HOME-MADE HATS.

How They May Be Made Cheaply and Well.

IT IS A REAL ECONOMY.

A Striking Feature of a Woman's Costume.

RULES FOR AN AMATEUR.

Special Correspondence of The Evening Star.

NEW YORK, November 3, 1893.

THE WOMAN whose hat is just right will escape without serious scrutiny of the rest of her costume. This is a little secret that many a woman has discovered who spends not so very much on her wardrobe and yet has a reputation for dressing. On many occasions the hat is all that really shows of the get-up. At the theater, for instance, and on any of the many sitting down affairs a woman goes in for, it is better to have one gown and three hats than the reverse. You are probably making up your mind that hats cost so much that three hats to one gown is not going to be within any ordinary pocket book's reach. Surely not if you get your hats ready made, but you mustn't. You must make them yourself, and here are some rules to help you.

The amateur's hat is seldom large enough in the crown, it seldom fits well and it always has too much on it. Avoid these faults and this one more: the amateur's hat is insecurely trimmed; I mean the bows wobble, the feathers don't seem to know their own minds and the flowers are loose in the wrong place.

Now, having been told what not to do, attend to the things you must do. First, to trim a big hat, get it big enough in the crown. Make sure which is the front and which the back, and put a mark to designate the exact front and the exact back. For your first attempt you have selected a felt that does not need wiring about the brim. The fewer irregularities you give the brim the better. The bend upward just in front that is at present popular is secured by stitching the brim and the crown of the hat together very near the bottom. One stitch taken over and over and the end carefully secured does the work. The rosette or fancy pin under the brim of such hats against the hair is to cover the stitch.

Now decide where you want your bow. Don't try the hat on; it is not to be tried on till it is all done. Having settled in your mind where the bow will be, make it. Bows are big and many looped, and the loops stand independent and well clear of each other at the base. If your ribbon be light, use white wire; if dark, use black. Tape wire is best because you can stitch through it. Have lots of it, all smooth and straight. Make the first loop of the wire, pass the ribbon over the loop, making it snugly tight, then tie the ribbon and wire round and round at the base with good stout thread. Wind this first loop till it is all solid. Make another loop from the long end of the wire, pass more ribbon over, bind the new loops secure, and fasten the two loops safely together. Allow a little length of wire each time between the loops so that when all the loops are made they will be bound together to a solid stem of the wire. Neither wire nor ribbon is to be

Easy to Trim.

cut till the whole bow is made, and a short piece of the wire should be left to assist in adjusting the bow to the hat. If a feather is to go with the bow, or if several feathers are to be added, now is the time to do it. Feathers at present are made wide at the top and narrow at the base. To the quill should be fastened securely, by winding round and round with thread or fine wire, a stout wire at least a finger's length, turned into a loop. The feathers must each stand clear of the loops. This effect is accomplished by securing the wire loop of the feathers to the stem of your bow and leaving a wee bit of the wire clear above the binding by which you fasten the feathers to the bow. Now you have the whole group that is to go on the hat made and firm, and the whole cluster has a stem that is part of itself, and about half an inch long.

If your hat is to have a band around the crown, lay your bow aside and attend to the band. Secure it smoothly and firmly. Better use ribbon, for velvet is so hard to "set." The bow and feather or feathers are now to be fastened. Decide where it is to be placed. Set it so that the point where loops and feathers spring free of each other shall come about at the top of the hat, for, of course, you have chosen a low-crowned hat. The stem to your bow you fasten securely to the side of the hat crown. Sew over and over the stem, taking a good hold underneath each time. When the sewing is done, there should be no more wobble to the bow or the feathers than as if they and the hat were all made together, and so secure must the fastening and attaching of loops and feathers, and all to each other, be that you must now be able to bend single loops here and there as you like, without injuring the security of the whole in the least.

Therefore in selecting the position for the bow you must also decide upon the angle

Might as Well Be Home Made.

at which to place it, because that angle cannot be modified once the bow is fast. Rosettes for beneath the brim in front and against the hair in back must be made firmly and all finished before they are put on. Then they must be applied with exactness and fastened with great care.

If the hat was a good size to start with, if you have trimmed it with due consideration for having the front of the hat come in front, if you have selected a shape that suits you, and if the hat trimmed in your hand looks simple and shipshape, you may try it on. It is sure to look well. When you go into a swell milliner's to select a hat you take one "ready made," don't you? It is all nonsense to "try on" to see if the hat is going to be all right.

