

Castañer Newsletter

BRUMBAUGH RECONSTRUCTION UNIT

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Castaner, Puerto Rico

BRETHREN SERVICE COMMITTEE

February 1, March 1, 1947

THE MEDICAL PROGRAM

Foreword

by Dr. Homer L. Burke,
Medical Director

Now that the coffee crop is harvested this is the busy season for the Castaner Hospital. Our beds are filled almost all of the time (92% occupancy during the month of January). Sometimes a discharged patient has left just in time for the room to be cleaned for another patient coming in to take his place. Accident cases are numerous. Infections are rife. Deep abscesses are common and at times are difficult to locate.

The clinics at Bartolo and Rio Prieto are also very active. Every day, especially in the morning, the OPD (out-patient department) is a scene of great activity with the many cases that are acute or of an emergency nature. The tooth-extraction clinic is well-attended--25 to 35 patients have teeth extracted each Monday morning. The eye clinic on Thursday afternoon is developing rapidly.

School nursing and hookworm control, milk stations and nutrition classes are all aimed at the improvement of community health.

There is no doubt that this community really needs our medical, hospital and health services.

The Out-Patient Department

Through the doors of the Out-Patient Department, which are open 24 hours a day, seven days a week, pass the emergency cases of an area of over 22,000 people. On foot, by hammock carried on the shoulders of friends, by bus, by public car, and by ambulance the serious cases of the surrounding municipalities of Adjuntas, Lares, Yauco and Maricao, come to our office. During the past year there were over 10,000 patient visits recorded in our office. This means that on the average there were about 35 patients a day. Some days there would be as many as sixty patients, but at other times when rain would make the mountain paths slippery and dangerous to use there would be less than a dozen people to be seen.

In the small office there is a practicante, a ward aide, and when possible, a graduate nurse. These three workers are always busy handling simple cases that require only a change of bandage, or a word of advice, as well as interpreting the instructions of the doctors for the patients or assisting the doctors who are on call every hour of the day and night, and in examining the patients. Some of the cases are simple ones requiring only a little bandage to keep out the dirt which is filled with germs, and such cases as a cut on the sole of a small boy's foot. Others may require immediate aid in controlling profuse bleeding of a deep laceration caused by the long and exceedingly sharp knife--the machete.

OPD--continued

All the cases which are admitted to the hospital, whether they come from the various clinics held by our doctors, or are referred by the doctor in Adjuntas have to pass through the office of the OPD. Here, in addition to the treatment given to the patients, the records for the hospital are kept. Hospital charts are filled out and filed, statistics both monthly and yearly are tabulated and recorded, insurance cases for the federal government and the insular government are recorded and sent to San Juan and Washington, D. C., and schedules for operations are handled by the OPD workers. Birth certificates, marriage certificates, and death certificates are handled through the OPD. Last, but not least, the monthly subsidy report is made up in the OPD. This succeeds in netting the hospital \$20,000 annually from the Insular Government.

We are quite busy, but even so, we try to find time, little by little, to complete a small morgue near the office. The morgue was begun last fall and we hope to finish it very soon.

The Laboratory (an interview)

"Oh hello, we're glad to meet you. So you'd like to look around the lab? Well, just come on in, and as soon as we finish counting this WBC (ordered stat-- that means 'immediately') we can talk. 1 - 2 - 3 - 4 - Those? Why those are the hooks on which we put our completed reports, and that last one over there is for hospital orders. We'll be getting some soon, without a doubt.

"5 - 6 - 7 - Sure, that's our home-made incubator, and it does the job as well as any \$99.98 one. What's it used for? I'll assure you we don't hatch chickens in it, but we grow all kinds of bacteria that are lurking in people's throats. We swab the person's throat and smear the swab on a culture plate which is suitable for extensive growth. Then at this warm temperature the bacteria present grow large enough for us to examine them and determine what kind of "bug" is causing an illness. What? Sure it's interesting. You'd like to work here.

"8 - 9 - 10 - No! Don't turn that off! That's our centrifuge. The four little cups inside each hold a test tube, and when it is turned on, it spins them around and around. This makes cells and any loose particles settle to the bottom of the tube and the clear liquid rises to the top.

