PE 1127 .S3C5 Nº 14





Book \_\_\_\_\_

COPYRIGHT DEPOSIT





Water Programme, P. My vanie

# GOLD

COMPILED BY WORKERS OF THE WRITERS' PROGRAM OF THE WORK PROJECTS ADMINISTRATION IN THE COMMONWEALTH OF PENNSYLVANIA

JUNIOR PRESS BOOKS

ALBERT WHITMAN CONCRETE OF CON

PENNSYLVANIA DEPARTMENT OF PUBLIC INSTRUCTION
State-wide Sponsor of the
Pennsylvania Writers' Project

FEDERAL WORKS AGENCY
John M. Carmody, Administrator

WORK PROJECTS ADMINISTRATION
F. C. Harrington, Commissioner
Florence Kerr, Assistant Commissioner
Philip Mathews, State Administrator

COPYRIGHT DEPOSIT.

Co-sponsored and copyrighted, 1940, by Division of Extension Education
Board of Public Education, Philadelphia
RECEIVED

NOV - 1 1940

COPYRIGHT OFFICE

#### FOREWORD

Gold is the fourteenth of thirty booklets in the Elementary Science Series. It was prepared by the Philadelphia Unit of the Pennsylvania Writers' Project, sponsored by the Pennsylvania Department of Public Instruction.

This booklet, written by Mark Bartman, was edited by Katharine Britton of the Editorial office.

Acknowledgment is made to Samuel G. Gordon, Associate Curator of the Department of Mineralogy, the Academy of Natural Sciences of Philadelphia, for acting as consultant to assure accuracy of the text and illustrations.

Illustrations were prepared by David Cain and Herbert Palmer of the Pennsylvania Art Project, under the direction of Michael Gallagher.

C. C. Lesley
State Supervisor



FOR MANY HUNDREDS OF YEARS WISE MEN WORKED IN SECRET TO FIND THE PHILOSOPHER'S STONE THAT WOULD TURN OTHER METALS INTO GOLD.

# GOLD

Everyone knows that gold is just a metal. But how different it seems from other metals, such as iron, or tin, or copper. Just whispering the word under the breath — "Gold" — is enough to fill the mind with strange and exciting pictures. Tales of the hardships of men who looked for gold, and the joy of those who found it, come rushing back from memory.

Men have left their homes and adventured in far places to search for gold. They have robbed and cheated and killed for gold. They have gone to battle for the shiny yellow metal. They have lost

their lives for it.

Why do men follow the gleam of gold into hardships and dangers that drain their strength and try their courage?

Why are they willing and eager to risk their lives and their honor to gain it? Because gold will make them rich, we say. But why does a bag of gold make a man rich when the same amount of iron does not?

The reason is simple. Since the bright yellow metal was first discovered, men have loved to look at it and longed to own it. Because it was so desired and so hard to get, its value became great. One man would give another man a great deal of food or clothing just to get his hands on a little of that beautiful bright yellow stuff.

## DISCOVERY OF GOLD

Gold was probably the first metal used by men. Perhaps some other duller metals were discovered in rocks just as early as gold, but at first men saw no purpose in digging for those. A long time passed before they found out that the duller metals could be made into many useful things — into tools and weapons and machines. But gold was different. Gold did not have to be made into useful things. It was sought for its beauty alone.

No one really knows how gold was first found, but it is easy to imagine the story. Picture a man, dressed only in skins, walking home from a day's hunt for food. He passes along the banks of a stream. As the sinking sun strikes the water and the ground around it, something bright catches his eye. Excited, he bends down and scoops up some of the sand. There in his hand are several small shining pieces. Surely these beautiful yellow things cannot be ordinary stones! Delighted, the man carries them home to his people.

The next day the men of the tribe go back to the creek to hunt for more of the beautiful stones. They are not so lucky as the first man was. There is more gold there, but only in bits no

bigger than grains of sand. With great trouble the men pick these yellow grains from the river mud. It takes a great deal of time to get just a little gold, and so even a little of it is a great prize. Soon gold is more valued by all the members of the tribe than any other material.