The secret of a pretty theater hat is almost all in having the crown big enough. To be big enough it must come easily well down on the sides of the head. A good way to start your theater hat is to tie a band of ribbon very loosely around the head. Slip it off and sew stout wire to the outside of the ribbon circle. Let the ends of the wire lap over securely. Sew three rows of the wire to the ribbon, each round of wire lapped and tightly finished at the ends. If you mean to wind the wire, so the crown of your little theater hat will be like a twist of ribbon, you must make your foundation circle that much larger around to allow for the twisting of the ribbon. Two rosettes set in front and a little apart and a couple of velvet points faced with a contrasting silk and spreading to right and left, set right at the back and bound to the crown by a knot of velvet, make a pretty head rig. Or you may set a little mercury wing on each side of the circle and have a

'Twill Test Your Skill.

jeweled buckle and a tiny aigrette just in front. There are endless varieties, all pretty, and the main rule is to make the crown big enough, let it be secure, and make your bows before you put them on.

Spangles are a great deal used just now. Felt hats have a row of spangles around the edge. These are mounted on a narrow beading of jet and lap over each other. Toques are often bordered with spangles; but in their case the spangles are mounted on a stiff band set vertically on the edge. Charming models appear with full crown of scarlet or fuchsia red velvet, encircled in this way. The trimming may be a cluster of black satin roses with jet hearts or a rosette made of clipped cock's feathers, each feather brightened up with a dashing of jet braiding about the edge. In both cases a couple of quill feathers may be added or a pair of handsome jet pins.

There is a wide range of variety in the five hats sketched. First, there is a small stringless bonnet having its pointed jet crown set on narrow bands of brown beaver. It is set off by a black military aigrette shot with mauve pink shading to pale pink. Next comes a child's model made in light brown felt, with bow and

Another Easy One.

long strings of rose-colored satin ribbon. The third example is a theater hat, composed of rose-colored geraniums and trimmed in front with three black velvet bows. A carriage hat in pale beige felt follows, the brim slashed picturesquely, as is now so much the vogue, and edged with black ostrich feathers and ecru guipure. It is trimmed with black ostrich tips, held in place by a large velvet rosette, and smaller rosettes are put inside at the base of the cuts. The last specimen is a pretty modification of the harlequin hat and has the brim cut into points, each point being bent slightly forward. Made of Havana brown felt and trimmed with two black feathers set near the edge it becomes a very serviceable hat.

Instructions have not been given for the making of each of these widely differing models, and, indeed, the trimming of some of them would be all the amateur should attempt. But if you will once try to trim or make your own headwear you will be so surprised and pleased by your success that your courage will rise till you feel equal to anything. It is mostly a matter of courage. Are you brave enough to go buy your material and begin?

IMMUNITY FROM SMALLPOX.

Vaccination in Youth Does Not Insure Safety in Maturity.

From Harper's Weekly.

The human body furnishes the only soil, so far as known, on which the germs of smallpox can multiply and retain their virulence. Vaccination renders the body no longer habitable for the germs. If, therefore, the entire race could be given immunity through vaccination, time being allowed for the destruction of such unproductive germs as had found temporary lodgment elsewhere than in the body, smallpox would cease to exist. Its last germ killed, there is no more reason to suppose that it would ever originate again than there is to expect the reappearance of the great auk, the mammoth or the glyptodon. In theory such an achievement might require but a month or a year, but in reality a century has not accomplished it.

The chief reason why vaccination has failed of this ultimate ideal achievement is—paradoxical though it sounds—because vaccinated has operated so efficiently. So nearly has it banished smallpox that no one now fears that disease, and a general carelessness prevails regarding it. No better commentary in this regard could be made than mention of the fact that two physicians recently contracted the disease in New York from a case which came to a dispensary where they were in attendance. If physicians fail to give themselves immunity, what shall we expect of the public at large.

The other chief factor which co-operates with carelessness to keep smallpox in existence is ignorance. So little is smallpox heard of now that many among the more ignorant classes scarcely know the meaning of vaccination. Health officers find many persons who suppose they are being vaccinated to "cleanse the blood." It does not matter much what they think, perhaps, so long as they submit to the operation. But many decline the boon, and these, of course, remain susceptible to the disease. Our laws offer protection to all, but force it upon no one. Abroad, in many places, vaccination is compulsory, a fine imposed if any child is found unvaccinated at a certain age. The result thus aimed at is accomplished in this country in a more pleasant way, by prohibiting unvaccinated children from attendance upon the public schools. This measure, together with the constant solicitations of health officers, results in the vaccination of a very large proportion of infants.

But vaccination in infancy is not enough. It gives immunity for a time, but with growth the tissues change, and after a few years the body becomes again susceptible. Revaccination must be practiced when the child is six or seven years old, and again during adolescence. Even this third vaccination does not always give protection throughout life. Immunity should be tested every few years by repeated vaccinations, and only persons who have submitted to this test within a few years past can at any time feel fully assured that they are insusceptible to smallpox. Not alone the ignorant, but many people of intelligence, suppose that so long as the scar of a previous vaccination appears they are immune, and with confidence born of this delusional belief, go about the world almost as susceptible to smallpox as if they had never been vaccinated.

He Saluted the Justice.

