

# IT IS OUR YELLOW SLAVE

THERE IS NO SUCH THING AS PURE GOLD.

Nature's Purest, Her Virgin Gold, is Always Alloyed With Silver—There is Incalculable Auriferous Dust at the Bottom of the Sea.

C. F. Lummis writes in St. Nicholas that the only abundant metal in the world that is yellow is the most precious of them all—gold. Brass is not a true metal, but an alloy, a compound. And the color which gold shares with the sun has a great deal to do with its value. I do not think it would be possible that he should ever have come to love and admire any metal so much, to choose it for our highest currency and our ornaments, no matter how rare or ductile it might be, if it were a dark, dull, gloomy color. The human eye never gets too old to be pleased with very much the same things which pleased it in childhood; and no eye is insensible to the charm of that precious yellow.

I like sometimes to think back to the first man of all men that ever held that "rock of the sun" in his savage hand, and to imagine how he found it, and how it made his sharp eyes twinkle; and how he wondered at its weight, and pounded it with one smooth rock upon another, and found that he could flatten it. All these things come by accident; and gold was an accident that befell when the world was very young. Probably there had been a great rain that washed the comely lump from its nest in some gravelly stream-bank; and the prehistoric man, in his tunic of skins, chanced this way and found it. It may be that the poor barbarian who picked up the first yellow nugget sank with it still grasped in his swarthy fist.

We do not know even the name of the man who first discovered gold, nor where he lived, nor when. But it was very, very long ago. Before the time of Joseph and the coat of many colors gold had already become not only a discovered fact, but used in the world's trade. The early Egyptians got their gold from Nubia; so, very likely, the discovery was first made in Africa. At all events it dates back to the very childhood of the race, and before men had invented the letters of the alphabet mankind had achieved the prettiest plaything it had ever found.

All gold began in "veins" in the earth's rocky ribs, but time, with his patient hammers of wind and rain and frost, has pounded vast areas of these rocks to sand, and the gold, broken from great bands to lumps, has drifted with the bones of the mountains into the later heaps of gravel.

The processes of mining gold which still remains in its original home in the rocks are much more complicated. There is a vast amount of boring to be done into the flinty hearts of the mountains with steel drills and with blasting, and then the rock which is dotted with the precious yellow flakes has to be crushed between the steel jaws of great mills. Much of the gold that is mined, too, is so chemically changed that it does not look like gold at all, and requires special chemical processes to coax it out. In all gold mining, mercury is one of the most important factors. It is the mineral sheriff, swift to arrest any fugitive fleck of gold that may come in its way. The sluice-boxes in extensive placer mines and the "sheets" in stamp mills are all charged with quicksilver, which saves a vast amount of the finer gold dust that otherwise would be swept away by the current of water, for water is equally essential in both kinds of mining.

There is no such thing as "pure gold," often as we hear the phrase. Nature's purest, her "virgin gold," is always alloyed with silver; and the very finest is ninety-eight or ninety-nine per cent. gold. California gold averages about the fineness of our American coin—ninety per cent. of purity.

It is an odd fact that the sea is full of gold. No doubt at the bottom of that stupendous basin, which has received for all time the washings of all the world, there is an incalculable wealth of gold in dust, but the strange ocean mine is not all so deep down as that. The sea water itself carries gold in solution—a fraction of a grain of gold to every ton of water, as a famous chemist has shown.

Among the historical big nuggets found in various parts of the world there have been some wonderful yellow lumps. In Cabarrus County, North Carolina, one was found in 1810 which weighed thirty-seven pounds troy. In 1842 the gold fields of Zlatoust, in the Ural, gave a nugget of ninety-six pounds troy. The Victoria (Australia) nugget weighed 146 pounds and three pennyweights, of which only six ounces were foreign rock; and the Ballarat (Australia) nugget was thirty-nine pounds heavier yet. The largest nugget ever found was also dug in Australia—the "Sarah Sands," named for a far-off loved one. It reached the astonishing weight of 233 pounds and four ounces troy! I wonder what Miner Sands felt when he struck his pick upon that fortune in one lump!

Within the last fifty years California and Australia alone have produced more than half as much gold as the whole world had mined before Columbus. At present the United States produces over \$60,000,000 worth of gold a year, which is far more than any other country. South Africa and Australia rank next, producing each over \$50,000,000, and after come Russia, South America and Mexico. The total annual production of gold in the world is over \$200,000,000.