In some such way, no doubt, men first stumbled upon gold thousands of years ago, just as white men did much later in America. Of course, gold was not found only by one man. It was discovered in many parts of the world at different times.

### EARLY USE

For long ages gold was used simply as ornaments. People used to tie a number of small pieces of it together with animal skin to make a chain. Then they hung the chain around their necks or wrists or ankles. They were very simple people, these men who lived so long ago.

They had not yet found out how many things could be done with their gold.

And then at last men began to discover, often by accident, some interesting facts about gold. They noticed that it did not break like stone even if it was hit very hard with something heavy. It just became a little flatter. It was not hard like stone. By hammering, men could actually change the shape of a piece of gold.

After another long time, men found out something even more important. Gold became softer when it was heated. Shaping was much easier when that was known. Men could soften a bit of gold over a fire, and twist or bend it into a

ring or a pretty little charm.

Now men were on the road to a discovery that made it possible to shape gold in almost any way they wished. Perhaps the discovery was made by chance when some men were trying to get their gold very hot and very soft to

shape it easily. Or perhaps they had an idea that if the gold was heated enough something interesting might happen. At any rate, it was found that when the gold became very very hot, it finally melted as ice melts in the warm sun. When the gold cooled off it became hard again.

Think of the excitement of the men who made this discovery! What beautiful things they could have now! They learned to make molds of dirt, and into these they poured their precious glowing melted gold. When the gold cooled, they broke away the molds. And there was a tiny golden cow, or sheep, or whatever shape they had planned.

There were other ways, too, in which melted gold was used. Articles of stone were dipped in it to give them a shining yellow coating, or sheath. Sometimes while the gold sheath was still hot and soft, designs and pictures were cut into it.

Stone knives made in this way were

dug up just a few years ago from the earth where they were buried a long time ago. The gold coverings of these



PEOPLE LEARNED TO MELT GOLD AND MOLD IT INTO MANY SHAPES, SUCH AS THIS LITTLE GOLDEN GODDESS OF JAVA.

knives are ornamented with figures of women, animals, snakes, boats, and many other things. Men who have studied



THIS EGYPTIAN PICTURE WRITING SHOWS A MAN WEIGHING GOLD.

them carefully say that they may be fifteen thousand years old.

Perhaps even as early as that gold was known in many parts of the world. We do not know. We can only piece together the story of early times from

things found in the earth, and from the few records that remain today.

The Egyptians, for instance, who were the first people to write, began by cutting pictures of their doings on rock. Some of these rocks, carved almost six thousand years ago, have pictures of gold mining. Many of the gold ornaments found in Egypt are even older than that, and others are not quite so old.

From the Bible we learn that the Jews also used gold long before Christ was born. They had even learned to beat it into thin plates and cut it into wires.

# KING MIDAS

By the time men began to write history, gold was of great value in a large part of the Old World. So it is not surprising that many of the stories told by people of those times were about the search for gold, or the desire for gold.

Probably the most famous of all is the

tale of King Midas, who ruled a country in far away Asia Minor more than twenty-five hundred years ago. It is said that Midas befriended Silenus, the teacher of Bacchus, god of wine. So one night while Midas slept, Bacchus appeared before him.

"Hear me, Midas," said Bacchus to the frightened king. "You have done good to someone whom I love. Now I shall return the good. Only let me know your wish, and it shall be granted."

Midas saw that riches beyond his dreams were his for the asking. Should he wish for a room full of gold? Fifty rooms full of gold? No, he could do much better than that. He could wish that everything he touched would turn to gold. Then his riches would never end.

When Midas told Bacchus his choice, the god of wine gave him a chance to change his mind. But Midas insisted, and so the wish was granted. When Midas awoke, the clothes he wore and the bed he slept in were all of gold. At first he was very happy. Excitedly he touched the flowers in his room, the chairs, the tables. All turned to gold. He would be the richest man in the world. In a glad voice he called for his breakfast. But when he raised the food to his mouth to eat, his happiness fled. Even his food had turned to gold! Fearfully he seized a cup of wine, and that too turned to gold.