From an Exchange.

Dr. Oliver Wendell Holmes is looking well for his years. The other day he visited the Boston court house, and when he saw his son standing at the door made a respectful bow and said: "How do you do, Mr. Justice Holmes?"

Lots of Them Now.

From Truth.

Willis—"Are there any poor in your church?"

Wallace—"Yes, I imagine so. We had a church fair a few days ago."

MODERN BRIGANDS.

Business Methods and Reckless Daring of Train Robbers.

THE OLD WAY AND THE NEW.

How an Express Clerk Turned the Tables on Two Robbers.

THE POTENCY OF A DROP.

EXPERIENCED trainmen, officers of the law and express officials are unanimous in the belief that the introduction of a bill in Congress for the punishment of train robbers has brought that daring mode of acquiring wealth to an abrupt end. The class of men that commit the crime of robbing passengers and express cars are unquestionably poorly informed as to legislation, and reading or hearing of a bill being presented in Congress for their punishment believe that bill has become a law instanter. While these men are willing to take chances with private corporations, the federal government has a way of running to earth those who commit crime cognizable by its courts that will, no doubt, lessen the number of these depredations to a nominal degree.

The bunch of train robberies committed during the month of August is a bad record for any country, and almost a disgrace to one like ours. The worst of it is that the ease and safety with which trains can be held up and the enormous booty to be obtained in this way is certain to stimulate this form of crime and insure its frequent repetition unless a substantial check can be put upon it in some way. The Lake Shore robbery in Indiana netted the thieves $20,000, while the Mineral Range robbery in Michigan gave them $75,000. That the booty was recovered in the latter case is exceptional. The robbers usually disappear with their spoil as completely as if the earth had swallowed them up. It is only in exceptional cases that one is injured, and usually the supineness and meekness of the trainhands insure the safety of these modern Claude Duvals. The passengers are often not molested at all, and even when they are required to hold up their hands, it is a mere incident to the robbery of the express car.

A Law and Its Enforcement.

The epidemic of train robberies in the latter part of August caught Congress in session, and the evil became so patent that a bill was introduced to meet the outrage by making the robbery of trains a federal offense. But a mere law against highway robbery is of little avail without men to enforce it. The country should be policed as well as the towns, and the lines of railway travel most of all. But, until this civilizing peace force is organized and put to work, it is not asking too much of the express companies to require them to give better protection to the treasure which now attracts the evil-minded and is the objective point of nearly all our train robberies. The scarcity of "hold-ups" within the last month leads one to the belief that the express companies have also reached this conclusion.

When the first Pacific railroad was completed armed troops were carried on every train until it became certain that Indians would not molest this latest invader of their ancient domain. The express companies, which endanger the safety of a passenger train by shipping treasure which is insufficiently guarded, invite these train robberies. They should be compelled to guard their treasure by men who not only carry arms, but know how and are willing to use them effectively when necessary. One or two messengers, even if armed and disposed to fight, are no match for such a large band of robbers as that which held up the Lake Shore train a short time since in Indiana. For the better safety of passengers the express cars which carry treasure ought not to be a part of a passenger train. The lives of passengers are put to a needless hazard by the combination of passenger coaches and treasure-bearing express cars insufficiently protected and inviting attack and robbery at every stage of their journey.

Tracking a Gang.

The railroad and express companies have a regularly organized force of officers and during the August rush of business by the robbers in the west the greater portion of this force in the east was hurried toward the setting sun as fast as possible. Within the last month the train robbing business has taken a slump and these officers have been returning to their regular assignments in twos and threes. Meeting an old acquaintance of this force who was lounging about the 6th street depot a reporter of The Evening Star asked him for particulars of his trip and also his ideas on the epidemic of train robberies that recently swept over the west. He said:

"You know that I served as a special officer for several years in the west, and went through many tough experiences. That was about ten years ago, when the James gang was astonishing the western people, who are accustomed to remarkable occurrences, by their daring raids on passenger trains and overland mail and express coaches. From this experience it may be gathered that I know what I am talking about.

"When the first 'hold up' occurred recently in the vicinity of Kansas City I received this dispatch from the chief officer of the western division, located in Chicago:

"'Come on at once, and pick up all our men in sight on your way out. Big hold up in Kansas, and I believe the gang will work east.'

"The chief was right in his surmise, as later developments demonstrated. Five minutes after receiving that dispatch I was on a train bound for Chicago, and on the way out collected twelve of our men. Before we could form any plans as to locating that particular group of train robbers the big hold up occurred down in Texas. That robbery demonstrated that a master mind was engineering the raids on the express companies' treasure box, as it threw the chief and all of us completely off our reckoning. Of course we immediately started for the scene of the latest robbery, and, as we thought, found plenty of indications to show that the gang was still in that country. We scattered in twos and fours and worked for a week without discovering anything of a substantial nature. The leader of the gang performed his work very similar to an expert chess player, for while we were hunting him and his gang down in Texas he was going east, substantiating my chief's first idea, and at that hour was no doubt laying his plans for the big robbery in Indiana. Three days later upon reporting at the telegraph office in Waco I received the following telegram:

"'My first judgment correct. Come at once. Gang in Indiana, and have made a big haul.'