Yet the world is not richer in gold by all that vast amount every year. It is losing, too—an amount very trifling compared with the whole, and yet very large in fact. You hear peo-

ple wishing that they owned this rich mine or that vast fortune, but if one could have just the annual loss on the billions of dollars' worth of gold now in the world's hands there would be no need to envy Croesus. Every year an impalpable golden dust—so infinitely fine as to seem rather a vapor than a dust—is worn from all gold in use, and passes forever from our wealth and our knowledge. And in our handling, enough gold to make one person incalculably rich disappears every year, lost as absolutely as if it had never existed. So even if the world's needs of gold were not multiplying very rapidly there would be required a large annual production merely to meet this shrinkage by "wear and tear."

The quality which makes gold the most valuable of the metals is its ductility. The cunning hammer of the smith can "teach" it almost anything. The more stubborn metals crumble after they have been reduced to a certain point of fineness, but gold can be hammered into a sheet so infinitely fine that 282,000 of them, piled one upon the other, would be but an inch thick! And a flake of gold tiny as a pinhead can be drawn out in a spider-thread—to a length of 500 feet.

There is no end to the uses of gold. They broaden every day. In one of its many forms our Yellow Slave helps us in almost every art and walk of life. It is as necessary as its red fellow-servant, fire—and a better in one way, since, unlike fire, it can never become "a bad master," except through our own fault.

**German Secret of Success.**  
The magnificent organization of trade and technical schools in Germany is three generations old. Our competitors are not content with what exists. They are incessantly employed in perfecting their practical equipment. How can we expect to compete with a country where thousands of apprenticed clerks, the business directors and commercial travelers of the future, attend their continuation school for two hours in the morning from 7 o'clock to 9? Then they go to their offices, and long before attaining their majority they are proficient in at least a couple of living languages, have a thorough grasp of the whole theory and practice of foreign trade, and, above all, in their own special line have got quite to the bottom of their business. Between fifteen and nineteen with us the State knows next to nothing of its youth, though that is the very period in which permanent character and faculty are shaped. The thousand boys who might have become technical experts or commercial travelers as fluent and persuasive as their Continental rivals in as many tongues, would be worth a million of the elementary instructed, who retain little more on the average than a strong taste for cheap fiction. Our expenditure upon education is largely a colossal waste, and our failure to provide a secondary system such as can alone bring the seed to harvest is a national disaster and a national disgrace.—London Telegraph.

**Schoolboy Definitions.**  
Q. "Who discovered the law of gravity from the fall of an apple?"  
A. "Paris."  
Q. "What is a sarcasm?"  
A. "A sore on your body."  
An "antiquarian" is "a place for animals," "harlequinade" "a kind of drink," "a dilemma" "a medicine," "citadel" "a sort of chief policeman," "neutral" "a kind of reptile" and "eulogy" a chap who feels bumps on your head.

"Juggernaut, a mountain in Switzerland," "glacier" as "a mender of windows," "prig" is "a little boat" and the ostrich is "distinct."  
"Sapphira was a high priest."  
"Chamois are a kind of big fleas."  
"The Milky Way" is "the thick creamy stuff on the top of the milk."  
"Tableaux vivants" means "hotel dinner."  
"Elopement" is "the opposite to allopathy."  
—Collection made by a London Head Master.

**Eggs For Market.**  
Possibly there is truth in the published statement that a majority of New Yorkers will not buy perfectly fresh eggs if they can obtain those that are about a week old. That may account for the signs in the shops—"Fresh," "Strictly fresh" and "Twenty-four-a-quarter." One of the 6000 egg candlers in New York says: "The only eggs that are really fit to eat are speckled. The quail egg comes first then the guinea egg and then the turkey egg. Even a suck-egg dog avoids duck eggs. It is strange that more guinea eggs do not come to market. Turkey eggs are too valuable for breeding, though I could name two millionaires in the 'Highlands of Fifth Avenue' who pay \$1 a dozen for them and always have some in the pantry. The law is dead against robbing quail and partridge nests. One of the delicacies much sought after is a mess of plover's eggs. About three dozen make a meal."—New York Press.

**Troubles That Never Happen.**  
As the story runs, once there was an old man, broken by years and wrinkled by worries, who laid him down to die. Summoning his seven grown children to his side he delivered feebly to them with his parting breath this last message:  
"My children, I have lived long, toiled hard and worried much. But as I look back upon my life I find that my greatest troubles have been those that never happened."  
In other words, the good man had spent much of his time in crossing bridges that he was never to reach—in borrowing trouble that he was never to experience.—New York World.



