EXHIBITION OF ALCHEMICAL MEDALS.

By Dr. H. CARRINGTON BOLTON.

The speaker exhibited perfect facsimiles of three medals struck to commemorate alleged transmutations.

No. 1 bears no date, but as it bears the name of Francis II., Duke of Saxony, it can be assigned to the period between 1581 and 1619. The original purports to be of silver; on the obverse are many inscriptions arranged within and without a central triangle, accompanied by emblematic devices. The reverse is of a similar character, and has symbols of antimony and calx. The medal is mentioned by Reyher and other numismatists.

No. 2 has the appearance of a piece of soft white metal hammered into shape by an unskilled hand. The obverse has a representation of Saturn as Chronos, and the reverse bears the following inscription (Translation): "In the month of July, 1675, I, Doctor J. J. Becher, transmuted by hermetic art this ounce of purest silver from lead." This inscription associates this unique medal with the eminent German chemist, Johann Joachim Becher, who, with Stahl, founded the Phlogistic Theory. His biography is well known.

No. 3 is of suppositious gold and adorned with figures and letters in high relief. The obverse has a large figure of Saturn, and the symbol for lead, with the words "A golden offspring begotten of its parent lead." The reverse bears no ornaments but has a long Latin inscription setting forth that this piece was struck at the Castle of Ambros in the Tyrol, in commemoration of a transmutation effected December 31st, 1716, by His Highness, Charles Philip, Count Palatine of the Rhine.

The originals of these medals were found by Dr. Bolton in the Imperial Cabinet of Coins, Vienna; the Director of the Cabinet



kindly allowed him to have plaster easts made, and from these handsome metallic facsimiles were made by courtesy of the Asst. Keeper of Coins and Medals of the British Museum. Two sets were made, one of which was presented to the British Museum. These are shown in the accompanying cuts. It is believed that numbers 2 and 3 have never been described by numismatists.

They form extraordinary and tangible proofs of the sincerity of the widely prevailing belief in transmutation that existed for centuries. Full descriptions of these medals and more than forty others will be found in a paper entitled "Contributions of Alchemy to Numismatics," read before the American Numismatic and Archæological Society, Dec. 5th, 1889, and published in their journal.

METHOD OF DETERMINING INDIGOTINE FOR COM-MERCIAL PURPOSES.

By F. A. OWEN.

Under the above heading the author published a paper in this journal in Nov., 1888; the process as there described has been materially modified, and as now practised in the mills of the Burlington Woolen Company. at Winooski, Vt., is as follows:

From the sample shave off and coarsely powder two or three grammes, from which weigh with exactness two portions of one gramme each. In the first determine the moisture by drying in a watchglass at 100° C. and afterwards ignite this portion and determine the ash. The second portion is brushed from the scalepan directly into a glass mortar, ground for a time dry, then water is added and the grinding is continued for some time; the pestle is rinsed into mortar and the whole allowed to settle for a minute or so, and all that will freely pour off is decanted into a glass stoppered, 200 c. c. flask. The sediment is reground with water, and