

# Destruction of Forests

That the destruction of forests has a detrimental effect on rainfall, stream-flow, fertility of the soil, and climate and causes floods, is not a recent discovery. It has been known for many years. Hundreds of books, pamphlets, articles, and reports have been written to warn time-serving Governments and profligate peoples of what inevitably follows upon the indiscriminate rooting out and burning down of trees. Fifty-four years ago the Commissioners of Agriculture reported to the Government of the United States:—

From all parts of the State of Maine come up the same complaints of the diminished volume of water in the streams, occasioned by clearing off the forests and denuding the hillsides of trees. The snows are not

ment three years later. Dr. Schomburgk said, among other things:—

"It is perfectly well known that most of the rivers spring from wooded mountains. The forests conserve the water of a country, and thus nourish the rivers and springs. In a desert the rivers generally dry up. . . . If a stream springs from a dense forest a great deal of ice, snow, and water are retained by the layer of humus acting like a sponge, and consequently the water is drained off gently and with much less danger. But where once the forests have gone there is nothing to check the wild impulse of the waters, and very destructive inundations take place.

"We have good reasons for presuming that a great many mountains, at present naked and denuded of trees, were formerly closely timbered; but when the trees were cut down the layer of humus left behind was protected no

lets, which before ran uninterruptedly, have ceased to flow."

Having so vividly depicted the woe that followed the destruction of forests in the older countries of the world, Dr. Schomburgk applied the lesson to South Australia:—

If in tropical countries the influence of forests on the climate is so apparent how much more must it affect a dry climate like South Australia?

To drive the point home he mentioned that "the Delta of Egypt, well known for its dry climate after the destruction of its forests, olive and other plantations, had about six rainy days every year on an average, but since so many millions of useful trees have again been planted the rainy days have increased to 40 annually." Napoleon III. transformed thousands of acres of Algerian desert into forests by having them planted with trees suitable to the climate. For this purpose he obtained 500 lb. of acacia seeds from Victoria. Dr. Schomburgk notes:—"By the last accounts a great change of the climate is observable, and twice as much rain and dew has fallen in the neighborhood of these young forests than before."

In the early days of the colony (says Dr. Schomburgk) a great oversight was made by the Government in not laying out in every hundred reserves containing about one or two square miles for the purpose of forest plantations. . . . Naturally the present generation would not derive a benefit from such a scheme. We would only have the pleasure to watch their growth and the pleasing sight of the green belts traversing our plains, denuded at present of all trees; but I am sure the next generation would bless us.

## PENALTY OF NEGLECT.

This generation has inherited not the blessing Dr. Schomburgk asked the Government of the time to confer on the future, but the curse which he foretold would be the penalty of neglect. And the present generation is as heedless of the future as the past generation was negligent of this.

Europe and America regard the needs of the future, and they require that not less than 20 per cent. of the total territory of a country should be kept forest clad. According to Knibbs the forest condition of South Australia is:—

	Acres.	Per cent.
Total area.. . . .	243,000,000	—
All forests . . . . .	3,800,000	1.56
Protected forests	179,027	0.07

Wealth amounting to hundreds of thousands of pounds a year is lost to South Australia because timber is so scarce that importations have to be made from abroad.

South Australian climate and fertility have suffered through the baldness of the land.

Agricultural areas suffer from drought, loss of humus, sanddrift, erosion, and floods, which things would not occur so intensely—perhaps they would not occur at all—if the land were covered with forests.

In the bald country the streams are dry the greater part of the year, as they are in South Australia, but when rain comes the water, having no sponge to retain it, rushes rapidly to the sea, tearing ravines in the land and spreading destruction far and wide. In forest covered country the rainfall soaks gently into the streams, and we have ever-flowing rivulets and creeks, keeping the land green, cool, and healthy and the soil fertile.

