THE DAILY EVENING TELEGRAPH-TRIPLE SHEET-PHILADELPHIA, FRIDAY, DECEMBER 24, 1869.

THE UNITED STATES MINT.

A Walk Through the Institution.

one of the most prominent places of interest in this city is the United States Mint, on Chesnut street, below Broad. It is visited by thousands of strangers every year, and yet there are many people who have been born within sight of its tall chimney (130 feet kigh) who know little or nothing about it. To entighten this class the following simple statement of facts has been written.

The hours for visiting the Mint are from 9 to 12 o'clock A. M. Polite and courteous ushers meet you at the door, and accompany you through those departments of the institution which are open to visitors.

Standing in the small rotunda at the entrance, and looking into the building, we have the office of the Treasurer of the Mint on our left; on the right is the Cashier's office. On the right, proceeding into the yard, is the 'Treasurer's clerks; on the left is the deposit room, of which more will be said hereafter. Adams Express occupies a portion of the Treasurer's clerks' room.

The Copper Melting Room.

The first object of interest after passing into the yard is the room wherein all the base metals used in coinage by the Mint are melted and mixed. Up to 1857 the base coin of the United States was exclusively copper. In the year above mentioned, the coinage of what was called the nickel cents was commenced. These pieces, although called nickel, were composed of one-eighth nickel; the balance was copper.

Since the first coinage of nickel money, the pieces have changed two or three times, both in design and mixture. The present coinage of base coins is as follows:-

	NICKEL.
Three Cent	150 pieces to the lb, or about 74
	SRONZE.
One cent 45 gr. Two 96 gr.	120 pieces to the lb.
The composition of th	he five and three cent pieces
is one-fourth nickel; th	e balance is copper.

pieces are a mixture of copp and tin, about equal parts of each, of the two last, the former contributing 95 per cent.

There are seven furnaces in this room, each capable of melting five hundred pounds of metal per day. When the metal is heated and sufficiently mixed, it is poured into iron moulds, and when cool and the rough ends clipped off, is ready to be conveyed to the rolling room.

The Silver and Gold Melting Room. The next place of interest is the gold and silver

melting room. The visitor is not permitted to enter this room, but takes his view from the doorway. The room is divided in the centre by a partition. On the right is the silver department. Here all the silver used by the Mint in coining money, as well as the fine merchant bars, is mixed (alloyed) and melted. On the left is the gold department. Both

gold and silver go through nearly the same process of refining, so in describing one we describe both. The silver or gold having passed through a sepa-

rating and purifying process, is brought to this room, where it is properly mixed, heated, and then poured into an iron mould. When cool, it is knocked out of the mould, and although it is rich-looking, it is without that brilliant lustre which we see in new coin. The piece taken from the mould is now called an ingot. It is about twelve inches long, and is wedge-shaped at one end. This end is made wedge-shaped to facilitate its passage through the rollers.

A gold ingot is worth about \$1200 in gold. A silver ingot (one dollar) is worth about \$60 in silver. Silver ingots differ in value and size, according to the denomination of the coin to be cut from them.

The false floor in this room excites considerable attention. It is laid in sections, and can be taken up. The sweepings are very valuable.

The Rolling Room.

On passing from the gold-melting-room, through the corridor leading to the rolling-room, the first object of interest which meets the attention is an upright engine on the right. This engine is eightywar and supplies the motive nower to the

ready for the coining-room.

Mint in 1830.

The Coining Room. This is probably the most interesting department

to the casual visitor of any in the Mint. On entering

the door is seen the engine, one of the finest pieces

of workmanship in this country. It is atmost en-

tirely noiseless, and of twelve-horse power. It ope-

rates all the machinery in this room. The dial

which is attached to the engine, and stands directly

in front of the visitor, marks the number of revolu-

tions and enables the Chief Coiner to tell whether

the machinery has been stopped at any time without

good cause. A greater part of the fine work of the

engine was made and put up by the workmen of the

On the left, looking towards the engine, are the

milling machines. These little machines are ope-

rated by ladies, and are used to turn up the edges of

the planchets, before they are ready for the coining

Turning to the right, the massive yet delicate coin-

ing presses stand before you, scrupulously clean and finely burnished. There are ten of these presses,

each one capable of making from seventy to one hun-

dred and twenty coins per minute. They are seldom

run at a greater speed than eighty per minute. If

each press in the room was run at its greatest capa-

press. Each machine is capable of finishing about

five hundred pieces per minute.