Then Midas saw that gold could be a curse. In a loud voice he called upon Bacchus, begging him to return and take away the evil gift. Bacchus answered the prayer. He told Midas to go and bathe in the Pactolus River and he would be all right again. Ever after, the story says, the Pactolus River had sands of gold. And even to this day, if a person is always successful in business, we say that he has the Midas touch.

#### **ALCHEMY**

But while the desire for gold could be a curse, that did not stop men from looking for it. And in some ways this search had good results. Though it did not always lead to the discovery of the pre-



THIS GOLDEN BUCKLE WAS MADE IN ENGLAND MORE THAN THIRTEEN HUNDRED YEARS AGO.

cious metal, it did lead to the discovery of new ideas and new lands.

For instance, our science of chemistry, the study of what substances are made of and how they act, grew out of the old science of alchemy. And alchemy grew out of the desire for gold.

Alchemy had as one of its chief aims the making of gold from other metals. Always there are some men in the world who dream of easier and faster ways of doing things. Men of this sort said to themselves, "Suppose we didn't have to dig in the ground for gold, or sift it from river sands? Suppose, indeed, we could actually make gold!" And they set about trying to do just that. If they could learn the secret of making gold, they would hold in their hands the very secret of nature itself, and its way of creating things.

These old alchemists had a very strange idea about how the less precious, or imperfect metals, as they called them, could be changed into the perfect gold, the King of Metals. They thought there was a substance called the Philosopher's Stone. The Philosopher's Stone was present in everything, they believed. They had only to find a way to get it out of things. With this powerful aid,

gold could be made even from lead. Not only that, the Philosopher's Stone would cure sickness, and it would bring eternal life.

So for many hundreds of years wise men of each age searched for the Philosopher's Stone. Most of their work was done in secret, for no one wanted to share with another person any discovery he might make. Of course, the alchemists did not find the Stone, for there was no such thing.

But their work was not entirely wasted. Though they did not learn how to make gold, they learned a number of other things. They learned how to make medicines. They learned what happened to different materials when they were heated. They learned that if certain things were mixed together, sometimes strange changes took place in them. Most important, they found new ways of studying materials. And many of their discoveries and their methods of working

were finally used to build the science of chemistry. That was just one way in which the desire for gold helped men to learn more about the world in which they lived.

Chemistry taught men that the Philosopher's Stone was just an idle dream, and the practice of alchemy died out. But a few years ago chemists began again to work on the idea of changing one metal into another. They have succeeded in doing this in some cases, though they have not yet made gold except in very tiny amounts. The difficulty of making one metal from another is still so great that it does not have any value for ordinary people. But as chemists learn more and more, perhaps some day they will be able to change metals just as they wish.