"11 - 12 - 13 - 14 - Oh yes, our work table! There has been every kind of stain and solution spilled on it until there is scarcely any of its original color left. It has a coat of paraffin to protect it as much as possible. That shelf above the work table holds our solutions: 1/12 N H₂SO₄, 0.9% NaCl, acetone, glucose stock and standards, stains, reagents, Pandy's, phenol, NaOH, acids, HCl-- I can't begin to name them all. We make complete urine analyses; stool examinations for hookworm, whip worm, round worm, pin worm, and sometimes amoeba; blood sugar tests, bile tests; tests for venereal diseases; examinations of spinal fluids; serum proteins; abdominal fluid tests; and we also read all kinds of stained slides and smears with the microscope, such as tuberculosis, diphtheria, trichomonas, malaria, pneumococcus, scrapings for fungus, blood smears, etc.

"And this which I am counting now will tell whether the patient has too few or too many white blood cells (we make red blood counts, too.) Oh dear! Here come the hospital orders. Just make yourself at home and we'll be back shortly. Meet Arcelio, our Puerto Rican lab helper--go on, strike up a conversation (Spanish preferred). Don't sit on anything but the chairs; and don't put your fingers in your mouth. It's too easy to pick up something you won't want. So long, see you later. Oh fizz!--I forgot to finish that count! Won't take long - 15 - 16 - 17."

X-ray

In this department X-rays are taken of patients referred from the OPD, the hospital, and the various clinics. This work is of particular importance due to the large amount of tuberculosis in the mountain area of Puerto Rico. If our dentistry program can be expanded there will also be many dental X-ray pictures taken. X-ray treatments can also be given. Fluoroscopy examinations are also frequently made.

The Operating Room

The ride was long and the curves were many, but the round trip to Humacao on the eastern end of the Island was worth it for we returned with a good-sized autoclave for the hospital. Since opening, the hospital has been using the same small autoclave which has long since become insufficient. We have been hoping for the past year to secure a more satisfactory one, and our hopes were realized a few weeks ago when a large hospital consented to sell us their recently replaced one which has about four times the capacity of our original small autoclave. Our cup overflowed when we heard the very reasonable price. Although it is not yet completely overhauled and installed, puttering along with the old small one has become less burdensome with the realization of this newer, larger autoclave in the immediate future.

Our work in the Operating Room and the Delivery Room has been considerably facilitated by the emergency battery lamp constructed by the maintenance department. Entirely too often we find ourselves without electricity at Castaner. This new lamp operates on electricity, constantly charging a battery which then continues to operate if the electricity fails. It has other unique features, also, in that it is so constructed that it can be regulated by its apparatus far from the sterile field of the operating table, and thus be focused directly on incisions and wounds from any desired angle. It was made from an automobile head light.

We find the O. R. and O. B. work at Castaner far from routine as figures would indicate. The fact that we delivered 125 babies in 1946 does not tell the story of the many battles with undernourished mothers and their puny babies. Having three sets of twins and only five stillbirths during the year makes us very happy.

Our operating room has seen such interesting cases as a trachiotomy done to permit breathing for a child whose trachea has become congested due to diphtheria or to infestation of worms, machete lacerations, gun shot and stab wounds, as well as much elective surgery.

Training for Hospital Workers

One aim of the Nursing Staff of the Castaner General Hospital is to train as many as possible of the young Puerto Rican boys and girls in methods of caring for the sick, and in general housekeeping. Although all of those trained will not be able to work in our hospital it is, nevertheless, one good method of raising the community health standards. Twelve students have been graduated and awarded diplomas during 1946. This event is of great significance in the life of a Puerto Rican. Plans are under way for a new class. Victorina Riera will instruct it, assisted by Charlotte Wright.

Those accepted for organized class instruction must have completed the 8th grade, be 16 or more years of age, and must pass a physical examination. Personal hygiene, hospital ethics and orientation are primarily emphasized during the first two weeks of the thirteen-week course. Those who merit encouragement at the end of this preliminary period are permitted to complete the course.