Latter Day Highwaymen.

"Two days later I reached that scene and found my chief in charge of affairs. He was in a pulling-the-hair state of mind to think that the robbers had outwitted him and that he had not stood by his first decision of mind. He is also an old timer and been in many tight places and he told me that for a reckless display of nerve the James gang were not in the same class with this latter day band of highwaymen. I called it cuteness, because they got away with their spoil. No matter how hard we worked and how many clues we ran down, the robbers made Chicago ahead of us and your judgment will tell you how safe they were there with the thousands of 'crooks' to keep them company. My chief is looking for them yet, but my private opinion is that they have returned to their western haunts and will be heard from again in similar scenes and are only awaiting the proper time.

"It was while we were working on the Indiana robbery that the Michigan-Iron Mountain 'hold up' occurred. At first we thought it was the same gang, but one day's work on the case told us that we had a crowd of bunglers to deal with this time and a few days later our surmise proved correct, as we arrested the man that had the money and for his release secured possession of the stolen treasure and the arrest of his companions. The work of the train robbers in Indiana no doubt put the idea in the Michigan men's minds that they were good highwaymen too, but they lacked a good leader and were minus the dash of the western men. The smaller 'hold ups' I believe were committed by single members of the first band simply for the excitement connected with it and to keep their hands in. They have lots of money, as a result of their successful raids, and it will take them some time to spend it, but mark my words they will be at their old tricks again before Christmas Day passes over our heads."

"What is your idea about resistance being offered the robbers by the messengers and trainmen?" inquired the reporter. "Do they take the right course in dealing with these desperadoes?"

In a Case of Hold-Up.

"Yes and no. When it comes to a case of manhood they are right, but considered from a common sense point of view they are wrong. What is the use of resisting when a man has the drop on you? All nonsense, I say. Now, in that robbery down near Waco, Texas, the messenger resisted. What did he get? Why, a system full of lead. He didn't save the treasure. He didn't do himself any service, and the good opinion of the company is nothing to a dead man. I say it is all right to give up when a gun is at your head. There's nothing else to do. Shoot your highwayman as he runs, if you can, but look out for your hide. You will never get another. When robbers are so desperate as to make an attack on a train loaded with passengers of all descriptions they are desperate enough to do anything. I was in a 'hold up' some fifteen years ago on the Rock Island road, that was before I became a special officer, and I don't want to be in another. The James boys engineered that raid, and I want to say that the barrel of the six-shooter I gazed into looked bigger than a joint of stovepipe. Some of us had been boasting the night before what we would do in just such an emergency, but we didn't do it. We attempted to crawl under the seats and through windows, and many forgot to hide their watches and money. Oh, it was easy enough for the people in the east here to brag, but the man who refuses to acknowledge the potency of the drop the other fellow has on him is a bigger fool than I am.

"Circumstances alter cases, of course. Take the case of my friend Jack Brewster. He was clerking at night for the Wells-Fargo Company out in Silver City, Colo., in the early days of that city. The office was situated on the first floor of the biggest hotel in town and was of considerable importance as it was the center of a large mining district. The miners brought a good deal of gold in from the mountains and it was their practice to deposit it with the express company over night for the town was crowded with a rough element and robberies and even murders were of frequent occurrence. The express company had a large safe in the office and this frequently held as high as $25,000. As deposits were made every ten or fifteen minutes during the time prior to midnight it was easy for robbers to know that the express company kept this money on hand and to guard against an attack Jack always went armed and was a bad man to tackle as he is a sure shot and full of grit. The little office which inclosed the safe and desk was separated from the general office by a high railing and the small gate between the two was secured by a spring lock, difficult to open unless one understood it.

One Lively Incident.

"One dark and rainy night Jack was sitting alone in the office some time between 1 and 2 o'clock, when a couple of Mexicans entered the room and came up to the desk. They said they would like Jack to take care of their money and they proceeded to count out nearly a thousand dollars in gold coin. As Jack turned to open the safe before counting the money after the Mexicans, and just as he was about to swing back the iron door he heard a sharp, whizzing sound and then something struck him a tremendous blow in the back. He instantly raised up and whirled about to face the Mexicans, and as he did so a large knife fell from his back to the floor. He thought for a second he had been fatally wounded, and, determining to revenge himself upon his assassins, he quickly drew his trusty revolver and fired at the men, who had been unable to open the gate and were still outside the railing.

