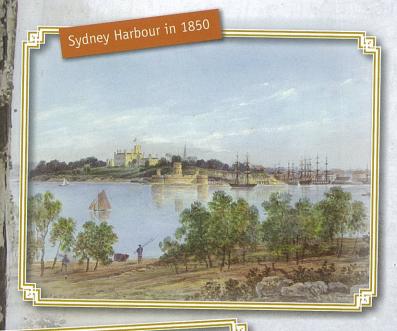


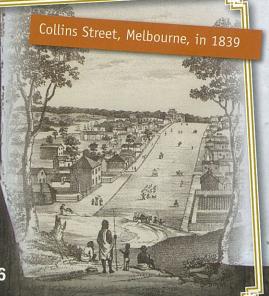
## Australia in the mid-1800s

hen gold was first discovered in the mid-1800s, European settlers had only lived in Australia for about 60 years. Many of the first Europeans in Australia were **convicts** transported from Britain to serve their sentences. When they were released, many stayed in Australia. **Free settlers** had also come to Australia to begin new lives.



#### **Sydney**

In the mid-1800s, Sydney in New South Wales was Australia's main town. It had a population of less than 50 000 people. The streets were unplanned, following the paths made by people's feet, and there was no electricity. There were some large buildings, such as the Hyde Park Barracks, Government House and St Andrew's Church. In the Rocks area, warehouses and hotels near the busy docks served whalers, sealers and wool traders.



#### Melbourne

Melbourne was established in 1835. It was originally called Port Phillip Settlement, and was part of the **colony** of New South Wales. Less than 5000 people lived there in 1841. The streets were planned on a small grid. By the mid-1800s, there were businesses on the Yarra River and houses further out. There were some brick and stone buildings, such as St James' and St Francis' churches. The streets were dirt, and there was only one bridge across the river.



#### Work and wages

In the 1800s, most workers were employed on farms or in factories, and families were large. An average wage was about three **pounds** per week, which could buy the same as about \$300 today. It was barely enough to feed and clothe a family, and pay rent.



Life was even harder for people without paid jobs. People who were poor, sick or could not find work did not receive any money from the government. Most women did not go out to work, unless they did not have a male relative to provide for them. Women who did work were only paid about half a man's wage.

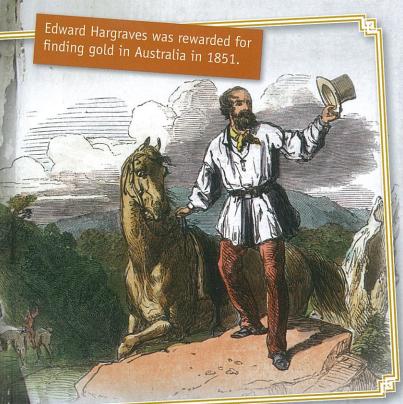
#### Wealth and poverty

In the 1800s, some people in Australia became wealthy, while others experienced poverty. People who owned sheep farms often made their fortunes by sending wool to England, where it was sold and made into clothing. But while sheep farmers became rich, other people became poor. There was a **depression**, which means that many businesses had lost money, and some had closed. Workers who had lost their jobs found it difficult to find new work. Life was hard for many people.

# The first gold discoveries

Indigenous Australians discovered gold long before European settlers arrived, but they had no use for it. Early European settlers also found gold, but sold it secretly because all gold officially belonged to the government. The government did not want the public to know about gold discoveries. They thought convicts would escape to look for gold, and that workers would leave their jobs and go prospecting.