a tonishing sum of \$14,000 mammactured. Only the j largest presses are used in making coins of large denomination. The small presses are used for base coins and the smaller denominations of sliver pieces, The amount of pressure necessary to making 8 perfect coin is from twenty to eighty tons. The larger the piece the more pressure is required. These machines are attended by ladies, and do

their work in the most perfect manner. The deviation of a hair's breadth would spoil the com. The impressions on both sides of the coin are made

with one motion of the press. A steel die, wherein the characters to be placed on the coin have been engraved, or dug out, is welded on to what is called a "stake," and placed below or on the bed of the press. It is set about the thickness of the coin below the surface, and is surrounded by a "collar." It makes no material difference whether the obverse or reverse of the coin is below, although the latter is generally placed there. On a portion of the machine made to receive it, working directly over the lower die, the obverse die is fixed, and on this portion the pressure is regulated.

The process by which the coins are made is very similar in all denominations, with the exception spoken of below. The planchets are placed in a brass tube by hand, and at each revolution of the press two iron arms, called "feeders," working like a pair of tongs, slide rapidly out, grasp a planchet from the bottom of the tube, and put it on the lower die. Almost at the same moment the lower die sinks below the "collar," the upper one descends, the planchet is pressed between them both, receives the impression, and in a twinkling this one is caught by the arms, is thrown into a box beneath the press, and another planchet takes its place, and so on throughout. After the planchet passes through this process it is coin, and not till then, according to authority.

It is noticeable that the base coins have smooth edges, while gold and silver have "reeded" or nicked edges. The difference in the edges is caused by the "collars," in which the planchets are pressed; those for the gold and silver coins are delicately nicked, while those for the base coins are perfectly smooth. The subjoined statement exhibits the proportiog of precious metals and alloy in our gold and silver coins, together with the weights of the several denominations of the same allowed by law; also, a statement of the base metals, composing our minor or token coinage, with weights of the several pieces, and lawful deviation from the same :--

	Weight of Single Picces.	Wieners	Proportionate Alloy,	Deviation in Weig
Gold- Double Engles	Grains.	900	900 pts.gold,100 pts.coppe	G
Ragles	078	900	Do, do.	9
Half Eagles	129	900	Do. do.	* 1
Three Dollars.	64%	900	Do. do.	112
Quarter Eagles	77 4-10	900	Do. do.	1.3
Dollars	25 8.10	900	Do. do,	1
Dellars.	41914	900	900 pts.silver, 100 pts.cop*	1 1
Half Dollars.	192	900	Do. do.	11
Quart'r Dollars	96	900	Do. do.	1
Dimes	08 4-10	200	Do. do,	10
Half Dimes		900	Do, do.	1.1
Three Cents	11:52%	990	Do. do.	
Five Cent	77:16	la second	25 pts.nickel, 75 pts.coph	6 9
Three Cent	23	****	Do. do.	4
One Cent	48	im	95 pts. cop'r, 5 tin and zine	1 4
Two Cent	96	Same	Do. do.	4.4

The Deposit Room. Leaving the Coining Room, and passing through

the yard, the next object of interest is the Deposit Room. In this room all the precious metal used by the Mint is received and weighed.

About five hundred million dollars worth of gold has been received in this room since the precious metal was first discovered in California, in 1848. Previous to that the gold came from different places, but principally from Virginia, North Carolina, and Georgia. Considerable quantities, of a very fine quality, have come from Nova Scotia during the past four or five years. Most of the gold which reaches the Mint at the present time' comes from Montana Territory. Nearly all west of that goes to after having been once melted and assayed.

nearly six thousand dollars in gold.

sionally found in crystalline form.

takes place in this room.

head to that of a pea, and in lumps varying in size

from a pea to the size of a man's hand. It is occa-

The Deposit Melting Room.