"Jack's first shot broke the arm of one of the robbers and he gave a cry of pain. The other Mexican attempted to grasp some of the gold, but Jack fired again so quickly that he turned and fled. A third shot hit this Mexican in the side just as he reached the door, but both of them managed to escape and ran off up the street. Their yells and Jack's shots brought twenty guests down stairs in all stages of undress, but each man had a gun, pistol or bowie knife, and the rascals were quickly pursued by most of the miners. Owing to the darkness and the start they had both got away, but they left their gold coin behind them. This was given to Jack by the express company for defending their property and thus he made a handsome little stake in a single night, for the Mexicans never put in an appearance to claim the gold.

"Jack told me his escape from death was owing to a fortunate incident. He had been getting round shouldered and his friends had poked so much fun at him about it that he got a blacksmith to make him some steel shoulder braces, which were covered with buckskin. These steel braces were made strong enough to have fitted Samson, but their being so heavy saved Jack's life for the point of the knife when thrown by the Mexican had struck one of these and thus failed to penetrate his body as it would otherwise have done. Throwing a knife was a favorite pastime with Mexicans and some became so expert that they could hit a silver dollar at a distance of ten or twelve feet. They no doubt thought the knife would so suddenly end Jack's life that he would make no outcry to alarm the people in the rooms upstairs, and, as he had unlocked the safe, they could rob it at their leisure. It was a close call for Jack, but he came out unharmed."

UNCLE SAM'S BURDEN

The Government's Silver a Load for 300,000 Able-bodied Men.

HOW BULLION IS BOUGHT.

Some Interesting Facts About the Precious Metals.

THE PROCESS AT THE MINTS.

UNCLE SAM IS CARRYING a heavy load of silver just now. Being "dead weight," the stock of the metal now on his hands would burden 300,000 able-bodied men. Sustaining 100 pounds each and marching six feet apart, they would stretch in a single file 350 miles, or as far as from Baltimore to Boston. Stacking their freight in a single heap, they would find that its total bulk was 125,000 cubic feet. Transported by rail it would require thirty trains of twenty-five cars each, each car taking twenty tons.

Nevertheless, the treasury has kept on buying more of this precious substance. Every month, obeying the Sherman law, it has been acquiring 4,500,000 ounces. This quantity is just about equal to the total silver product of the United States. By such obligatory purchases it is claimed that the government has lost $40,000,000 since the legal enactment above referred to went into force. This sum represents the difference in money between what it has paid for the metal and what the latter is worth today.

How the Silver Was Bought.

On three days in each week the director of the mint received bids from dealers in bullion who wished to sell the commodity to Uncle Sam. Offers had to be sent in before 1 o'clock p. m. They came by telegraph—nearly all of them between 12:30 and 1 o'clock, because the silver merchants wished to take advantage of the latest quotations. The telegrams were recorded in a book, and those bids were accepted which seemed reasonable. Advices as to the state of the market reach the treasury every day from New York and London. The dealers are allowed five days to deliver the metal at the mints. On delivering it the seller gets more than a moiety of his pay at once in the shape of a check signed by the superintendent of the mint. He collects the balance as soon as the exact value of the stuff has ben ascertained. It should be understood that the mines sell their ore to the smelting and refining works; the latter sell the metal in bricks to the dealers in bullion, who dispose of them at the best price they can get. What they cannot sell to Uncle Sam they dispose of in London, which is the world's market for silver.

Bullion at the Mints.

The treasury at Washington never handles any bullion. All of it is kept at the mints. In the great coin factory on Chestnut street, Philadelphia, is now stored $101,000,000 in silver bricks. Uncle Sam owns at present almost exactly $500,000,000 worth of this metal. Of this mass of value $375,000,000 is in standard dollars and subsidiary coins, the balance being bullion. Yet only 58,700,009 silver dollars are today in circulation, more than five times as many being locked up in the government vaults unused. They take up a lot of room. One million of them will occupy a space of 250 cubic feet. Oddly enough, a box containing only 150 cubic feet will hold $1,000,000 in quarters or dimes, because they pack so much better.

Silver sold by the bullion dealers to the mints is reduced to absolute purity by a chemical process. It is first dissolved with nitric acid in a great tank. Salt water is put in, and that causes the precious metal to fall to the bottom, where it looks like so much plaster of paris. The base metals that were mixed with it remain in solution and are thrown away. But the silver has taken up from the salt an element called chlorium, making it chloride of silver. This must be got rid of. So the metal is shoveled into another tank containing a solution of zinc, which absorbs the chlorium and leaves the silver perfectly pure. The latter now has the appearance of fine gravel. It is next pressed into cakes and dried in an oven, after which it is ready to be melted for making coins.

A Mystery.