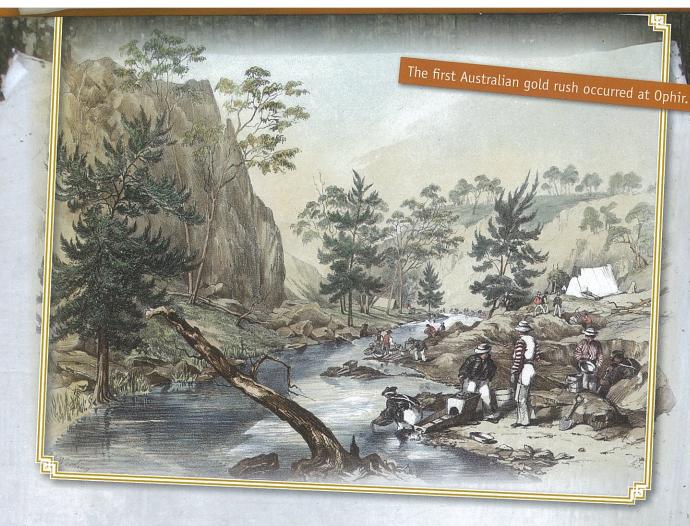
When gold was discovered in California in the United States of America in 1848, many Australian workers left for the Californian goldfields. The government decided to encourage a gold rush to bring more free settlers to New South Wales.



#### **Edward Hargraves**

Edward Hargraves was recognised by the government as the first person to find gold in Australia. In 1849, he went to California to join the gold rush there. Hargraves returned to New South Wales in 1851 when he heard that the government was offering a reward for the discovery of **payable gold**.

Hargraves thought that the country near Bathurst in New South Wales looked very similar to the Californian goldfields. He persuaded John Lister, and two brothers, James and William Tom, to help him look for gold there. At Summerhill Creek, they soon found gold worth 13 pounds (about \$1300). Hargraves took the gold to Sydney.



#### The first rushes begin

When Hargraves reported his find, the first Australian gold rush began. Sydney newspapers quickly spread the story. Within days, people were leaving their jobs and setting off to Bathurst to look for gold. The goldfield at Summerhill Creek was named Ophir. After about a year, people stopped finding gold there, so they moved on to the Turon River nearby, where they found more gold. A town called Sofala quickly developed there, with hotels and businesses to provide for all the goldminers.

#### Gold brings rewards

Hargraves took all the credit for the first gold discovery, and the government paid him a reward of 10 000 pounds, which could buy the same as about \$1 000 000 today. He was made a commissioner, or government official, for the goldfields. He was also granted a pension, which is a regular payment from the government, for life.

The government was also rewarded. They made a great deal of money by charging miners fees for **gold licences**, and also by charging them for the use of **gold escorts**, which carried their gold from the goldfields to cities and towns.

### Finding surface gold

In along by running water and then left at the bottom of a stream or creek. It is also called **alluvial gold**. During the gold rushes, methods of finding surface gold included panning, cradling, puddling and sluicing. These methods were used to remove gold from places that were easy to reach, such as from gravel in riverbeds, or from just underground where a river had once been.

#### Panning

Panning was the simplest and cheapest way of finding surface gold.

#### Equipment

pick shovel gold pan bucket

#### Method

- 1 Loosen the gravel with the pick.
- 2 Shovel gravel and pour water into the pan.
- 3 Swirl the water around so the gravel settles on the bottom.
- 4 Carefully drain off the water and gravel.
- 5 Take any grains of gold found on the bottom of the pan.

Gold pans, picks and shovels were used to pan for surface gold.

#### Cradling

Diggers used a gold cradle if they could afford one. A gold cradle was a wooden box with a strainer in the top. More gravel could be washed at one time than in a gold pan.

#### Equipment

pick shovel gold cradle bucket

#### Method

- 1 Loosen the gravel with the pick.
- 2 Shovel gravel and pour water into the gold cradle.
- 3 Rock the handle so that the gravel settles on the bottom.
- 4 Let the water drain off and let the gravel catch in the strainer.
- **5** Take any grains of gold found on the bottom of the cradle.



Some miners used a gold cradle to search for surface gold.

#### Puddling

Diggers used a puddling tub if the gold flakes were buried in heavy clay rather than gravel. In a large version of a puddling tub, a horse walked in circles to pull a rake around a circular trough.

#### Equipment

shovel gold pan, cradle or sluice wooden paddle bucket puddling tub

A puddling tub was used to search for surface gold in clay

#### Method

- 1 Shovel clay and pour water into the puddling tub.
- 2 Stir the mixture with the wooden paddle to break up the clay.
- **3** Put the soupy mix of clay and water through a gold pan, cradle or sluice.
- 4 Take any grains of gold found on the bottom.