Pediatrics and Nutrition

Medical work with children theoretically covers a large proportion of the people, if the estimate is correct that 50% of the population of Puerto Rico is under 15 years of age. In addition to the children seen as emergencies in the OPD there are five established clinics each week for children. Two of these are in Rio Prieto, about four miles from the hospital, and three at Castaner.

The number of children treated is gradually increasing, probably as a result of the approaching end of the coffee-picking season. In the Rio Prieto clinics 30 or 40 children are treated in each of the two clinics held there.

A large proportion of children seen are suffering from respiratory infections --tonsillitis, bronchitis, pneumonia, and ear infections. Another large group is children with intestinal parasites, particularly ascaris and hookworm. Approximately 5% of small children seen are suffering from obvious and gross malnutrition. Some of these are actually dying for want of sufficient food and come too late to be saved. Others have more specific dietary deficiencies, usually protein, vitamins and minerals. It is estimated that roughly 25% or 30% of the remaining children have underlying dietary deficiencies as an important factor in their illness.

Because of lack of iron in the diet many patients have some degree of anemia, and not infrequently severe anemia is discovered.

A standard diet for adults is coffee for breakfast, starchy root vegetables similar to potato for lunch, white rice and beans for supper. Less poverty-stricken persons are likely to have milk in their coffee (the others drink it black), to serve rice and beans twice a day, and to have some meat and eggs occasionally.

Mothers in the clinics when questioned usually say that the children eat rice, beans, bananas, potatoes, coffee and crackers. A great number of children have no meat, milk, or eggs, no colored vegetables or fruits. Most of the diets, therefore, are deficient in protein, iron, calcium, and all of the vitamins.

The problem of malnutrition is apparently a very serious one here, and is difficult to combat. It is not always due to poverty alone. Another important factor is the years and years of custom and tradition lying back of the usually inadequate diet. It is difficult for outsiders to overcome these cultural barriers and teach the use of better varieties of foods. Suggested substitutions have been brown rice for white, yellow or leafy vegetables for white, and better use of native fruits. To accomplish significant changes and to improve or make adequate the diet of many Puerto Ricans in this community is not something that can be accomplished rapidly. It will take years of patient teaching as well as economic improvement.

Nutrition Class

At the beginning of the new year a nutrition class was started among a group of club women and girls. Malnutrition is one of the major problems of Puerto Rico. And while poverty enters into the picture, to a very large extent it is even more an educational problem. So it is our aim by teaching nutritional values of local and available foods, and the required kinds and amounts necessary for health and growth, to help these women to help themselves and their families to better health.

Tempting recipes are given them and some are prepared and tasted in the class room. For the most part vegetables and proteins are lacking in their diet. One day they were given twelve different ways of serving squash. (How many ways do you know?)

The interest is very good and the class is growing in numbers--new names are being added to the enrollment almost every week.

Class for Comadronas

The class for comadronas (mid-wives) began January 9th with an enrollment of four women. These women are learning to give prenatal care, delivery service and post-partum care. Little by little they are buying equipment for their delivery bags. Our public health nurse teaches the class and also goes with the mid-wives for their deliveries to help them use and arrange their equipment. These women are taking advantage of this timely teaching opportunity which is so much needed in their community.

The intensity of the need for such instruction can be readily seen from the fact that almost 87% of the babies are born at home, often without the benefit of any medical care whatever, and amidst grossly superstitious methods of care. There are some women who go about as professional mid-wives or comadronas, but these are often quite poorly trained; hence proper scientific and medical instruction will be a great boon to the health of the community. 10% of all babies born die before they are one year old. When the comadronas trained in this class apply their training they will be doing their bit to help eliminate this terrible death rate because so much of it is due to improper prenatal care and delivery service, as well as to ignorance as to proper diet and economic inability to provide for a proper diet.