## Benefit to the Farmers.

**T**HE question is often asked your Commissioner how the stone roads are of any particular benefit to the farmer, and whether the increased taxation resulting from the building of them does not amount to more than the advantages gained.

This question is more easily answered, says the fifth annual report of the New Jersey Road Commissioner, by citing the practical results in some sections of the State. Gloucester County and the southern part of Camden County are great producers of watermelons, tomatoes, white and sweet potatoes and many other varieties of fruits and vegetables so largely sold in the city markets.

Before the advent of stone roads the leading highways not graveled were almost a bed of sand, through which teams struggled with forty to fifty baskets of produce to the Philadelphia market. The roads were so heavy the farmers were largely forced to ship by railroad and by boats passing down the numerous creeks that intersect this portion of the country. The expense on the few baskets they were enabled to carry from the farms to the city were so great they found it much cheaper to send by car or boat.

Now, since the leading roads have been macadamized toward the Gloucester City ferry, there are from 1600 to 1900 teams a day passing to and fro on this ferry, where probably from 200 to 400 was the maximum before. These teams now carry from 130 to 175 five-eighths bushel baskets of vegetables and fruits, while before they only carried from forty to fifty baskets. They are now carting to market instead of sending by boat, as they once did, and returning with three and five ton loads of manure. Their reason for so doing is that they effect a very large saving. Their experience is that the average basket of fruit or vegetables sent by boat to Philadelphia markets costs from six to eight cents a basket; the items of expense by boat are two cents for attendant, and one and two cents for carting in city; total, seven to eight cents; then, if the commission be added, it would average three to four cents more; total, eleven to twelve cents. By carting an average load of 150 baskets the farmer saves by the use of his own team about \$10 a day, so if he were to cart about five days in a week there would be a saving of \$50 a week, less the ferry expenses of seventy-five cents a day. Another advantage consists in the produce being landed at the commission or consumer's door, thus being in a much better condition for sale than when going through its different stages of handling to and from the boat or cars and the rough usage of carting to the consignee's door. Then the farmer by marketing his own produce very often saves the commission by being enabled to directly dispose of it to the consumer. The charge of selling is ten per cent.; on an average load of 150 baskets the commission would be somewhere in the neighborhood of \$6. This, added to the \$10 saved in transportation, swells the saving to \$16 on each load.

This calculation seems large, but if it were one-half realized it shows how the stone yards benefit the farmers. The result has been, where the early opposition of the farmers of Gloucester County was marked by the sending of numerous petitions and petitions to the Legislature to have the stone road law either abrogated or the mandamus or forcing clause stricken out, that applications are being rapidly substituted for the remonstrances, making it impossible with the limited appropriation to come anywhere near meeting their petitions.

Another one of the results is that the farmers are rapidly buying larger, heavier wagons with broad tires, and if the present rate of increase keeps on the capacity of each wagon will be almost equal to that of the small boats formerly used in this carrying trade.

**The Sand Road.**  
Shade harms a loam or clay road, but improves a road of sand or broken stone, since it prevents the evaporation of the moisture from the road-bed. Therefore a sand road can be permanently improved by planting trees so as to shade the traveled way. They will prevent, in part, the drying effect of the winds, as well as intercept the rays of the sun.  
A road on pure sand is improved temporarily by covering it with a thin layer of any vegetable fibre, as decaying leaves, straw, marsh hay, waste from sorghum mills (bagasse), fibrous or string-like shavings, etc. This fibrous material soon becomes incorporated with the sand and decreases its mobility. The vegetable matter decays and wears out, and consequently the effect is comparatively temporary. The length of time such expedients will last depends upon the climate and the amount of travel. Sand roads improved with three to four inches of shredded wood (excelsior) have kept in reasonable condition for a year or two.

The only thorough and permanent improvement possible for a sand road is to add a layer of tough clay and incorporate it with the sand. This is expensive at best, and it is difficult to get the sand and clay thoroughly incorporated in the right proportions.

Emigration from Germany has fallen from 171,000 in 1883 to 21,000 in 1900.

## TINTINNABULATION OF THE STREETS

Nearly Every Bell Now Means "Jump For Your Life!"