#### Sluicing

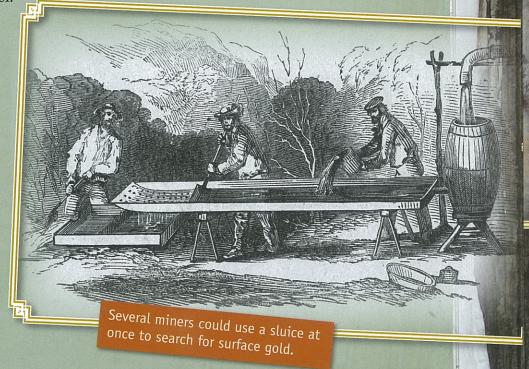
A sluice was a larger version of the gold cradle. It could hold much larger amounts of gravel.

#### Equipment

pick shovel sluice bucket

#### Method

- 1 Loosen the gravel with the pick.
- 2 Shovel gravel and pour water into the sluice.
- **3** Run water through the sluice.
- **4** Take any grains of gold found on the bottom of the sluice.



# Finding gold underground

inding gold underground was difficult and expensive. Once the surface gold had been stripped from an area, many diggers moved on to new goldfields. Those who remained usually joined together in companies or partnerships to mine for gold in **leads** or **quartz-reefs**. Leads were often deep underground and expensive equipment was needed to remove the gold. It was dangerous work.

#### Mining shallow leads

To mine a shallow lead, miners dug a **shaft** that was several metres deep. A windlass was used to raise rock from the mine. This consisted of a rope wound around a pole or barrel, with a bucket attached to the other end of the rope.

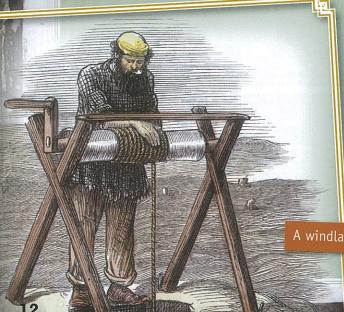
#### Equipment

pick buckets cradle or sluice shovel windlass with rope

#### Method

- 1 Dig a shaft and possibly some drives.
- **2** Use the pick to loosen rock from the shaft or drive walls.
- 3 Shovel the rock into the windlass bucket.
- **4** Have a partner wind up the windlass and empty the bucket.
- **5** The partner then cradles or sluices the rock to search for gold.

A windlass was used to raise rock from a shallow mine.



#### Mining deep leads

If a lead was more than 40 metres deep, even more expensive equipment was needed, such as a horse-powered whim. This consisted of a cable wound around a large drum. The horse pulled on the cable to raise a bucket attached to the other end.

#### Equipment

pick

shovel

buckets

whim with cable

horse

cradle or sluice

wind sail for clean air

A horse-powered whim was used to raise rock from a deep lead.

#### Method

1 Dig a shaft and drives.

- 2 Use the wind sail to blow air down the shaft.
- **3** Use the pick to loosen rock from the drive walls.
- 4 Shovel the rock into the bucket.
- 5 Have a partner work the horse-powered whim and raise and then empty the bucket.
- 6 The partner then cradles or sluices the rock to search for gold.

#### Reef mining

Reef mining was used to mine **gold ore**, which consists of quartz rock containing gold. Reef mining required a lot of expensive machinery, such as a poppet head over the mineshaft to raise the ore, and a Chilean mill or stamper battery to crush the ore.

#### Equipment

pick

shovel

steam-powered poppet head

buckets

Chilean mill or stamper battery

#### Method

- 1 Dig a shaft and drives.
- 2 Use the pick to remove the ore from the drive walls.
- 3 Shovel the ore into buckets.
- **4** The buckets are pulled up by the poppet head.
- **5** The ore is crushed in the Chilean mill or stamper battery and the gold is separated out.

A poppet head was used to raise the ore from a reef goldmine.