Passing again into the building, on the right, just

inside the hall door, will be seen the deposit melting-

room. There are four furnaces in this room, and

the first process of melting which the gold or silver

goes through after falling into the hand of the Mint

The metal is weighed carefully in the deposit room

in the presence of the depositor and officers of the

melted.

city, and engaged in making double eagles (\$20), in Mint. It is then locked up in fron boxes, and

the short space of one minute we would have the ; conveyed to the melting room, where they are un-

locked by two men, each one having a key. The metalis then placed in pots and melted. It is then poured into iron moulds, and when cool is again carried to the deposit room and re-weighed, after which a small piece, weighing about three dwts., is cut off from each deposited lot by the Assayer. From this small piece the fineness of the whole lot (perhaps \$18,000 worth) is ascertained, its value calculated, and the depositor paid.

The gold in its rough state is then ready to be transferred to the melter and refiner to be refined, and rendered fit for coinage.

The Cabinet.

Passing to the second story of the building, you register your name and residence in a book provided for the purpose, and then pass on to the Cabinet. Here much will be found of interest to the visitor. Portraits of the different gentlemen who have acted as Directors of the institution at different times grace the walls, while arranged in cases, around and about the room, are collections of medals and coins. Each of the medals has an interesting history attached to it, as commemorating some important event in the annals of this and other nations. Specimen coins of all the nations in the world will here be found. Among these are those of ancient Rome, A. D. 177 to 222; Greek Republic, 3 to 7 B. C.; together with a collection of Oriental, China, and Japan. Passing on round the room, a plaster cast of Oliver Cromwell is seen. It is said to be a good likeness. A machine for assorting coins attracts considerable attention on account of the delicacy of workmanship. It is not in use. A large and most elegant collection of agates, petrified wood, together with specimens of gold in its native state, will be found here. At the opposite end of the room, among a collection of odd and rare coins, will be seen the "widow's mite," the smallest of all ancient coins, and which is spoken of in the Bible. The visitor will find much in this department which s entertaining and instructive.

The Director's Room, Etc. Just outside of the exit door of the cabinet is seen, in a glass case, a fine specimen of the American eagle, stuffed, with outstretched wings, as though in the act of flying. A fuc-simile of this bird will be found upon the obverse of the first nickel cents that were

To the right, looking down the stairs, is the Director's office. Here this officer receives his visitors and transacts the business of his office. The next door, on the same side, is the Chief Clerk's room. Further on is the private office of the Chief Coiner. This room has a fine library of scientific and historical works. On the left is the messenger's room, back of which are the medal and other departments for the transaction of business.

Passing the Chief Coiner's room, and thence out upon the gallery, which runs completely around the building, the machine shop is reached. This department is stocked with lathes and all the necessary tools for doing the light work of the establishment. Back of this, and adjoining it, are the engravers apartments. Here the dies used by the Mint are engraved. The dies for all the different branch mints are also made here.

The Adjusting Room.

Leaving the engravers' department, we pass im-mediately into the adjusting room. The work of this room is done entirely by ladies. The planchets of gold and silver are conveyed to this room. Here they are weighed by the ladies.

There is a certain deviation in the weight allowed by law. If a planchet is found too light, it is thrown aside and is melted over again. If too heavy, but very near the weight allowed by law, it is taken in hand, and a small particle filed off the edges; if too heavy to admit of filing, it is thrown aside with the light ones, and melted again into ingots. If the planchet is found to be of the proper weight, it is then ready for the coining press. The base coins (nickel, etc.) are not taken to this room. It belongs to the Chief Coiner's department.

The Separating Room.

Occupying a greater part of the west side of the building (second floor) is the Separating Room. Here the gold and silver used by the Mint in the manufacture of coin and fine bars are separated from each other, or whatever other metals may be mixed with them, and purified. It goes to this room

This second acid is then also poured off, and another equal charge of acid of the same strength is introduced, in which the gold is kept for ten minutes longer.

It is then presumed that the whole of the silver has been removed, and the gold is taken out, washed in pure water, and exposed, in a crucible, to a red heat, for the purpose of drying, strengthening, and annealing it.

Lastly, the cornet of fine gold thus formed is placed in the assay balance, and the number of thousandths which it weighs expresses the flueness of the gold assayed, in thousandths.