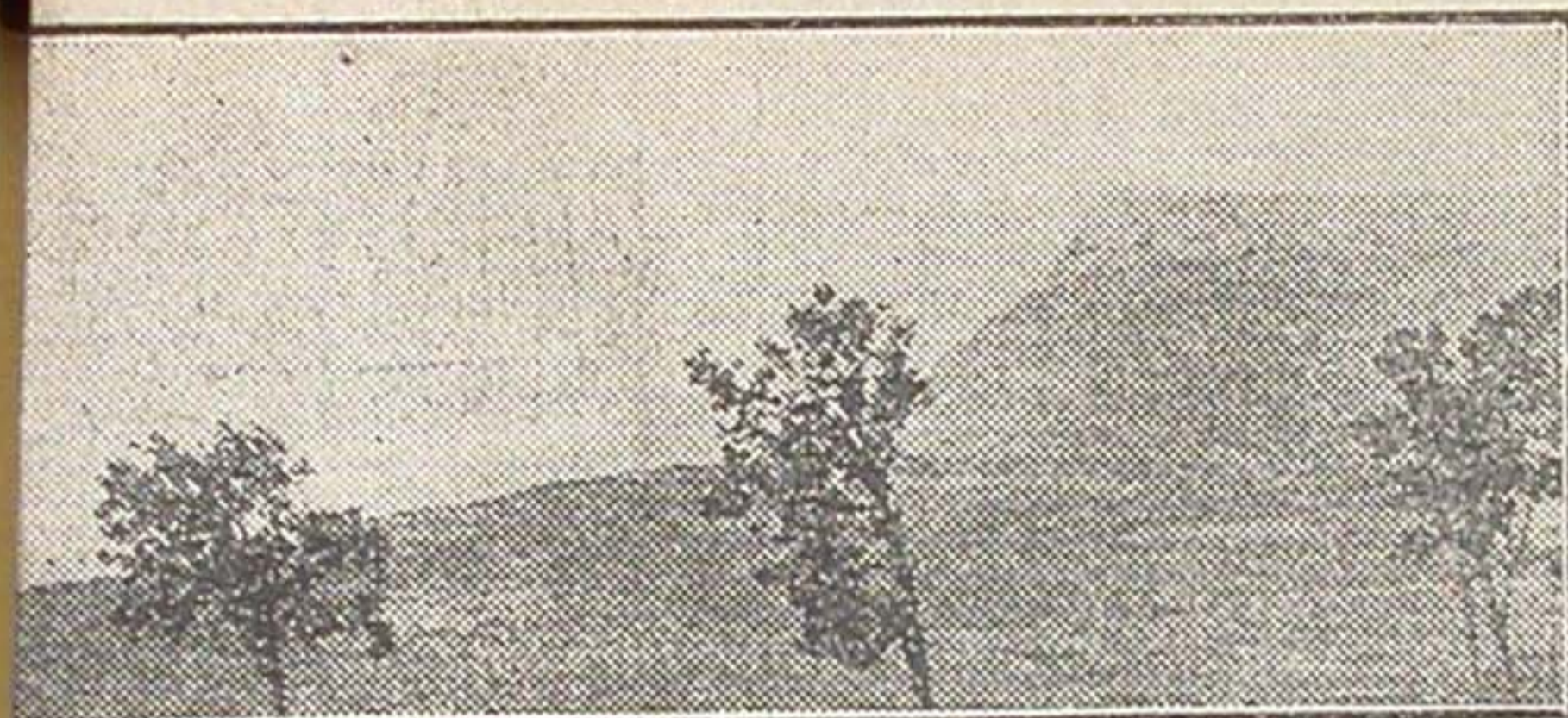
Though there may be wisdom in a bald head there is an inevitable tendency to barrenness in a land that is bald.

S. Baring Gould, in a book called "Germany," wrote many years ago the impressive sentence:—

The timber was felled, and the country was rendered uninhabitable.

It may be centuries before South Australia becomes uninhabitable because of its baldness, but every ten years adds to the difficulties into which past and present neglect has forced the State.

## WHEN THE TREES ARE CLEARED AWAY



## THE SOIL LOSES ITS SPONGY SURFACE

so heavy nor so frequent as they were 20 or 30 years ago, and there is less rain in the summer. Many of the old trout streams are now completely dry, and several parts of the State suffer more than formerly from drought.

Not only from foreign countries has the warning come to South Australia. Dr. R. Schomburgk delivered an impressive warning to the people of Adelaide on August 9, 1870, in a paper he read before the Philosophical Society. His paper was printed by the Govern-

