

# UNLOCKING THE TREASURE IN COCONUT SHELL

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**T**HE manufacture from Coconut Shells and Husks, on a commercial basis, of certain products which enjoy a world wide market with prices which are not only lucrative, but quite staple the year round is now a reality in Manila.

Coconut Shells which in the past have been considered of little utility, is today the basis of a new industry which will bring great returns to the people and do much toward the industrialization program and the rehabilitation of the Coconut industry.

The year 1940 marked the beginning of a new Era of prosperity for the Coconut industry, and may well be called the year in which the unlocking of the Coconut Shell began.

This new Era was brought about by men who believed that the rehabilitation of the Coconut industry would be brought about largely by the utilization of the so-called Coconut waste products, determined men, who had faith in the ability of its people to overcome any obstacle, be they ever so great, thus the National Coconut Corporation was organized.

As an illustration, the following will give you some idea of a sad picture which is on the way of being remedied.

The Philippines imports annually a large amount of Carbon products, such as Flashlight Batteries, Telephone Batteries, Radio Batteries, Carbon Electrodes, Motor Brushes, Graphite etc.

These items drain the Philippines of an enormous amount of money, which in turn helps to create an unfavorable trade balance for the country.

Realizing the importance of utilizing Coconut Shells, the National Electric Corporation, co-operating with the technical staff of the National Coconut Corporation, have brought to a successful conclusion a series of long experiments, and finally established a factory to manufacture the above products on a commercial basis.

The National Electric Corporation factory in Manila, is now operating, using 100% Filipino labor and American methods of mass production.

The Factory has a daily capacity of:

- 25,000—Flashlight Batteries
- 2,000—Telephone Batteries
- 300—Radio "B" Batteries
- 100,000—Carbon Electrodes



William Orland

All the above products contain from 80 to 100% ingredients made from Coconut Shells.

The Coconut industry and the people in general are indebted to the Officers of the National Coconut Corporation for their vision and efforts in making this new industry possible. When one considers the fact that approximately 24,000 ordinary size Coconut Shells, the equivalent of one ton, (Coconut Shells were formerly considered waste) has now a minimum value of P165.00 pesos after treatment, it becomes exceedingly difficult to place a value on the vision and foresight of those men who made this a reality.

The process of converting Coconut Shells into the various grades of Carbon is rather complicated. The following is written merely to give the layman a picture of what happens to the Coconut Shell after it is taken from the "Tree of Life," and starts on its long and hot journey to be unlocked. I say hot journey, because, in the first operation, the shells are placed in a retort and remain there for several hours under terrific heat. We are now forcing the shell to give up its wood preservative, while at the same time we are converting it into high-grade charcoal under the process known as destructive distillation.

The charred Shells are now taken from the retort and placed into a specially designed apparatus to receive special treatment under pressure. Thus activated carbon for Gas Masks is produced.

Other charred Shells after leaving the first retort are again placed in another retort for further carbonization and to reduce its electric resistance to the passage of current.

After the above treatment, the Shells are ground to various mesh, and placed in bins, later to be mixed with other ingredients, or used alone depending on the product to be manufactured. This product is known as Carbon.

In the manufacture of Electrodes, the Carbon is mixed with other ingredients and heated, while still hot, it is compressed into desired shapes under terrific pressure by a specially designed hydraulic press, later to be marked for proper lengths by machine, and again packed in containers and placed in special kilns to be baked for several days.

Later when the Electrodes have cooled sufficiently to handle, they are cut, and the ends properly shaped by machine, they are now packed and ready to serve the many and varied uses of industry.

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**BENITEZ, EXECUTIVE . . .**

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a vast program of industrialization of the coconut and its by-products. The nearly illimitable reservoir of industrial riches which the coconut tree holds in its various parts fill one with amazement at the potentialities which the industrialization of this plant holds. Scientific experimentation and research along this line be said to be still in their swaddling clothes in the Philippines, yet we are already attaining surprising results. What scientific research will unlock in its advanced stages in future years may well be something to marvel at.

He considers the ability of our coconut people to adopt themselves to a changing environment in their attitude towards the coconut a challenge to their education and progressiveness.

"It is a real challenge to the capacity of our people," he says. "I say it is a real challenge to our capacity, because it constitutes a trial of our ability to adjust ourselves to a changing environment. An essential pre-requisite to that utilization is training and experience. I believe whole heartedly in the value of scientific research and I believe that every encouragement should be given to scientists in their effort to utilize various coconut by-products. And not only is the application of scientific methods valuable to the exploitation of the by-products of the coconut but also to improvement in our methods of coconut farming."

Because one of the main objectives of the National Coconut Corporation is the greater utilization

of coconut by-products he feels that it should lead the way in the search of scientific methods whereby the potentialities of these by-products will be more fully exploited. The best means of assuring this, he says, is by having a strong and progressive scientific department which shall unceasingly labor on the scientific problems involved and reflect its progress in a continued expansion of its field of research.

**The Need for Ideals**

Speaking of the objectives of the Corporation, he came to the subject of ideals. It might appear at first blush that ideals have no relevant connection with the activities of the Corporation but Dr. Benitez quickly disabused the listener of any such notion. Ideals cannot be dissociated from every worthy enterprise, he said, and in the case of the National Coconut Corporation, the task entrusted to it is a noble one. That task, according to him, is a heavy responsibility in itself.

"We who are entrusted with the task of carrying out the work of the Corporation must never forget that the Corporation has a mission. That mission is the rehabilitation of the coconut industry. It is a trust reposed in us. Therefore we should make the realization of that mission our ideal."

—G.Z.

**CONRADO BENITEZ...**  
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work given by the college of business.

Because of his wide interest in educational matters that vitally concern the University of the Philippines, his name was mentioned when the Board of Regents was engaged in the task of selecting a successor of the late President Ignacio Villamor.

He is well-known in Japan, China, and Canada for being twice delegate to the conferences of the Institute of Pacific Relations, and for being the executive secretary and director of the institute in the Philippines.

Dean Benitez was member of the Filipino participation in the Joint Preparatory Committee on Philippine Affairs appointed by President Franklin D. Roosevelt of the United States in consultation with President Quezon of the Philippines, for the purpose of studying the trade relations between the United States and the Philippines with a view to an orderly and adequate adjustment of the Philippine national economy.

Once president of the Jose Rizal College, Dean Benitez was formerly partner in the Abad Santos and Benitez law firm at Manila, and alumni regent of the University of the Philippines.

In the National Constitutional Convention he was chairman of the committee on industry, and member of the committees on public instruction, national defense, agricultural development, sponsorship, and selection of the resident commissioner under the Commonwealth. He was also member of the committee of seven that drafted the Constitution.

He is member of the Historical Research and Markers Committee, Board of Indeterminate Sentence, Pardon Board, Philippine Economic Association, and of the executive council of the Philippine Academy of Social Sciences. He is editorial correspondent of the *Pacific Affairs*; Philippine representative of the World Alliance for International Friendship; secretary and director of the Philippine Coconut Planters' Association; adviser of the International Club, U.P.; and organizer of the International Relations Club of the Philippines.

**UNLOCKING THE . . .**

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Thus the coconut shell has been unlocked, mostly through the efforts of the National Coconut Corpora-

tion Officials, who had faith, vision and dared to attempt.