

Such vessels are wholly unfit to hold any thing containing acids which will act upon the lead. Grave accidents have happened from this cause, and I beg leave to warn the public against the use of this ware to hold any thing whatever containing an acid which is to be eaten or drunk. People have lost their health, and even their lives in this way, and often without the real cause being known until too late.

These clays in every variety, range from Washington northeastward through the State, via Baltimore and Havre-de-Grace to the Delaware line near Elkton. Their aggregate thickness is considerable, and the width of the belt varies from five to ten miles. They are pierced by tide water rivers at numerous points, and the railroads from Baltimore to Washington, as well as to Philadelphia, are almost wholly located in them. All these, therefore, furnish unusual facilities for the transportation of the clays or their products to the points where they may be needed.

Before leaving the subject of clays, I may briefly call attention to the fire-clays of the coal regions of Alleghany county. There are several beds of these which have been little examined, except in the Potomac and George's Creek coal field. In this the heaviest beds of fire clay are among the lower beds of the coal formation. At Mt. Savage, near Frostburg, the manufacture of fire-bricks has been extensively prosecuted during many years, and the product are found fully equal to the celebrated Stourbridge (Eng.) bricks. These were extensively used in our State before the Baltimore and the Mount Savage bricks were introduced, and now we export fire-brick and import none.

## VII. COAL.

The map shows us that there are three coal fields in Maryland. Of these only the first has been much explored. This has received many names, among which I consider that of the Potomac and George's Creek coal field the most proper, because these, with their affluents, drain the greater part of it. I have made detailed surveys of large portions of this region in former days, and have ample materials to furnish a full account of it, both in its scientific and industrial relations. So much has, however, been published upon the subject that I do not deem it necessary to enlarge upon it at the present time. I may state, however, that the conclusions to which I arrived, and which were published twenty-three years since, have been fully confirmed by subsequent experience in the extensive practical uses of the coal. I then pronounced it the best fuel for raising steam in this country, which is now, I believe, universally admitted by those conversant with the subject.

This formation consists of the following matters:

1. Gray sandstones.
2. Shales.
3. Bituminous shales.
4. Slate clay, or fire-clay.
5. Iron ore, (carbonate of iron.)
6. Coal.

These are interstratified among each other without any regular order of succession. Their aggregate thickness amounts to about 1500 feet.

There are numerous beds of coal, the thickest of which is 14 feet, and there are three others, which are about 6 feet each. The remainder range in thickness from 5 feet down to 1 foot.

The coal at present mined and exported from that region is all taken from the large bed which varies in thickness from 10 to 14 feet. Whilst a portion of the smaller beds contain too much shale to be of value, there are others of excellent quality, and will come into use in after times.

The coal is transported to the seaboard upon the Baltimore and Ohio Railroad and the Chesapeake and Ohio Canal, and is destined to become a vast source of wealth to our State.

West of this we next come to the Meadow Mountain coal field, which has been the subject of very little exploration. I have noticed, near Grantsville, a