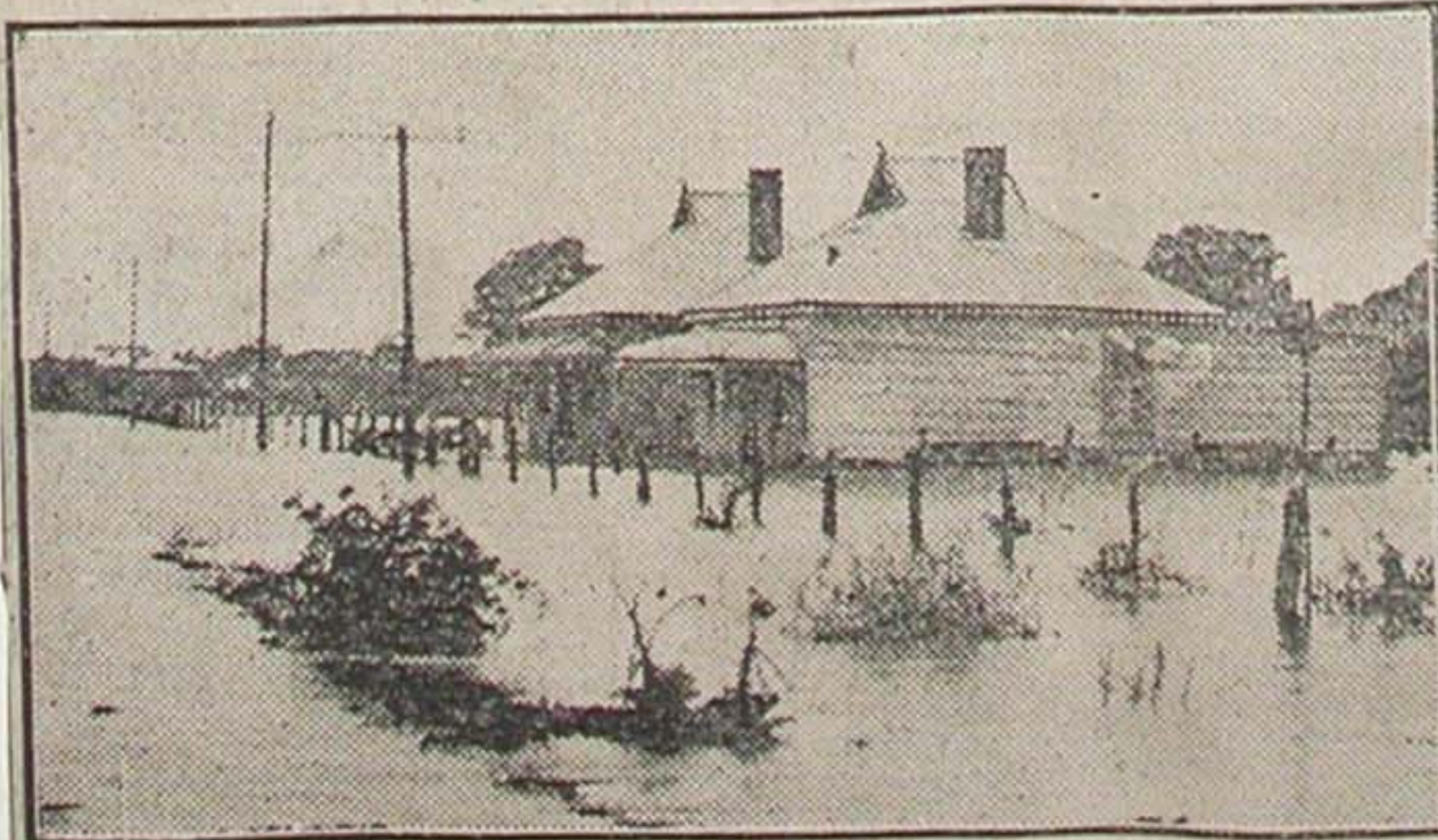
ment longer, the springs dried up, every violent rain washed some of the good land away, the soil became poor, and the vegetation died. All those vast and almost endless savannahs or plains and prairies of Australand, South Asia, were once heavily timbered. . . . We know that Spain, when subjugated by the Romans, was covered with large forests. But at the present time only her coasts retain their forests, and the interior presents the aspect of a vast plain covered with heath, lavender, and rosemary.

## Famine and Drought

"The forests of Peloponnesus were burnt down by Ali Pasha, and in consequence there came famine and drought. A Russian general in modern times rendered his name infamous for ever by burning and destroying wholesale the forests of the Caucasus. . . . Since the destruction of these forests the climate has changed entirely, the country has become barren, droughts and

famine set in, and in consequence thousands of the Tsherkeessians emigrated to seek a new home in Turkey. In the islands of Mauritius, Jamaica, and the Azores, where the forests have been wantonly cut down, so that most parts of these islands are now totally denuded of trees, the results are felt most alarmingly. The rain has become less every year, springs and rivu-

## AND THE RESULTS ARE



FLOODS AND DESTRUCTION