In the steady volume of the noises of the street the bell has become the insistent characteristic—the jingling bell, the tinkling bell, the sweet bell jangled out of tune—above all, the peremptory clang of the warning gong. It is not so very long ago that the bells of the street were few and readily understood. There was the gypsy chime of cowbells swinging on a leather belt supported by uprights on a pushcart. Its not inharmonious jangle meant old rags as certainly as the blast of the horn meant Friday fish. The clangor of the brazen handbell, the large dinner bell, pealed in a sort of march tempo, was a sure indication of the passage of the scissors grinder, with his wheel upon his back and bell in hand, looking for the chance to renew the edges of domestic cutlery.

Every horse on every street car wore a bell at his collar, and the rhythmic jingle was no unpleasant accompaniment to the flinty beat of iron shod hoofs in measured intervals upon the cobble.

Now the bells have only one message, and a stern one, "Get out of the way!"—a message such as may be read where country turnpikes cross the tracks under the warning gibbet, with its inscription, "Look out for the locomotive when the bell rings." The strike of every bell upon the streets in this high speeding age means "Jump for your life!" With clang and clatter the electric car whizzes past, and before the warning has ceased to ring in the ears will be a block away.

Still more peremptory are the ambulances, whose rubber tires bring them, scarcely heard, right down upon the wayfarer before their gong goes off with the rattle of all the watchmen of antiquity rolled into one. Still more stealthily in its approach is the bicycle, with the weaker demand of its continuous performance bell for the right of way, but foot travel has become habituated to the wheel, and is disposed to insist upon some such rule as secures the right of way at sea to the windjammer over the steamer.

The latest bell to come upon the streets is that which marks the coming of the automobile. Some of these shrill pipe of the whistle of steam or compressed air, but others have a distinctive chime of two notes, like some church clock striking the half hour. For no worse sin than ringing the bells of his parish church John Bunyan saw the red-hot gates of hell yawning open for him. Just think what a doom-sealer he would be were he to listen to the bells of the street.—New York Tribune.

**"Throw Out the Life Line."**  
"At Nantasket Beach," writes John R. Clements in the Christian Endeavor World, "I one day visited the life-saving station," said Rev. E. S. Ufford, "and I had shown to me for the first time a life-line with its silken strands, and had its uses minutely explained to me; the story of a wreck on this dangerous coast was at the same time related by a friend. These two incidents formed the basis of the song."  
"A title, you know, has much to do, many times, with the success of a composition. It not only impresses the author, but it catches the ear of the public. So in this case, when the four words, 'Throw out the life-line,' came to me, I had my inspiration. The sentence stayed with me, and I could not have thrown it off, had I been so inclined."  
"On reaching home I took paper and pencil, and wrote down the words hurriedly; then, seating myself at the instrument, I seemed to play the tune without any effort. I do not think there was more than fifteen minutes consumed in the production of both words and music. They seemed ready, I had only to write."

**A Plan For Single Beds.**  
Two in a bed is the usual custom of sleeping, in the United States at least, and also in Canada and England. But in German and France, says Good Housekeeping, single beds are the rule. The latter plan is more healthful and comfortable. It is gradually coming into use in this country. Single beds involve more linen, more work in making beds and more washing, but I never knew a family to return to the old plan after once giving single beds a fair trial. Especially in summer is the single bed to be preferred, or even sleeping on the floor, to two in a bed. Many families declare they never knew what comfort was, during the hot summer nights, until they adopted the single beds. I might add a word of protest against allowing babies or young children to sleep with old people. The latter certainly draw upon the vitality of the former. This is probably true as between any bedfellows one of whom is sickly or less strong than the other. Consumption and other diseases have often been communicated from one bedfellow to another.

**Suck Pin in a Chicken.**  
A. M. Clark, of Girard, Erie County, killed a chicken for his Sunday dinner, and discovered something quite unusual in the history of poultry. In cleaning the bird his hand was somewhat injured by coming in contact with a sharp instrument which protruded through the gizzard. When that organ was removed and cut open it contained a gold stick pin which Mr. Clark had lost about a year ago. The pin had worked through the side of the gizzard and fully half an inch was on the outside, while the balance was inside. The gold head was unharmed. The chicken seemed to be in perfect health, and evidently enjoyed the diet.—Pittsburg Chronicle Telegraph.

Last year Germany imported from Italy \$2,500,000 worth of grapes for table use.



New York City.—Tasteful, comfortable breakfast or morning jackets are essential to every woman of taste. The novel May Manton design illus-



BREAKFAST JACKET.

trated combines all the essential features, is loose enough for comfort, yet graceful and becoming. The original is made of India silk showing blue figures on a white ground; but washable materials and soft, simple woolen fabrics are equally appropriate.