Nobody has ever been able to explain what becomes of all the silver and gold produced in the world. The total loss of both those substances from shipwreck, fire and wear and tear has been reckoned at $1,400,000 per annum. The entire amount of silver now in the possession of mankind is only equal to what has been produced during the last eighty years. What has been the fate of the vast balance? The white treasures of past centuries—where are they? It is an unsolved mystery. At the beginning of the Christian era the precious metals in the Roman empire amounted to $1,640,000,000. This store shrunk so rapidly during subsequent centuries that at the date of the discovery of America the stock of silver and gold money in Europe did not exceed one-tenth of the sum mentioned.

The depleted currency of the old world was made full again by supplies from the new. Today America furnishes nearly all of the silver used by the inhabitants of the globe. The great source of supply is what geologists term the Cordilleran system, embracing the Rocky mountain region, the Mexican plateau and the Andean chain of South America. In fact, the metal is not produced to any important extent anywhere else. In 1892 the United States yielded $39,000,000 worth of it and Mexico $50,000,000. It is among the foremost of American products. For that reason, among others, silver advocates claim that we ought to uphold it in the world's markets at all hazards.

Silver coin undergoes a loss in weight due to wear and tear of circulation. It falls on Uncle Sam and amounts to about 7 per cent. The "life" of a standard dollar rolling through the channels of trade is only fifteen or twenty years, while a quarter does not last half as long, and a dime is even more rapidly perishable. But, whereas only a reduction of one-half of one per cent is allowed on gold, no limit is set by the treasury against silver pieces. The latter are accepted at face value so long as the mint stamp on them is visible. This rule, of course, does not apply if they have been purposely punched, mutilated otherwise or "sweated."

Current Tokens.

The gold coins of the United States, you see, are the people's money. Uncle Sam issues them at his own expense, the yellow metal in them being worth their face. But the silver dollars and subsidiary pieces are circulated by the government on its own account, the profit on them being to its own advantage. Intrinsically they are not equal to their face value; in effect they are merely tokens, the stamp of the treasury making them current. Accordingly the government feels obliged to redeem them at any time without deduction, so long as they are in condition to be identified. In a sense, they are obligations to pay. It is quite otherwise with gold.

With gold coin there is a loss of no small consequence by abrasion in bags at the treasury, through rubbing against one another; but with silver, this damage is not important enough for consideration. Bars of pure silver—99-100 fine—are made at the mints and sold to jewelers and other merchants, not so much for their benefit as to save from destruction the coins, which would otherwise be melted for use in the arts. Coin silver is 90-100 fine; sterling is slightly better, or 925-1,000 fine—such being the legal make-up of British silver pieces.

A New Use Needed.

What silver most needs is the discovery of a new industrial use for the metal. Copper has been thus saved, in a commercial sense, recently. It was in the same fix a few years ago, the price of it having gone down, owing to over-production. Processes were devised for producing it more cheaply, and vast new deposits were found in Montana. But it fortunately happened that novel uses for copper were hit upon through the development of electrical science. It was needed in thick wires over hundreds of thousands of miles by the long-distance telephone, and in other ways a fresh demand for it arose. Thus the price has been held up.

Silver is far more widely used in the arts today than ever before. The commonest articles are now plated with it, or even made of the pure substance. In various shapes it is sold in dry goods shops, instead of being dealt in exclusively by jewelers, as was the case a few years ago. Many novel employments for it are already found. Much of it is used and entirely lost in photography, in the shape of a nitrate, which is sensitive to light. In medicine the same nitrate is taken for epilepsy—the symptoms of which it mitigates, but does not cure, while turning the complexion of the patient blue—and, of course, lunar caustic is simply nitrate of silver. Silver is substituted for bone in surgery, in trephining and otherwise. Good looking glasses are backed with silver, and not with mercury, as is popularly supposed. The glass is laid back down in a bath of nitrate—that is, silver dissolved in nitric acid—and the addition of Epsom salts causes the metal to deposit itself in a chemically pure film over the surface. In Pliny's time, by the way, mirrors were commonly made of silver, though previously they were manufactured out of a mixture of tin and copper.

The Deposits of Silver.

Whereas gold is found pretty nearly everywhere—in sea water, in sand, in rocks quite generally—silver is an element not often come across, comparatively speaking. It readily combines with all sorts of other elements, and thus ordinarily occurs in the shape of chlorides, sulphates and carbonates, being seldom discovered "native" or pure. Produced by nature in such shapes, it is not pretty to look at, the richest ore sometimes resembling blue sand. That is one reason why it was utilized to only a very small extent by the American aborigines up to the time of Columbus. They knew little of it, though some of their ornaments were covered with plates of it, beaten very thin.

The great deposits of silver in Nevada, Colorado and elsewhere in the world were made by water. That innocent element, percolating through the earth, picked up out of the rocks small particles of the metal and carried them along in solution. Passing through cracks and cavities the subterranean currents deposited their loads of the metal and thus after thousands of years pockets and fissures were filled with it. Sometimes these deposits were enormous, as in the case of the Big Bonanza, which was a slice of ore 300 feet wide and of unknown depth, extending across the famous Comstock lode. It yielded $600 to $1,000 a ton. This was pretty rich, considering the fact that a ton of ore equals only 13 cubic feet, but ore has been dug in Colorado recently which produced $12,000 a ton.