# THE SEARCH IN THE NEW WORLD

Just about the time that men were beginning to believe there was no Phi-

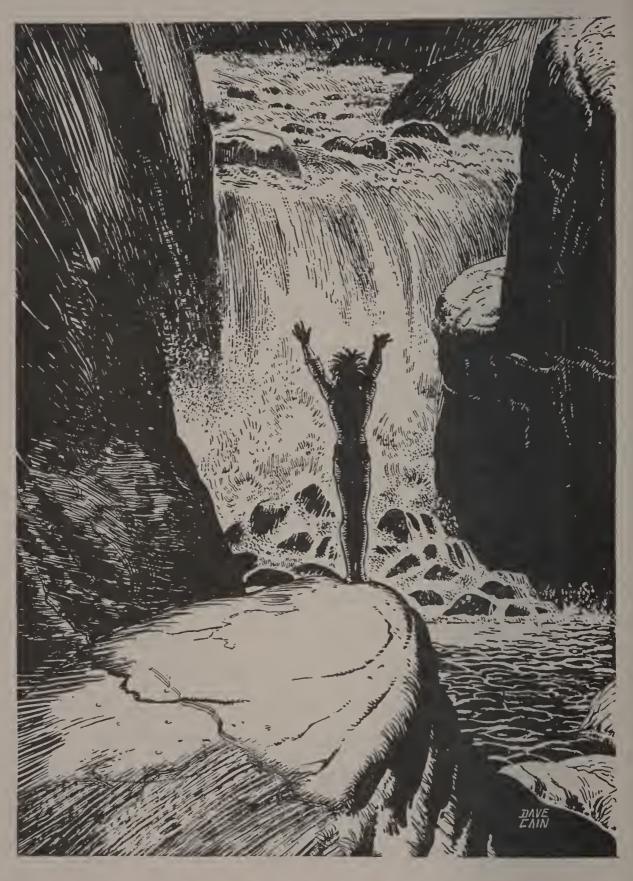
losopher's Stone to be found, they began to make a different kind of search for gold. That was more than four hundred years ago, soon after America was discovered by the men of Europe. Already the explorers were carrying back across the Atlantic Ocean strange tales of the New World, told by the Indians. The tales excited the spirit and the desire of those who heard them. There was gold to be had in this new land, gold for those who were brave enough to fight for it. So many men got ships and sailed away in search of it. Some of them died, but some of them did return with riches beyond their dreams.

One of the Indian tales spoke of a rich land in Central America, where there was a temple lined with gold. So party after party of adventurers set out to find it. There was a river by which the land could be reached. Up this river brave Balboa, the Spaniard who discovered the Pacific Ocean, led 160 men.

But they were turned back after fierce fighting with the Indians, as many other search parties were later.

Even the river did not seem willing to let strangers pass. If the Indians did not defeat them, the river barred their way by floods. The Spaniards grew fearful. The native gods must be protecting their temple of gold from thieves. But at last two parties of explorers did reach the goal. They found no golden temple, but they did find enough gold to make them rich.

Probably the land that drew most adventurers was El Dorado, the home of the Golden Man. So famous was it that it came to mean any land-of-dreams-cometrue. But at first there was only El Dorado, and that was in South America. So much gold was there, the Indians said, that in a great festival every year the chief of the tribe was carried in a barrow of solid gold. And that wasn't all. His naked body was covered with



THE CHIEF LEAPED INTO THE RIVER, WASHING OFF THE GOLD AS AN OFFERING TO THE GODS.

sticky gums and rolled in gold dust. Then the chief leaped into a certain river, washing off the gold as an offering to the gods, while his people on the shore threw more gold and many jewels into the water.

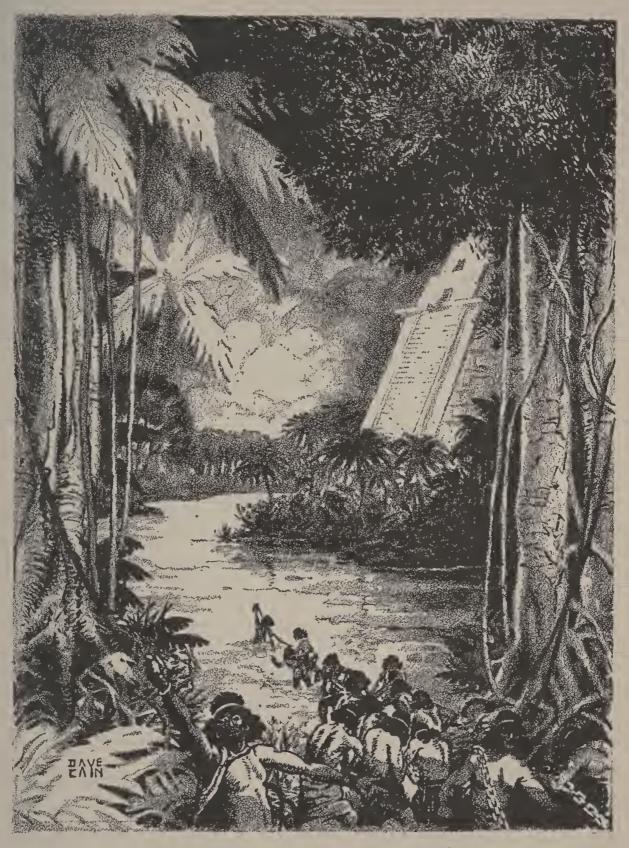
Hundreds of men searched for El Dorado but did not find it. At last one party reached the promised land, after many hardships, only to be disappointed. The great festival had not been held for many, many years, and the Indians had hidden most of their gold.