The full fronts and back are simply gathered and joined to a square yoke of lining or to the fitted lining that extends to the waist. The deep yoke shaped in effective scallops is included with the box pleat that closes the fronts, but the lower edges may be finished free with bolero effect or stitched over the gathers if so preferred. The fulness is gathered at the waist line in back and a ribbon

tucking for yoke and front will be required.

The eminently smart skirt illustrated shows a novel arrangement and one that is admirably suited to the soft clinging wool and silk materials now in vogue as well as to the innumerable washable fabrics offered. The skirt is cut in seven pieces and is laid in three narrow tucks at each front and side seam, the fulness at the back being laid in an inverted pleat. The flounce is tucked at the upper edge, but falls in graceful folds as it approaches the floor.

To cut this skirt for a woman of medium size, eleven and three-eighth yards of material twenty-one inches wide, eight yards thirty-two inches wide, or five and three-quarter yards forty-four inches wide will be required, with ten yards of applique, and lace squares according to size to trim as illustrated.

**Mink Cape For the Duchess.**  
The women of Ottawa are to present to the Duchess of York upon the occasion of the royal visit to the capital a gift that is thoroughly typical of Canada. It is a cape of the finest mink procurable. The collar and flare around the edges will be lined with ermine, while the body of the cape will be lined with white satin. The garment, which reaches to the knee, is fastened with gold clasps fashioned in the form of a maple leaf, the emblem of the Dominion. The gold for these clasps comes from the Canadian Yukon.

**A Tint Much Worn.**  
Apricot, a soft and generally becoming tint, is much worn in Paris



FANCY WAIST AND TUCKED SKIRT.

passing around the waist confines the fulness in front.

The sleeves are in bishop shape, but finished with turn-over flare cuffs. At the neck is a turn over collar that is high enough for style yet soft and eminently satisfactory to the wearer.  
To cut this jacket for a woman of medium size four yards of material twenty-two inches wide, two and three-quarter yards thirty-two inches wide or two and one-eighth yards forty-four inches wide will be required.

**A Charming Costume.**  
Combinations of tucked with plain material, of cream lace and white fabrics, are in the height of style and appear to gain favor week by week. The very charming May Manton example illustrated in the large drawing shows fine batiste with cream Cluny lace, the insertion run with narrow black velvet ribbon; but the design is equally well suited to various other materials.

The foundation is snug fitting and closes at the centre front. When a diaphanous effect is desired it is well to make it of the material or of mousseline. The yoke front and sleeves are of tucked material. The back yoke is faced onto the lining, but the front is separate and closes at the left shoulder and beneath the fronts proper. The blouse is plain at the upper portion with scant fulness in back and gathers at the waist line in front. The fronts part slightly at the centre and turn back to form pointed revers. The sleeves can be in elbow or full length as preferred. The neck is finished with a stock that should be lined only with the material and stiffened with wire to be in the latest style. It closes with the yoke fastened at the left shoulder.

To cut this waist for a woman of medium size, one and seven-eighth yards of material twenty-one inches wide, or one yard thirty-two or forty-four inches wide, with one and three-quarter yards of tucking for yoke, front and sleeves, three and five-eighth yards of insertion and one yard of edging to trim as illustrated. To make with sleeves of plain material, three and a quarter yards twenty-one inches wide, one and three-quarter yards thirty-two inches wide, or one and a half yards forty-four inches wide, with three-quarter yards of

and in combination with creamy lace and a touch of black velvet it is exceedingly effective.

**Favorite Color Combinations.**  
Black and pale blue is a combination that this season has divided favor with the ever popular black and white.

**Woman's Walking Skirt.**  
The smart, well cut walking skirt that comfortably clears the ground has become a necessity and makes part of every wardrobe. This graceful, becoming model is the very latest May Manton that has appeared and includes many desirable features. The back is cut with the new ripple that falls in graceful folds from a few inches below the belt, and the flounce means both flare and freedom. The original is made of homespun in mixed shades of brown and tan, but all checks, chevrons and skirting materials are appropriate.

The skirt is cut in five gores the side gores being narrow and is without fulness at the belt. The flounce is graduated in width and is seamed to the lower edge. At the right side is placed a patch pocket with a turn-over flap.

To cut this skirt for a woman of medium size six and one-eighth yards



WALKING SKIRT.

of material twenty-seven inches wide, three and seven-eighth yards forty-four inches wide or three and three-eighth yards fifty inches wide will be required.