The great silver deposits of the world have been struck by chance. The Comstock lode was an accidental discovery. Peru's famous mines were found by a shepherd, who, while climbing a slope of the Andes, lighted some brambles for cooking a frugal repast. A pebble, heated by the flames, attracted his notice by its shining. He took it to Lima, where it was examined and declared to be precious ore. The care-taker of flocks became a millionaire.

In South America.

The richest veins of silver in Chile were found by a mountaineer named Godoy, who hunted guanacos in the Andes. One day, being fatigued, he sat down under the shelter of a huge rock and was struck by the color and brightness of a projecting part. He chipped off a piece of the stone with his knife, and, finding that it cut like cheese, took a specimen. Metallurgists declared that it was chloride of silver—otherwise known as "horn-silver," because it has somewhat of the texture of horn. The mine developed silver in masses, but Godoy sold his share, dissipated the proceeds, and died without a penny. Among the employes of the mine discovered by Godoy were two brothers named Bolados, who gained a miserable livelihood by carrying wood on the backs of asses to the smelting house. One day they came across a crevice in the earth, opened by an earthquake, in which was an enormous block of silver ore. From this block more than sixty-five quintals of silver were taken by merely removing the soft crust from the mass. It was worth altogether $700,000, which the brothers squandered in gambling and otherwise, being left poorer than before the discovery.

Silver in the Bible.

The first mention of silver occurs in the Bible, where Ephron values his field at 400 shekels of silver, which are weighed out to him by Abraham. It is stated later on that Joseph's brothers sold him for 20 pieces of the same metal. Silver and gold were used by weighing long before they were coined. The ratio at which they were first coined was the ratio at which they had previously gone into use by weight. In Greece and the Greek cities of Asia Minor the ratio was 13 to 1, but it fell to 10 to 1 after the conquest of Athens. In ancient times gold was the variable metal; it fluctuated greatly in value, while silver was always the commercial standard.

Here are a few unclassified facts:

The total production of silver since the year 1500 is reckoned at 400,000,000 pounds.

The "ring" of silver is best imitated in a counterfeit by an admixture of powdered glass with base metal.

The silver dollar of 1804 is worth $600; the silver quarter of 1827 is worth $40; the half dime of 1802 is worth $30; the 5-cent silver piece of 1873 is worth $50, and the dime of 1804 is worth $1.

What would happen if the United States treasury threw its stock of silver on the market?

The most frightful financial panic that has ever been seen would ensue. The $500,000,000 worth of the metal now held by the treasury more than equals the present circulation of silver in the world. Such action on the part of this government, happily impossible, would almost destroy this substance as money, reducing it to the status of a base metal. After all, it is only rarity that makes value. If gold were plentiful as iron, it would fetch no higher price.

RENE BACHE.

Written for the Evening Star.

The Alarm of Fire.

I heard the fire bell tolling,
According to the law;
I looked—no smoke was rolling—
A blaze I nowhere saw.

I had been musing, dreaming,
Of one I love right well,
My brain with rhymes a-teeming,
When loudly clang'd the bell.

With high-raised window sashes,
I into night did peer;
No sparks, no flames, no flashes—
A false alarm, 'twas clear.

Then to my armchair turning,
To muse again of Maud,
I felt my heart was burning,
Though nothing burned abroad.

The fire was there, that's certain,
There long had burned with might;
But through my close-drawn curtain
It scarce could cast a light.

No breeze abroad could blow it,
For I had watched it well;
How firemen came to know it,
Is more than I can tell.

—W. ELLESS.

Literary Men as Husbands.

From the Ladies' Home Journal.

In spite of a few brilliant exceptions experience does not prove that there is much sympathy between the female and the male scholar. The literary woman who knows anything knows that he is, of all men, the most irritable and exacting. Ordinary husbands, going about among ordinary people, are entertaining and reasonable, and bring the atmosphere of actual life home at evening with them. The literary husband spends the day with himself and with books written by men who hold his opinions. He has no fresh, piquant news, and no gossip of the people they both know. He may be writing a political or a theological paper, or making a joke for a comic periodical, but all the same he is apt to be as "snappy as a bull terrier on the chain."

In Hendrick Hudson's Time.

From Puck.

First Indian Chief—"Tremendous boom in real estate! Heard about that sale of Manhattan Island?"

Second Indian Chief—"What did they get for it?"

First Indian Chief—"Twenty-five dollars, all cash—no mortgage. I can remember the time when a man could have had Brooklyn and Jersey City thrown in at that price. I tell you, things are on the jump!"

RAILROADS.