The Silver Assay. The silver is melted in a black lead crucible, with the addition of fine charcoal within the pot, to prevent oxidation and to allow of dipping out. After stirring, a small portion of the fluid metal is poured quickly into water, producing a granulation, from which the portion for assay is taken. As this differs from the mode pursued with gold, it must be specially noted that in the case of silver alloyed with copper there is a separation, to a greater or less degree, between the two metals in the act of gradual solidification. Thus an ingot cooled in a mould, or any single coin cut out of such ingot, though really 900 thousandths fine on the average, will show such variations, according to the place of cutting, as might even exceed the limits allowed by law. This fact has been established by many experiments, both in this Mint and the Mint of Paris, since the enactment of our Mint law, and it possesses the stubbornness of a law of chemistry. But the sudden chill produced by throwing the liquid metal into water

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produced by throwing the liquid metal into water yields a granulation of entirely homogeneous mix-		and the second s		
ture, and it can be proved that the same fineness results, whether by assaying a single granule, or part of one, or a number together. From this sample the weight of 1115 thousandths is taken; which is dissolved in a glass bottle, with nitric acid. Into this solution the large pipette-full of standard solution of sait is introduced, and it produces imme- diately a while precipitate, which is chloride of sli- ver, and which contains, of the metallic silver, 1600 parts. To make this chloride subside to the bottom of the vessel, and leave the liquid clear, it is necessary that	Homer, Colladay & Co. Crape Poplin Only 25c., Worth 50.	Homer, Colladay & Co. Black Silks, Best Lyons Make, \$1'50. worth \$2'50.		
it be violently shaken in the bottle; and this is accordingly done, by a mechanical arrangement, for the necessary time. Unless the pieces have chanced to be below the allowable limit of standard, the liquid will still con- tain silver in solution, and accordingly a portion of the decimal solution is introduced, from the small pipette, capable of precipitating a thousandth of silver, and a white cloud of chloride will show itself More doses are added, if the indications require it. The liquid is again shaken, and cleared; and the process is thus repeated, until the addition of the sait water shows only a faint trace of the chloride below the upper surface of the liquid.	Homer, Colladay & Co. Roubaix Poplins, Only 25c. Worth 50.	Homer, Colladay & Co. Black Silks. Best Lyons Make, \$2'00, worth \$2'75.		
Let us suppose, for the sake of an example, that three measures of the decimal solution have been used with effect. This will show that the 1115 parts of the piece contained 1003 of pure silver; and thus the proportion of pure silver in the whole alloyed metal is ascertained. Chief Coiner's Office. After passing from the assay rooms and down the stairs, we cross over to the southeast corner of the building. Here is the general business office of the Chief Coiner. In this room the gold and silver coins are weighed and counted, before being transferred to the Treasurer. This department is provided with three large vaults, all fre and burglar proof. The Cellar. Advancing toward the coining room, we reach a	Homer, Colladay & Co. Double Fold. Heavy Corded Mohairs in Fashion- able Dark Shades. 37c., Worth \$1.00.	Homer, Colladay & Co. Black Silks, Best Lyons Make, \$2.25, worth \$3.00.		
stauway leading to the cellar. Passing down, we find numerous vaults, ased for different purposes, ranging along the hall fronting on Chesnut street. Now we pass on into the main cellar. In the centre is a large space, the same size as the yard above. In this space are six large boilers, which generate the steam for the different engines, and to heat portions of the building. On the right is the blacksmith, carpenter, and paint shops. In the rear of this is the medal-strik- ing idepartment. The process of striking a medal differs from that of coln. They are struck with a screw-press, worked by hand. The "Sweeps." On the west side of the cellar is the "Sweep Grind- ing Room." Into this room all the dirt and sweepings	Homer, Colladay & Co. Triko Poplins For Walking Suits, Only 50c.	Homer, Colladay & Co Black Silks, Best Lyons Make, \$2'50, worth \$3'25.		
of the Mint are conveyed and ground up into fine powder, and after the best has been selected it is taken to the melting room, and all the metal ex- tracted. The residue is sold. The Wells. In this vicinity are also the wells, wherein all the water that is used in washing out the different rooms, as well as that which comes from the differ- ent portions of the building in time of rain, is re- ceived and filtered. They are cleaned out every few years, and the dirt disposed of as in the case of the "sweepings." Of late years the sweepings, etc., have been of comparatively little value.	Homer, Colladay & Co. Best Quality Serges For Walking Suits, Only 45c.	Homer, Colladay & Co. Hosiery of all Kinds, from 25 to 33 less than before. Homer, Colladay & Co. Linen Housekeeping Goods, An immense Stock, At 25 to 33: Less.		
General Remarks. Owing to the immense amount of precious metal which is constantly in course of transition from one form to another, and the care and watchfulness ne- cessary to a correct transaction of business, visitors are not permitted to visit some of the departments. These are of little interest to the unscientific, and are described under their proper heads. Everything is weighed so nicely and so often that the purtoining of the slightest particle would be de- tected within a few moments after the act had been perpetrated. The building is constructed almost entirely of stone and iron, and is therefore fire-proof. Deposits of less than one hundred dollars in value are not received by the Mint.	Homer, Colladay & Co. Silk Epinglines, Only 75c., Worth \$1.50.			
ART GALLERIES. C. F. HASELTINE'S Galleries of the Arts, No. 1125 CHESNUT STREET. THE AUTOTYPES	Homer, Colladay & Co. Fine Empress Cloths in all the New Colors. 56c.	Homer, Colladay & Co. Lyons Silk Velvets, All Widths, . At Large Concessions.		
AND LANDSCAPES <u>II lorp</u>) <u>HAVE ARRIVED.</u> <u>SEVENTEEN NEW CHROMOS,</u> Including five by Prang, and others French, English, and German. LOVELY FEMALE HEADS (French), 50 conts each. <u>TWENTV-FOUR NEW ENGRAVINGS,</u> And a Large Standard Selection, with TWO NEW WORKS OF LANDSEER. OTHERS BY ROSA BONHEUR, BROCHART, ETC. <u>TWO NEW ROGERS GROUPS.</u> EXOLISITE POPCIELAIN PICTURES	Homer, Colladay & Co. Best Quality Green and Blue Flaids Imported. Only 87%	Homer, Colladay & Co. Mourning Goods In Infinite Variety, Lower than since the War.		
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THE VATICAN, No. 1010 CHESNUT Street, Statuary, Bronzes, and Vases CHOICE GEMS OF ART,	In this department we hav the Prices of our Cloths, A	e made an entire revision of strachans, Cloaks, Suits, and gains are now offered to pur-		
And articles of taste for the adornment of parlor, library, hall, and boudoir, and for Bridal and Christ- mas Gifta. Articles at all prices, from ONE DOLLAR to ONE HUNDRED EACH. Spacious show rooms up stairs. Imittip	Nos. 1412 and 1414	CHESNUT STREET,		

