

lar, and little can be known about it until it has been laid bare. The ore is about thirty-five feet thick in the mine. It is concretionary or pisolitic and is of very good quality. The upper twenty feet is better ore than the lower fifteen feet, and the best of all is an inter-bedded seam of four to five feet in thickness. An average sample of the mine is said by Mr. John H. Hawkins, superintendent of the Republic Mining and Manufacturing Company, to have about the following analysis:

Alumina	-	-	-	-	61.00
Ferric oxide	-	-	-	-	2.20
Silica	-	-	-	-	2.10
Titanic acid	-	-	-	-	3.12
Water (Com. and Hydro.) and loss	-	-	-	-	31.58
					100.00

The "Dyke or Burst-Up Bank" in its back or deepest part is from twenty to twenty-five feet deep. Its ore is divided into two irregular seams by an unctuous clay of white, blue and mottled colors. On the outcrop the ore over the clay is near thirty feet thick, and that under the clay has been dug into to a depth of some twenty feet, though its full thickness cannot be seen. In the mine the ore does not appear to be so thick. The bottom bauxite has in it some spots of bauxitic clay and some streaks of manganese stain. The general strike is to the northeast and southwest, and, in the mine, the dip is near 30° toward the northwest. An average sample of the ore of this mine is said to have about the following analysis:

Alumina	-	-	-	-	58.21
Ferric oxide	-	-	-	-	3.60
Silica	-	-	-	-	2.90
Titanic acid	-	-	-	-	3.40
Water (Com. and Hydro.)	-	-	-	-	31.89
					100.00

The "War-whoop Bank," in its back or deepest part, is some twenty feet deep. The different varieties of ore of this mine are known by the commercial names of "War-whoop Ore," "Bird's-eye Ore," "Purple Ore," "War-whoop Bobo Ore" and "Hard White Ore." The "War-whoop Ore" has a putty or dove-colored matrix. The "Bird's-eye Ore" is the "War-whoop Ore" with decomposed matrix; it is inferior in alumina and is so thrown into the waste dump. The "Purple Ore" is "War-whoop" stained, presumably with manganese; it is also thrown over the dump. The "Hard White Ore" has a very white matrix; and the "War-whoop Bobo Ore" is a flour-like ore of about the same composition as the "Hard White Ore." These different ores occur as in the following section, made by Mr. R. S. Perry, general manager of the Southern Bauxite Mining and Manufacturing Company, along a straight line across the mines, commencing with the top ore:

	Feet.
(10) "War-whoop Ore," about	13
(9) "Bird's-eye Ore," about	8
(8) "War-whoop Ore," about	10
(7) "Purple Ore," nearly	3
(6) "Clay Horse," a little over	3
(5) "War-whoop Ore," with 3 inches of (4), nearly	3
(4) "War-whoop Bobo Ore," nearly	3
(3) "Hard White Ore," nearly	9
(2) "War-whoop Bobo Ore," soft, something over	2
(1) Clay, underbed, white for several feet and then mottled.	

The following analyses are given by Mr. R. S. Perry as the average of those made by the consumers of car-load samples of the "War-whoop" and "Hard White" ores of the "War-whoop Bank or Mine."

	1.	2.
Alumina, from	57.00 to 62.00	56.00 to 62.00
Ferric Oxide	under 1.00	2.50 to 3.00
Silica, about	2.50	5.00
Titanic Acid	3.00 to 4.00	3.00 to 4.00
Water, Combined	29.00 to 30.00	about 30.00
Moisture, Hygroscopic	2.00 to 4.00	3.00 to 4.00

(1) The "Hard White Ore." Average analysis of car load samples of between 500 and 1000 long tons.

(2) The "War-whoop Ore." Average of consumers' analyses.

The company contemplates driving a tunnel from near the bottom of an adjacent ravine under the "War-whoop Bank or Mine." This tunnel would drain the ore to a depth of some forty feet under the present floor of the mine.

The bauxite mining in America, or in Alabama and Georgia, is gradually on the increase, and, unless nipped in the bud by unfavorable legislation, promises to be of no little importance.

A SOUTH AMERICAN LAMPREY.

BY THEO. GILL, WASHINGTON, D. C.

IN September, 1867, a lamprey was found in a street of Buenos Ayres and was the cause of much comment, some conjecturing it to have fallen from the heavens (!) and others that it was transported by a water spout. A valuation of 15,000 pesos (dollars) was placed on it, and subsequently it was actually sold for 1,000 pesos. (This was, however, in the much depreciated currency of Argentina.) Later the species was described by Dr. Burmeister as *Petromyzon macrostomus*. In 1882 I ventured to propose for it the generic name *Exomegas*. In 1893 it was re-described and figured by Dr. Carlos Berg, the successor of Dr. Burmeister, as *Geotria macrostomus*. Another specimen was found near Montevideo in 1890, and on it Dr. Berg's communication was based. The description and figure do not, however, entirely agree, and to call attention to such discrepancies is the object of this note. It is to be hoped that Dr. Berg will further examine the specimen and elucidate the doubtful points.

From Dr. Berg's illustration, it is evident that the lamprey is not a *Geotria* and that the genus *Exomegas* based on it is perfectly valid. It is not clear, however, what is the character of the annular cartilage, and, from the figure, one might even be excused for thinking it might not be developed. Such want, however, is very improbable.¹ If there should really be no annular cartilage the lamprey so distinguished would have to be referred to an independent family at least.

Dr. Berg says: "*Lamina maxillaris angusta lobulis quatuor valde humilibus fere inermis instructa*," but not the slightest indication of such a corneous lamina is given in the accompanying plate. Only four concentric (not at all diverging) rows of conic teeth are represented as arming the upper half of the oral disk, and one row of numerous (24) teeth is delineated in a marginal lower row. Is there really an upper or suproral lamina, and can the lower teeth possibly be developed from tubercles of the annular cartilage? Dr. Berg says: "*Lamina mandibularis humilissima mutica*." Let us hope that Dr. Berg will dissect the subject sufficiently to inform us, and give us a better illustration. Either the figure of Dr. Berg's memoir is quite inaccurate, or the species deviates remarkably from all other *Petromyzonids* in dental arrangement. I may add that in common with all others of late years, I have adopted for the family the name *Petromyzontidae*, for which Professor Agassiz (1850) was responsible. The proper form of the name is *Petromyzonidae*.

¹The shape of the mouth sufficiently indicates the existence of an annular cartilage.