Many of the lands about which the Indians told were never found. But one was found, and it gave more wealth than had been dreamed of. This was the old, old city of Cuzco in Peru, home of the Inca Indians. Here was the Temple of the Sun, supposed to have been built hundreds of years before by the child of the sun-god in whom the Incas believed.

In the main hall of the Temple was a solid gold statue of the sun-god. The door posts were made of gold, and the walls were covered with round golden plates. A door of silver led into the hall of the moon goddess, the wife of the sun-god. Here all decorations were of silver and other white metal.

It was the Spaniard Pizarro and his men who found Cuzco and captured the Inca chief, Atahualpa. Atahualpa told the Spaniards that if he were freed, he would fill a huge room with gold for them and fill it twice with silver. Pizarro promised him his freedom. But when the tribe had collected the metal, Pizarro killed the chief.

It is said that the Incas were bringing a great golden chain to add to their chief's ransom when they heard of his death. They threw the chain into a river, and men have been looking for it ever since. But Pizarro did not need the chain. From the ransom already given him by the trusting Incas he got more than eight million dollars in gold,



WHEN THE INCAS HEARD OF THEIR CHIEF'S DEATH, THEY THREW THE GREAT GOLDEN CHAIN INTO THE RIVER.

and about one and one-half million in silver. Each of his soldiers, besides gold and silver, got 200 slaves.

Like alchemy, this search in the new world had some value even when no wealth was found. Both North and South America might have waited a much longer time to be explored and settled if men had not been led always into new places by the desire for gold.

## GREAT GOLD DISCOVERIES

If all the gold found by the early explorers were gathered together, the amount would be small compared with that of a find made in the Far West in 1848.

In central California stood the sawmill of John Sutter, who owned a great deal of land in that area. One day a worker in Sutter's Mill was cleaning the trough through which the water ran from the mill back to the stream of a creek. He saw a glittering speck lying in the bottom of the trough.

It was gold.

Then the creek was searched, and the



IN CENTRAL CALIFORNIA STOOD THE SAWMILL OF JOHN SUTTER.

land on both sides of it. Both were rich in gold. There was gold in California! The search for more began.

Like fire the news spread, over the Rockies, across the continent, down into Mexico and South America, across the ocean.

From all over the world gold hunters, called prospectors, hurried to the California gold fields. Some had to come by boat around the southern tip of South America. Some came across the conti-



AN INDIAN LIES IN WAIT AS A TRAIN OF COVERED WAGONS WINDS ALONG THE TRAIL TO CALIFORNIA AND GOLD.

nent by covered wagon, by horse, by mule, by cart. Some trudged across the desert, step by step, on foot. Many were killed by cold or by the desert's heat, or by Indians.

The great gold rush had begun. In

1850 California produced as much gold as the entire world had produced in any

one of the ten years before that.

But John Sutter shared in none of this wealth. The prospectors overran his farm, killed his cattle, took his land from him. And while California grew rich, John Sutter came back to the East, a poor and weary old man.

In 1850 gold was found in Australia, and new discoveries were made in Russia. And then, in 1859, a great discovery was made again in America, in Nevada. This gold field was like an underground river of gold flowing through rock for four miles. The vein of gold, called the Comstock lode, was more than half a mile wide in the central part. During the next sixty years, over 470 million dollars' worth of gold was taken from this lode.