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rolling-machines.	the Branch Mint at San Francisco, California.	In separating and purifying gold it is always ne-	On the west side of the colle
On the left are the "Rollers." About two hun-	Before the discovery of the immense lodes of silver	cessary to add to it a certain quantity of pure silver.	On the west side of the cella ing Room." Into this room all
dred ingots are run through per hour on each pair	which exist in the Territories of the United States,	The whole is then immersed in nitric acid, which	of the Mint are conveyed an
of Rolls. Gold, silver, and base metal ingots are	the silver used by the Mint came principally from	dissolves the silver into a liquid which looks like	powder, and after the best
all put through the same process of rolling.	Mexico and South America.	pure water. The acid does not dissolve the gold,	taken to the melting room,
They are received from the melting rooms in	The precious metals are now found in most of the	but leaves it pure. The silver solution is then	tracted. The residue is sold.
the same shape and size, and are passed	Territories through which the Rocky and other	drawn off, leaving the gold at the bottom of the tub.	The We
through the rollers until they assume the shape of	mountains run.	It is then gathered up into pans, washed, and dried,	In this vicinity are also th
long thin strips of the requisite thickness for the	The copper used by the Mint comes principally	after which it is ready for the use of the gold-melting	water that is used in wash
sort of coin required.	from the mines of Lake Superior. The finest is found	room. The silver used in this process, in its liquid	rooms, as well as that which
On the right, looking towards the rear of the	in Minnesota. The nickel is principally from Lan-	state, is then run into tubs prepared for it, and "pre-	ent portions of the building
room, will be seen a number of furnaces. These	caster county, Pa.	cipitated," or rendered into a partially hard state, by	
are the annealing furnaces. The metal, after pass-	Looking into the Deposit Room from the yard are	being mixed with common salt water. After being	ceived and filtered. They are
ing through the "Rolls," becomes very orittle and	seen the scales used in weighing gold and silver,	"precipitated" it is called "chloride," and resembles	years, and the dirt disposed o
	The largest weight used by the Mint is seen in this	very closely newly-slacked lime, or "smearcase." By	"sweepings."
hard, from being worked, and it is necessary to	room; it is five hundred ounces. The smallest	putting spelter or zinc on the precipitated chloride	Of late years the sweepin
soften it before putting it through any further pro-	weight used in the Mint is found in the Assay	it becomes metallic silver, and only needs washing	comparatively little value.
cess. It is therefore heated to a red heat, and when	Room; it is the twelve-hundredth part of [a	and melting to make the purest virgin metal.	General Rei
it becomes soft and pliable is taken out and allowed	grain, and can be scarcely seen with the naked	The process of refining silver is of two kinds, that	Owing to the immense amo
to cool. The base metal strips are laid loosely in	eye, unless on a white ground. The smallest weight	of melting it with saltpetre, etc., which was known	which is constantly in course
the furnace, but more care is exercised with the	used in the Deposit Room is the one-hundredth part	some thousands of years since, and the modern pro-	form to another, and the care
precious metals. They are placed in copper canis-		cess of dissolving it in nitric acid, just like the	cessary to a correct transact
ters, and carefully guarded from any friction that	of an ounce, or , what is more readily comprehended,	method of extracting it from gold in the above de-	are not permitted to visit son
may cause them to loose the slightest particle.	the one-fifth of a pennyweight.	scribed operation.	These are of little interest to
Just back of the "Rolls" are a number of machines	The largest scale in this room will weigh from six	The Assay Rooms.	are described under their pro
used for cutting, trimming, and flattening the strips.	thousand onnces to the one-hundredth of an onnce.	Passing along the gallery we enter the building at	Everything is weighed so n
In the rear of these machines are ranged in a row	The next size weighs as much as three thousand	the assay rooms. In the back room are the fires.	the purloining of the slightes
in the extreme back part of the room the cutting	ounces at a draft. The smallest weighs as much as	stills, and other appliances necessary to performing	tected within a few moments
