even saved and treated for the gold and silver dust. Director Roberts is authority for the statement that more than $20,000 is thus saved annually.

The rolling room next receives the metal, which is passed between powerful circular crushers at the rate of 200 bars an hour. The bars come out as ribbons the proper thickness for strips from which to cut the "planchets." These last named are coins in the plain before they receive the stamp or are milled. Before the planchets are cut, however, the ribbons pass through several presses to bring



CUTTING OUT THE COINS.

them to the proper hardness and to cause them to pass muster in the way of width and thickness to the breadth of a hair.

Then the planchets are cut the ... begins to look like coin. The ... pieces drop from this marvelous machine at the rate of 250 a minute, though when pressed a speed of 280 can be attained. The perforated strips go back to the crucibles, while the planchets go to the ... room. Here they are carefully ... who are wonderfully ... rejecting those that are under weight. The perfect planchets go to the adjusting room, ... are further scrutinized, ... the milling machine. The planchet leaves this operation with its edges turned up to protect the device which is stamped on later. Many persons call the fluting or "reeding" on the coins the "milled edge." This is an error.

Before the final stroke is given the coin that will make it an obligation of the United States Government it goes to the cleaning-room, for, after it has passed through so many processes it is black, greasy and anything but silvery or golden. They are heated to a dull red and dipped into boiling acid, which very quickly removes every trace of grime or grease. The planchets are dried after their acid bath in revolving cylinders filled with sawdust. They come out bright and shining, and are finally hustled into the coining-room, whence they become full-fledged pieces of money.

FOR FOG AND NIGHT SIGNALS.

Gas and Bell Buoy, Which Burns Three Months and is Seen Six Miles.

Remarkably effective as an aid to navigation is a gas buoy which at the same time is a bell buoy. It is likely to play an important part in the protection of the shipping of this port, as well as being a most important factor in increasing and developing the commerce of New York. This is so because through the proper use of these buoys this harbor could be made navigable at any hour, at low tide as well as when the tide is full, while fogs and thick and stormy weather would no longer be a bar to the free and expeditious entry of ships of all tonnage.

The height of the buoy over all is eighteen feet. From the water line to the focal plane it measures ten feet six inches, and the diameter of the body of the buoy is seven feet, the total weight being 6860 pounds. The body of the buoy forms the receiver for the compressed gas, and is of sufficient size to give buoyancy for flotation and of adequate strength to safely hold a pressure of 150 to 180 pounds per square inch.

On top of the body is a wrought iron tower about six feet high, surmounting which is a lantern. Surrounding the lantern is a cage for protecting it, and the tower is provided with a platform on which to stand to light or adjust the flame.

Just below the platform is suspended a bell weighing 185 pounds. This bell is sounded automatically every twenty or thirty seconds, or indeed at regular intervals of any duration, all of which may be predetermined. The flow of the gas from the receiver to the lantern furnishes the means of operating the bell. Thus a reliable

NEW GAS AND BELL BUOY.

sounding of the bell warning is secured without any dependence upon the action of the waters, as is the case with the old-fashioned bell buoys.

The advantages of these buoys can be easily understood, for they not only furnish a fixed or flashing light, that can be seen a distance of between six and eight miles, but operate in combination, and most successfully, a bell, thus affording a double protection to mariners. These buoys will burn continuously day and night, from three months to one year, with one charge of gas, and may be rented for about fifty cents a day, including the cost of gas. Buoys of this type without the bell attachment are used very largely by all the civilized nations of the world, and are officially recommended. England has 236 in service, France 223, the United States 134, Germany 98, Holland 60, Denmark 21, Egypt 112, Canada 46 and Italy 15.—New York Herald.

Ridding Havana of Dogs.

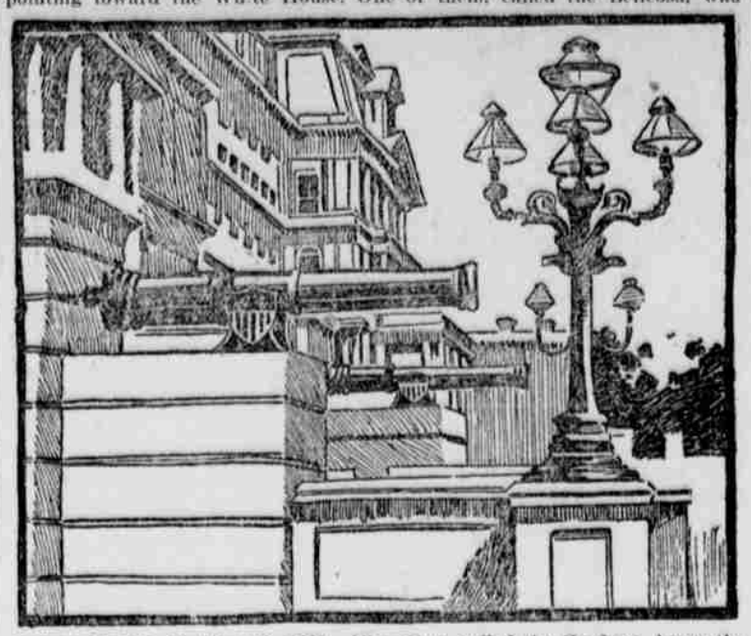
Havana used to be overrun by ownerless dogs almost as badly as Constantinople. The mangy curs were everywhere about the streets. Since the American occupation the work of clearing Havana of these nuisances has been going on, and now the streets are comparatively free. In the last year nearly 6000 dogs have been captured in the streets and killed by the municipal dog-catchers.

