

ART. XXXVII.— *On the occurrence of Native Mercury in the Alluvium in Louisiana*; by ERNEST WILKINSON, Ensign U. S. Navy.

NATIVE mercury has been recently discovered in a locality where its presence has hitherto been unsuspected. At "Cedar Grove" Plantation, in Jefferson Parish, Louisiana, on the west bank of the Mississippi, ten miles above New Orleans, native mercury occurs in small globules disseminated through the alluvial soil. These globules vary in size from a microscopic pellet to a BB shot, used for sporting purposes. They seem to be thoroughly admixed in the soil, and although more abundant within a limited area, are found for a distance of 1,200 feet. Beyond this distance, the limited time at my disposal did not allow me to investigate, but the appearance of the soil seems to indicate that the metal is gathered around a

certain center and gradually disappears as the distance from this center increases.

The apparent center lies about 300 feet from the Mississippi River in an orange orchard, where also a number of live oaks are in luxuriant growth. The presence of this mercury has been noticed for a number of years, during the operations of plowing and ditching, but has never, to the writer's knowledge, been officially reported to the scientific world.

The writer took two negro men, with spades, to the locality and obtained several specimens of the soil one to five feet below the surface. He also washed out on the spot, from a small wash-tub full of earth, about two or three ounces of the native element. An analysis of two triturated specimens of the half-dried earth was made with the following results:

1. Weight of soil,	500 grms.	Wt. Hg,	1.4652 grms.	%0.0029 +
2. " " "	500 "	" "	1.4687 "	0.0029 +
Total,	1 kilogram.	Total,	2.9339	mean, %0.002934

Giving a mean percentage of mercury of 0.002934 per cent.

The soil is all alluvial and for a depth of 25 feet is as follows:—

1. Surface, mercury-bearing stratum, six feet thick. A sandy soil containing blue clay and vegetable mould.

2. Stratum of blue clay $6\frac{1}{2}$ feet thick.

3. Similar stratum to surface, but containing no mercury, six feet thick.

4. Stratum of blue clay $6\frac{1}{2}+$ feet thick.

It is not known how much deeper the fourth stratum extends. In none but the upper stratum of alluvial soil does mercury occur in sufficient quantity to be perceptible to the naked eye.

The large quantity of mercury, the great area over which it is scattered, the situation *above* the most frequented resort of commerce, the protection from overflowing by levees, and the absence of any appearance or history of any large cargo of mercury being wrecked in that vicinity, make it extremely improbable that such results could have been effected by the agency of man.