RICHMOND AND DANVILLE RAILROAD.
SAMUEL SPENCER, F. W. HUIDEKOPER AND REUBEN FOSTER, RECEIVERS.
Schedule in effect September 24, 1893.
All trains arrive and leave at Pennsylvania Passenger Station, Washington, D. C.
8.00 a.m. daily.—Local for Danville and intermediate stations, and through coaches for Front Royal and Strasburg daily, except Sunday, and connects at Lynchburg with Norfolk and Western stations westward daily.
11.01 a.m., Richmond and Danville fast mail.—Daily for Lynchburg, Danville and for principal points south on Richmond and Danville system, including Anniston and Birmingham, also Opelika, Columbus, Montgomery, Mobile and New Orleans. Pullman Sleeper New York and Washington to Atlanta, uniting at Greensboro' with sleeper for Augusta.
4.45 p.m.—Daily for Charlottesville and intermediate stations.
10.45 p.m.—Daily. WASHINGTON AND SOUTHWESTERN VESTIBULED LIMITED, composed entirely of Pullman Sleepers and Dining Cars, and runs to Atlanta, Montgomery and New Orleans, with Pullman Buffet Sleeper through New York and Washington to New Orleans, via Montgomery, and New York to Augusta. Also New York to Asheville and Hot Springs, &c. Pullman Sleeper Washington to Memphis via Birmingham. No coaches.
TRAINS ON WASHINGTON AND OHIO DIVISION leave Washington at 9.10 a.m., 4.35 p.m. daily for Round Hill, and 6.25 p.m., except Sunday, for Herndon and intermediate stations. Returning, arrive Washington 8.30 a.m., 2.45 p.m. daily from Round Hill, and 6.53 a.m. daily except Sunday from Herndon only.
Through trains from the south arrive Washington 6.43 a.m., 2.55 p.m. and 8.45 p.m.; Manassas Division, 8.45 p.m. daily except Sunday, and 8.40 a.m. daily from Charlottesville.
Tickets, Sleeping Car reservations and information furnished at offices, 511 and 1300 Pennsylvania ave., and at Passenger Station, Pennsylvania Railroad, Washington, D. C.
W. H. GREEN, Gen. Man.
W. A. TURK, Gen. Pass. Agt.
L. S. Brown, General Agent Passenger Dept. se23

PENNSYLVANIA RAILROAD.
STATION CORNER OF SIXTH AND B STREETS.
In effect September 4, 1893.
10.15 A.M. COLUMBIAN EXPRESS.—Pullman Sleeping and Dining Cars to Chicago, and Harrisburg to Cincinnati and Indianapolis.
10.15 A.M. FAST LINE.—For Pittsburg and Chicago. Parlor and Sleeping Cars from Harrisburg.
1.16 P.M. PENNSYLVANIA LIMITED.—Pullman Drawing and State Room, Sleeping, Dining, Smoking and Observation Cars Harrisburg to Chicago. Buffet Parlor Car to Harrisburg.
3.15 P.M. ST. LOUIS, CINCINNATI, AND CHICAGO EXPRESS.—Pullman Buffet Parlor Car to Harrisburg. Sleeping and Dining Cars Harrisburg to St. Louis, Cincinnati, and Chicago.
7.40 P.M. WESTERN EXPRESS.—Pullman Sleeping Cars to Chicago, and Harrisburg to Cleveland. Dining Car to Chicago.
7.40 P.M. SOUTH WESTERN EXPRESS.—Pullman Sleeping Car to St. Louis, and Sleeping and Dining Cars Harrisburg to Cincinnati and St. Louis.
10.40 P.M. PACIFIC EXPRESS.—Pullman Sleeping Car to Pittsburg, and Buffet Sleeping Car Harrisburg to Chicago.
7.50 A.M. for Kane, Canandaigua, Rochester and Niagara Falls daily except Sunday.
10.15 A.M. for Williamsport, Renovo and Elmira daily, except Sunday. For Williamsport daily, 3.15 p.m.
7.40 P.M. for Williamsport, Rochester, Buffalo and Niagara Falls, except Saturday, with Sleeping Car Washington to Buffalo.
10.40 P.M. for Erie, Canandaigua and Rochester daily, for Buffalo and Niagara Falls daily, except Saturday, with Sleeping Car Washington to Rochester.
FOR PHILADELPHIA, NEW YORK AND THE EAST
4.00 P.M. "CONGRESSIONAL LIMITED," all Parlor Cars, with Dining Car from Baltimore for New York daily, for Philadelphia week days.
7.05 (no Coaches), 7.20, 9.00, 9.40 (Dining Car), and 11 A.M., 12.15, 2.30 (Dining Car), 3.15, 4.20, 10.00, and 11.35 P.M. On Sunday, 7.05 (no Coaches), 7.20, 9.00, 11.00 A.M., 12.15, 2.