The Kaiser's Speechmaking.

A journalist who has often been called upon to make a stenographic report of a speech by Emperor William declares that the Kaiser speaks slowly at first, but gradually gets faster and faster, until it is impossible to follow him verbatim. The reporters, he says, generally write down what they can, and, by comparing notes afterward, concoct a tolerably accurate report of what he said.

SPANISH GUNS TRAINED ON THE WHITE HOUSE.

Two of the cannon captured by Dewey at Manila, May 1, 1898, now adorn the east front of the War, State and Navy building, in Washington, pointing toward the White House. One of them, called the Bellcosa, was



cast at Manila, October 23, 1789. The other, called the Carduna, bears the monogram of Carlos IV., and was cast at Seville, February 21, 1777. The crown of Spain is cast on each. The present mounts, provided by the Navy Department, are gilt shields, bearing the Stars and Stripes.

Curious Method of Making Wax.

The white wax exported from China is made by the curious method of using minute insects in its production. These insects are found in brown, pear-shaped excrescences or galls attached to an evergreen tree called the "insect tree." The galls are gathered in May and carried in headlong flight to the market towns by bearers, who travel at night so that the heat may not force the insects to emerge during the journey.

They are then placed on the "wax tree," which is a stump varying from three to twelve feet in height, with numerous branches rising from the top similar to the pollard willow.

The wax insects are made into small

CHINAMAN FASTENING A PACKET OF WAX INSECTS TO THE WAX TREE.

packets of twenty or thirty galls, which are inclosed in a leaf of the wood oil tree fastened together with rice straw. These packets are suspended close to the branches, under which they hang. On emerging from the galls the insects creep rapidly up the branches to which they attach themselves, and begin forming a coating of wax that in about three months attains a thickness of almost a quarter of an inch.

The branches are then cut off, and after removing as much of the wax as possible by hand they are put in a kettle of hot water, when the remaining wax floats on the surface and the insects finish their term of usefulness by going to the bottom.

Weapon For Officers' Use.

Here we illustrate a combination

COMBINATION SWORD AND REVOLVER.

sword and pistol recently patented in England by B. Reyes, of Monterey, Mexico. An officer in battle is always expected to carry his sword in one hand, and if his horse is at all fractious or hard to guide he has very little opportunity to defend himself with his pistol, and there has been instances when if a revolver was within easy reach an officer could have saved his life instead of watching an enemy aim his gun and fire before the doomed man could reach the pistol. The advantage of this combination weapon will therefore be easily understood, as the officer could easily swing the point of the sword toward the enemy in a shorter time than a gun could be raised and fired. The arrangement of the two weapons is such that the trigger can be easily manipulated while the hand is closed over the sword grip.

Mexican Bread Oven.

The accompanying photograph shows the manner in which the Mexicans used to build their bread-ovens. Seen at a distance these peculiar contrivances look like something between an ant-hill and a Kaffir hut, and, although it took several hours to bake the bread in them, they seem to have answered their purpose pretty well. Now, however, the Mexican is getting an appetite for new things, and his

OVENS IN WHICH MEXICANS BAKE BREAD

precious oven, one of the most important parts of his whole house, is one of the first things to fall a victim to the march of civilization. Stoves are now the rage; and even the very poorest manage somehow to scrape enough together to buy one.

Australia's biggest offertory was taken up at the consecration of the Bishop of Carpentaria in Sydney Cathedral. It amounted to $42,500, and is perhaps the largest on record.

THE REALM OF FASHION.

New York City.—The Eton jacket in its various modifications makes the accepted short wrap for street wear. The May Manton model here illus-

ETON JACKET.

trated is one of the best and most available, as well as the latest offered. It can either be turned back to form long, tapering revers or closed in double-breasted style with one short rever turned back from the right side. As shown, the material is velvet with revers and collar of Persian lamb, and the jacket is designed for wear with various skirts, but cloth and cheviot are equally suitable for the purpose, and the design is also appropriate for costumes of broadcloth, zibeline and all the range of suiting materials. The revers and collar can be of any fur desired, Persian cloth, astrachan or velvet, or can be of applique of cloth or silk over white, or covered with braiding on the cloth foundation.