presses. There are nine of these machines, each one	three hundred ounces at a draft. The reader can	all the work of the department.	perpetrated.
capable of cutting two hundred and twenty-five	imagine the delicacy of these scales much better	In the front room are the delicate scales referred	The building is construct
pleces (planchets) per minute. If these planchets	than they can be described. They are examined	to in the description of the deposit room. These	stone and iron, and is therefo
are of the denomination of cents, but \$2.25 per	and adjusted alternate days, sometimes oftener.	scales or "balances" are inclosed in glass cases, and	Deposits of less than one h
minute is made, but if, on the contrary, the plan-	On the right-hand side of the room is the vanits.	when the Assayer is engaged in weighing the gold	are not received by the Mint.
chetts are of gold, of the denomination of double	There are twelve of these vaults in the institution.	they are kept closed that the air may not reach them	
eagles, we have the sum of \$4500 per minute.	They are of solid masonry. The most important of	and thereby influence either side.	ART CALL
These presses are a comparatively recent inven-	them are lined with iron.	The Process of Assaying Gold.	C F. HAS
tion, and each press is capable of cutting any deno-	There has never been an attempt to break into the	The gold is placed in a black lead crucible, and	C. F. HAS
mination of colns, as they are regulated by the size	institution or the vaults. An attempt would be	covered with borax, to assist the fluxing and to pre-	
of the punch, which is movable. A sample of plan-	fruitless, for not only are the doors of extraordinary	vent oxidation of the alloy. It is thus meited down	Galleries of
chets from each strip is carefully weighed before	strength but every quarter is guarded. The only rob-	and stirred; by which a complete mixture is effected.	Ganeries of
the strip is permitted to be used.	bery of import which ever occurred in the Mint	so that an assay piece may be taken from any part	
The planchets, as cut, fall in boxes beneath the	was perpetrated by a trusted servant of the Govern-	of the bar cast out. The piece taken for this purpose	No. 1125 CHESNI
press and are taken out in quantities and again an-	ment in 1854. He purloined small particles of gold	is rolled out for convenience of cutting. It is then	
nealed in the furnaces.	from the different lots brought in by the miners. He	taken to an assay balance (sensible to the ten-	
On the extreme left, on a line with the cutting	was detected, and a great portion of the stolen gold	thousandth of a half gramme or less), and from it	
presses, are the "draw benches," These machines	made good. Since then, new regulations have been	is weighed a half gramme, which is the normal assay	
are used for regulating accurately the thickness of	made, which render a recurrence of the same thing	weight for gold, being about 77 grains troy. This	THE AUT
the strips of gold or silver of any lumps or other	impossible.		
unevenness. This is done by drawing the strips	In regard to the discovery of gold in California,	weight is stamped 1000; and all the lesser weights	AND
between stationary rollers previously set to the	the following extract from a letter from the Director	(afterwards brought into requisition) are decimal	
required thickness. The machinery of this end of	of the Mint to the Secretary of the Treasury, dated	divisions of this weight, down to one ten-thousandth	LANDSO
the room is run by an engine in the cellar beneath.		part. Silver is next weighed out for the quartation ; and	LANDSC
The Cleaning or Whitening Room.	December 11, 1545, will prove interesting. It reads as follows:	as the assay piece, if standard, should contain 900	
On the right, between the entrance to the rolling-		thousandths of gold, there must be three times this	11 lorp] HAVE ARE
room and the annealing furnaces, is the cleaning or	"On the sth instant we received the first deposit of gold from California. It was deposited by Mr.	weight, or 2700 thousandths of silver; and this is	SEVENTEEN NEW
whitening-room. (Visitors are not permitted to enter	Daniel Carter, who brought it from San Francisco	accordingly the quantity used.	
this room, unless accompanied by an officer of the	by the Isthmus route. It weighed 1804 59 ounces		Including five by Prang, and
institution.) In this room the planchets are cleaned	troy. " On the 9th, another deposit was sent	The lead used for the cupeliation is kept prepared	and German. LOVELY FEMALE HEADS
by heat and acids, and when thoroughly dried are	by the Secretary of War, which weighed 225 ounces.	in this sheets, cut into square pieces, which should	TWENTY FOUR NEX

