## The Australian Black Opal

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Opals have been found in several countries, including Czechoslovakia, Mexico, the United States and Australia.

It is only in the latter country, however, that the most beautiful of all, the fine black opal occurs. Also, although opals are found in a number of widely separated places in Australia, it is only at one field—

miles, and the stones are found embedded in a layer of clay underlying a sandstone belt. The clay bed lies at depths of from 15 to 75 feet from the surface.

The diggings and the miners' camps are spread out over the area and abandoned diggings are seen everywhere. The small township consisting of a hotel, post office, stores



Lightning Ridge Opal Miner at Work.

Lightning Ridge, in Northern New South Wales—that the true black opal is found.

The field was discovered in the nineties, but was not extensively opened up until about ten years later. As its name implies, it is a low ridge. It is surrounded by black soil plains, but water and vegetation are scarce.

The opal area extends for several

and a few dwellings, presents an unusual appearance owing to the entire lack of vegetation.

The opals are distributed at random throughout the clay band and do not often occur in large batches or pockets. Finding them is a matter of trial and error. A vertical shaft is run down through the sandstone to the clay, then one or more horizontal

shafts are made, using the sandstone as a ceiling. The waste material removed from the vertical and first horizontal shafts is removed by windlass and bucket. The clay from each succeeding horizontal shaft is then stowed in the preceding one. The miners usually work in pairs, but some of them work alone, requiring assistance only when removing earth or clay to the surface.

In the early days of the fields, large numbers of valuable black opals were found. However, now the area has become almost worked out, and a very limited number are found each year. The average yearly return to a miner is small. Nevertheless, the freedom of the life and the chance of making a valuable find offer a strong appeal.

The opal clay, which is of the consistency of cheese, is dug away with a small pick, by light supplied by a candle. The miner usually works in

a very confined space. The pick is wielded very gently so as not to break any opal encountered. When any hard object is encountered, it is carefully removed, and if the miner finds it to be opal material he sets it aside for examination when he gets to the surface. There the irregular shaped piece of opal is "snipped" to determine its value. Many of the pieces upon being broken into have no color present.

If the piece shows good color it is ground down and shaped on an abrasive wheel and the surface is polished. This leaves a roughly shaped lump from which the buyer can get a very good idea of the quality of the specimens. The quality of the black opal can vary tremendously, and the more beautiful pieces are of very great value. The best black opal is of dark body color, brilliant from all angles, with large color pattern and showing an appreciable amount of red.

## OPALS PRESENTED TO G.I.A.

The G.I.A. is indebted to Mr. John Dupré, both for first-hand information furnished concerning the opal deposits of New South Wales and for two very fine black opal doublets which he presented to the Institute's collection. Despite being assembled stones, these gems show play of color as beautiful as that of many fine opals seen on the American market.

## BLACK OPAL

Reports in the trade indicate a renewal of importations of Black Opal from the Lightning Ridge district of Australia. For a considerable period of time this source of the world's finest black opals was reported as apparently exhausted and statements to that effect were contained in the American gemological courses and in text books which accompany them.