The fronts are fitted by means of single darts and are joined to the seamless back by under-arm gores that are curved to fit the figure snugly and gracefully. The fronts are faced and rolled back to form the revers. The high collar is cut in sections that ensure the necessary curve and flare. The sleeves are two-seamed and flare over the hands, where, as shown, they are finished with bands of fur.

To cut this jacket for a woman of medium size four and one-eighth yards of material twenty-one inches wide, two and a quarter yards forty-four inches wide, or one and three-quarter yards fifty inches wide, will be required.

Woman's Blouse Waist.

The simple flannel, cashmere and Henrietta waists made in shirt waist style, but with variations in detail, take precedence of all others for morning wear and all those occasions that call for informal dress. The very pretty May Manton model shown in the large cut exemplifies the latest cut, and it includes all the newest features. As illustrated, it is designed for afternoon home wear and is of cream white flannel with stitched bands of gray, but can be duplicated in any color and combination preferred.

The foundation for the waist is a lining fitted by means of single darts, shoulder seams and under-arm seams, and which closes at the centre front. On it are arranged the back and fronts that extend below the waist, and to it is attached the shield with the pointed stock collar. The right side of the shield is attached permanently, the left is hooked over into place, and the stock closes invisibly at the centre back. The left front is attached to the front edge of the lining, but the right is left free and hooked over onto the left beneath the stitched band that finishes the edge. The sleeves are in bishop style, and are finished with slightly flaring pointed bands or cuffs that hook over at the seam, where a short opening is invisibly finished.

To cut this waist for a woman of medium size four yards of material twenty-one inches wide, three and a half yards twenty-seven inches wide, or two and a quarter yards forty-four inches wide, will be required, with three-quarter yard of material twenty-one or twenty-seven inches wide, or one-half yard forty-four inches wide to trim as illustrated.

BLOUSE WAIST.

Fancy Buttons.

Buttons are extravagant and fanciful. Parisian diamonds and old French enamel, or anything really good, can be utilized for this purpose. The little coatees, made either double or single-breasted, require buttons of some kind, either three at each side or three at one side, though, if they be very large, only two need be used.

Then plain serges and tweeds are finished with velvet collars and curious gun-metal buttons suited to this style of garment. Dull gray rough silk buttons like those used on men's coats have a chic of their own, and are undeniably good taste.

Long-Stemmed Roses on Hats.

Some novelty hats are being trimmed with two immense roses and nothing else. These roses have stalks about twenty inches long. The flowers are placed in the front of the hat, either on one side or in the centre, and then the long stalks are arranged round the crown like ribbons. The effect is certainly very charming.

Deerskin Gloves Lined With Silk.

Soft and warm and pretty are gloves of deerskin, lined with silk. Antelope skin is taking the place of gazelle-skin gloves, as they are stronger and softer and come in delightfully soft colors.

A Detail.

One feature in the detail of the bodice is a lacing of gold or silk cord across the shoulder seam, each point tucked down with a tiny gold button.

Boys' Vestee Kilt Suit.

While a few mothers allow trousers at four, such models as the charming little suit shown are usually called upon to fill the gap between babyhood and the mature age of five or six. The May Manton kilted skirt illustrated covers them gracefully, yet leaves them free, and the suggestion of coat, waistcoat and shirt gives sufficient of the mannish element to satisfy both the mother's pride and the boy's ambition. As shown, the material is broadcloth in dark automobile red with trimming of black braid with gold buttons, and shield, or shirt front, of white laid in tiny tucks, but dark blue, Russian blue, hunter's green, brown, beige and brighter golf red are all correct, and Venetian cloth, tweed, serge and camel's hair are all shown.

The waistcoat and shield are applied over the body lining so that all closes together at the centre back. The skirt is laid in seven deep box pleats, and is attached to the lower edge of the body, also closing at the back, where a placket is finished between the two centre pleats. The little coat is entirely separate, and is slipped on over the body. The backs are seamed at the centre. The fronts hang straight from the shoulders, and finishing the neck is a big sailor collar that is square across the back, but tapers to a point at each front. The coat sleeves are finished with turn-over flare cuffs decorated with braid and buttons.

To cut this suit for a boy of four years of age four yards of material twenty-seven inches wide, three yards

VESTEE KILT SUIT.

thirty-two inches wide, two and three-quarter yards forty-four inches wide, or two yards fifty inches wide, will be required.