The most important gold discovery of all time was made in 1884 in South Africa. The field is very large, and since 1913 it

has been producing nearly half of the

world's yearly gold supply.

Those are only a few of the gold discoveries made during the last half of the nineteenth century in different parts of the world. And always excited gold rushes followed the discoveries, and people moved by thousands to the places where they hoped to find riches enough to live a life of ease.

#### PROSPECTING

When a prospector joined the gold rush to California, or Australia, or Alaska, he knew only that some gold had been found in those places. He hoped there would be more, but he had no way of knowing where to find it. He had to wander from place to place in search of his El Dorado. Often he had only a pickax, a shovel, a pan, a mule and some food. Sometimes he spent years and years looking for a "strike," for a lucky finding of gold.

Most of those who searched found nothing but hardships. They were poor all their lives, living only on "grubstakes," that is, loans, and the hope that somewhere, someday, they might find gold.

When a man made a strike, he filed a claim.

That means he sent the government a paper saying that he wanted this piece of land and had a right to it because it belonged to no one else. He marked the land with stones, or sticks driven into the ground, and claimed the land as his own. Then he went about gathering pieces of rock or sand that contained gold. These he sent to a man who tested them to find out how much gold there was in each sample.

Sometimes the report on the samples showed that there was enough gold to make it worth while to dig out the rock or sand and take from it the hidden gold. Then the prospector began to work

his claim. Often the report said that there was very little gold in the rock. Then the prospector returned to his weary search.

Sometimes confidence men — that is, cheats — fooled someone into buying a piece of land for a great deal of money by telling him there was a lot of gold in it. One of their tricks was to mix a little gold with the powder from a shotgun and shoot the gold and powder against a rock. Of course, a test of that rock showed a large amount of gold. The man who was being cheated thought that all the land had that much gold. So he bought the land. Then the confidence man disappeared, and the buyer had only a few acres of land, which perhaps could not even be farmed.

There was one way in which nature itself fooled the prospectors. Sometimes a man came upon a kind of mineral that was yellow and gleaming, just like gold. But a test showed that it was actually

iron pyrites, a material that had very little value. Many a prospector was fooled by this into thinking he had made a strike. And so iron pyrites came to be called fool's gold.

#### PLACER MINING

Gold found in the sand and gravel of streams is easy to mine. Nature already has done most of the work. Wind and water and air have worn the gold from the rock where it once lay, and carried it into the streams. There it sinks to the bottom, because it is twenty times as heavy as the water.

This surface gold may be in tiny grains, smaller even than grains of sand. But sometimes the pieces are as large as pebbles, or even larger. These are called nuggets. The largest nugget ever found weighed 183 pounds, as much as a full-grown man. That was important enough to deserve a name, and so it was called

the Welcome Stranger.

Usually river gold is pure, though sometimes it is mixed with silver. The miner only has to wash it from the sand. He scoops some water, with sand and



THIS IS A GOLD ROCKER, A SIMPLE MACHINE TO TAKE THE PLACE OF THE PAN IN PLACER MINING.

gold, into a pan. Then he shakes the pan, and stirs up the sand and water. The heavier gold sinks to the bottom. Some of the sand and water are tossed out of the pan. Then the miner scoops

up more water, shakes the pan again, and more sand and water fly out. At last all the sand and water are gone. All the gold that was in the sand lies in gleaming specks at the bottom of the pan. This is called panning, or placer mining.

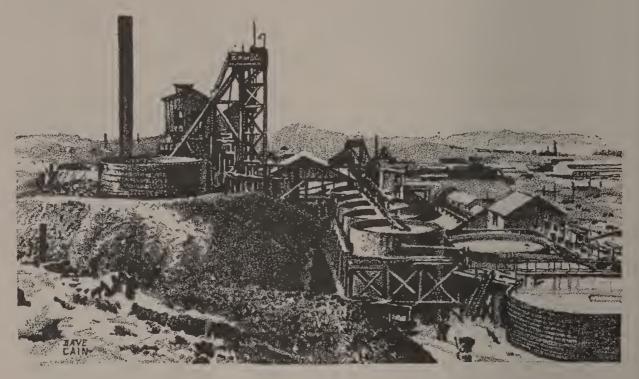
All placer mining used to be done by hand with a simple iron pan. Today machinery is used. Great beds of gravel are washed away quickly by powerful streams of water from a large hose somewhat like those used by fire companies. This large hose shoots out water with such great force that it could kill a man as far as two hundred feet away.