by the secretary of war, which weighed 225 ounces, * * The average value per ounce of the bullion before melting is \$15.05%." each weigh about ten times as much as the gold under assay. The purest gold in this country has been found in The lead is now rolled into the form of a hollow the State of Georgia. It is seldom found in any great cone; and into this are introduced the assay gold quantity in any of the Southern States. and the quartation silver, when the lead is closed The largest nugget of gold ever brought to the around them and pressed into a ball. Mint came from California in 1852, and was worth

The furnace having been properly heated, and the supels placed in it and brought to the same tempera-Attempts have been made to deposit spurious or ture, the leaden ball, with its contents, is put into manufactured nuggets at the Mint; but no matter one of the cupeis, the furnace closed, and the operahow nicely the fraud has been concealed, the cheat tion allowed to proceed, until all agitation is ceased has always been detected before the "stuff" was to be observed in the melted metal, and its surface has become bright. Gold, as received from the hands of the miner, in

This is an indication that the whole of the base its native state, is often of curious formation, and metals have been converted into oxides and absorbed differs considerably in outward appearance. It is by the cupel. found in one dust, in grains from the size of a pin's

The supellation being thus finished, the metal is allowed to cool slowly, and the disc or button which it forms is detached from the cupel.

The button is then flattened by a hammer; is annealed by bringing it to a red heat; is laminated by passing it between the rollers; is again annealed; and is rolled loosely into a spiral or coll called a cornet. It is now ready for the process of quartation. For this purpose it is introduced into a matrass containing about 1% ounces of nitric acid, at 22 deg. of Baume's hydrometer; and in this acid it is boiled for ten minutes, as indicated by a sand-glass, The acid is then poured off, and three-fourths of an ounce of stronger acid, at 32 deg., is substituted for it, in which the gold is bolled for ten minutes.