## GETTING GOLD FROM ORE

Placer mining was the only kind of mining known to people of long ago. They took only the gold that they could find lying right on the ground before their eyes. But most gold is buried in rocks underground. Men had to learn

to mine this gold ore just as they did coal, or iron, or copper ore. This is called lode mining.

In lode mining, tunnels are dug into



THIS IS THE OUTSIDE OF A LARGE GOLD MINE IN SOUTH AFRICA.

the earth. Sometimes these tunnels extend more than a mile underground. Into the darkness the miners go, with little lights on their caps, and with picks and shovels.

First the rock must be broken from the sides of the tunnel. Today some of



THE MINER SCOOPS SOME WATER, WITH SAND AND GOLD, INTO A PAN.

this digging is done by machinery. As more and more gold ore is dug out, the tunnels grow longer and branch out in different directions, like underground streets following the lode of gold. The



THE GOLD ORE IS BROKEN FROM THE SIDES OF THE TUNNEL BY A MACHINE CALLED A DRILL.

gold ore is brought up from the mine, either in wheelbarrows or in small cars.

Now the problem is to get the gold out of the rock. First the ore is crushed to a powder by a stamping machine that acts much like a man crushing a nut with his heel. Then the powdered ore is passed over copper plates covered with



A MINER BRINGS GOLD ORE UP FROM THE MINE IN A WHEEL-BARROW.

mercury. Mercury is the silver-like liquid metal that is used in many thermometers. The mercury on the copper plates attracts the gold passing over it in somewhat the same way that a magnet attracts bits of iron or steel. The gold sticks to the mercury and mixes with it. The powdered rock simply passes on. The mixed gold and mercury, called amalgam, form a soft mass.

Some of the mercury is then squeezed out of the amalgam, and the amalgam becomes much harder. Now comes the last step. The amalgam is boiled. As it boils, the mercury evaporates, just as water does when it is boiled. But the gold remains just as it is. At last all the mercury has evaporated, and nothing but gold is left.

#### ALLOYS

Gold has one quality that keeps it from being generally used alone. It is soft. A coin, or a ring, or a pin made of

40

pure gold would soon bend out of shape. So other metals are usually mixed with gold to make it harder. These mixtures are called alloys.

One of the oldest alloys is gold and silver. This mixture was used for coins more than 2,600 years ago in Europe. Silver does not harden the gold much, but it does change its color. When one-quarter silver is used with three-quarters gold, the alloy is green. Green gold is sometimes used for jewelry. As more silver is added, the gold alloy slowly turns silvery. This white gold has many uses too — for jewelry, for rims of glasses, for rings.

Copper mixed with gold makes a good hard alloy that will remain in any shape desired. Copper also gives the gold a reddish yellow color that is very pretty. Probably the most usual alloy is one of gold, silver, and copper. This is hard enough for general use, and it keeps the bright yellow gold color.

The ordinary alloy is made by melting the metals and stirring them together. But there is a gold mixture that is made in a different way. Thin sheets of gold are placed upon plates made of some alloy. Then the gold and alloy are rolled together until they are firmly fixed. This rolled gold is often used in making watches.

It is easy to tell how pure any gold article is. Somewhere on every watch, or ring, or any piece of gold, there are several figures. They read, "10K," or "18K," or any other number between 1 and 24. The K stands for carats. For the purity of gold is measured in carats. One carat is  $\frac{1}{24}$  of all the gold in the article. So if the article is twenty-four carats, it is pure gold. If it is marked 18 carats, it has eighteen parts of gold for six parts of some other metal. Articles made of fourteen or eighteen carat gold are called solid, however. That simply means that they are not

just plated with gold, but are gold right through.

### GOLD LEAF

There are some things that can be done with gold that cannot be done with most other metals. It can be hammered out into a sheet of amazing thinness. And it can be drawn out to a thread finer than a spider's web without breaking. One ounce of gold, for instance, could be drawn into a wire 900 miles long! It can be hammered into sheets so thin that if 367,000 sheets were placed one upon the other, they would make a pile only one inch thick!

In making these thin sheets of gold, called gold leaf, an alloy of copper or silver is first made to get the color desired. Then this gold alloy is molded into a bar. The bar is placed between rollers like those on the wringer of a washing machine. The rollers flatten it into a ribbon  $\frac{1}{800}$  of an inch thick.

That is just the beginning. Next, the ribbon is cut into pieces, each an inch square. These pieces are placed between sheets of very thin tough paper. First paper, then gold, then paper — until each pile contains 210 leaves of gold. Then the pile is wrapped in parchment, a paper-like material made from sheep skin.

The small package is placed on a marble block. For twenty minutes it is beaten with a hammer weighing sixteen pounds. When the beating stops, the sheets of gold have spread out till each is three and one-half inches square.

Each square is cut into quarters, and the little squares are placed between layers of ox skin. For two more hours the gold is beaten, this time with a tenpound hammer. And again the gold sheets are taken out, and each is cut into four squares. Then back they go between the layers of ox skin, to be beaten for four more hours with a seven-pound hammer.

By this time the gold sheets are so thin that 200,000 of them would make a pile an inch thick. They can be made thinner if necessary, but they are gold leaf now. Each is so thin that the light can shine through it!

It may seem that this gold leaf is so thin that it could not be handled without breaking. But it has many uses. Most of the gold lettering on store windows and office doors is gold leaf. The lettering on book covers, the gilding on picture frames, on pottery, on china or an anything else which needs gilding is done in gold leaf. It is not very expensive to use gold in this way, because the leaf is so thin that it takes only a tiny bit of gold for each letter or design.

#### MONEY

There is another important quality that gold has over most other metals. It will last for a very long time without changing in any way. It does not rust like iron or tarnish like silver. A piece of gold could be buried in the ground for a hundred years, and when it was

dug up it would not be changed.

This special quality makes gold

This special quality makes gold good for such things as fillings for teeth. A filling made of gold will last a life time. But there is a much more important use for gold because of its lasting quality. It makes a good money. The same coin can be used for many, many years.

There are other things that help to make gold a good money. Just a small amount of it is worth a great deal. So it can be more easily handled than other less valuable metals. Also, everyone knows what it looks like, and so people cannot be easily fooled into taking false gold coins for real ones.

Gold has been used for money for several thousand years. Until recent times it was the chief money of most countries in the world. Even before people had learned to make it into coins,



HERE, MANY YEARS AGO, A PROSPECTOR STAKED HIS CLAIM, HOPING TO FIND IN THE GROUND GREAT RICHES.

tney used gold dust or pieces of gold to trade.

But today most countries have very little money gold. About three-quarters of all the money gold in the world is in the United States. On July 1, 1940 our Government had about twenty billion dollars' worth of the precious metal. But no coins were being made from it. Instead, tons of the shining yellow metal were buried by the Government in special safes, or vaults, under Fort Knox, Ken-

tucky. As more gold is brought here, that is buried with the rest. How long the gold will stay buried, or for what purpose it will be used, nobody knows. It is the greatest buried treasure in all history.



Deacidified using the Bookkeeper process Neutralizing agent: Magnesium Oxide Treatment Date: Oct. 2006

# Preservation Technologies A WORLD LEADER IN PAPER PRESERVATION

111 Thomson Park Drive Cranberry Township, PA 16066 (724) 779-2111



LIBRARY OF CONGRESS

0 003 156 471 2