Obstetric Clinic

Every Tuesday afternoon at two o'clock a group of expectant mothers comes to an obstetric clinic for medical and nursing care in order that their babies as well as themselves shall preserve their health and prevent many complications during pregnancy. Five more ladies are admitted to this clinic each Tuesday. They receive chest and pelvic examinations and complete laboratory work. Routine checks are made each week after this. These women are advised and instructed concerning their diet, clothing, exercise, rest, etc. Pamphlets in Spanish about prenatal care are also distributed to them.

Thus they receive adequate medical care. However, there is yet much to do in an educational way. They need more lectures on diet, especially; further, many do not have much time to read pamphlets as many of them have a great deal of work to do in order to help support their families, and some of the pamphlets are too difficult for them to understand readily--indeed there are some who cannot read.

Dental Clinic

Every Monday morning at ten o'clock a dental clinic is held at the dispensary. It should be called the "tooth extraction clinic" for most of the work consists of that. Most of the older people in this area have nearly all of their teeth in a very bad condition. Of course tooth decay is a great enemy of one's general health, often causing poor vision, poor digestion, backache, and pain in other parts of the body. On a recent Monday morning a man about 27 years of age came to a clinic with all these complaints and it was obvious that bad teeth were the cause of most of his trouble.

Beginning the first Monday in February Andy Mathis has helped at the dental clinics by cleaning teeth, thus helping to prevent so many extractions. This is a recently-added service, although a similar service had been performed earlier in the history of the unit, but discontinued over a year ago.

Eye Clinic

An eye clinic is held every Thursday afternoon which includes complete visual examination and treatment of eye difficulties and disorders such as conjunctivitis and other inflammations of the eyes. Lenses are ordered when necessary for patients at a minimum price of \$6.00 and \$10.00. Many cataract cases are detected in this clinic and these patients are given appointments with the hospital for operation.

Tuberculosis Clinic

Every Thursday morning the public health dispensary is open for tuberculosis patients and their contacts. Regular patients come for routine examinations every month to three months. Cases not yet diagnosed, as well as case contacts, come to receive the results of their recent X-ray plates. The doctor reads all the X-rays taken during the week and studies each case with the help of the nurse to interview the patient, and the help of the medical social worker who identifies the X-ray and gives information regarding the family and home conditions of that patient.

Cases have recently been referred to this clinic from our hospital and outpatient department at the rate of one new case each week. These are followed by home visits by the medical social worker.

The Puerto Rican rate of occurrence of tuberculosis is over 200 per 1000 as compared with 14 per 1000 in the United States proper. Lack of proper, and often insufficient, food and crowded conditions are responsible for an increasing rate during the last few years. The raising of the wage level of the laborer is necessary before he can provide adequate food and housing for his family.

Who's Who in the Castaner Medical Program

Dr. Homer L. Burke, our Medical Director, is not only busy with the problems of running the hospital program, but also does the surgery and meets several clinics each week, including the O. B., dental and eye clinics. He received his training at Northwestern University's Medical School, and for many years was medical missionary for the Church of the Brethren in Nigeria. Mrs. Marguerite Burke, R. N. (Illinois Training School, Cook County Hospital) assists him on surgery days.

Dr. Francis W. Helfrick and Dr. Sylvia Helfrick (both trained at Johns Hopkins Medical School) are specialists in pediatrics. Francis holds five pediatric clinics weekly and Sylvia holds one clinic for women each week. All three doctors are on call in our OPD, as well as make hospital rounds.

Alys Lickel Haag, R. N. (Polyclinic Hospital, Harrisburg, Pa.), Supt. of Nurses and Operating Room Supervisor finds her days filled with such problems as making the hospital work schedules each week, keeping up sterile supplies, as well as working on the ward and being general diplomat. Julia Lamboy (ward aid) is Mrs. Haag's very capable Operating Room assistant.

Charlotte Hawkins Wright, R. N. (Bethesda Hosp., Cincinnati, Ohio) (and B.A. in Sociology, Berea College) is in charge of the Hospital Educational Program and is now organizing a new group of prospects for training as ward aids and orderlies. Edna Eller, R. N. (Jefferson Hosp., Roanoke, Va.; and a B. S. in nursing education from the University of Virginia) has ample use for all her past teaching experience in demonstrating and supervising the work on the ward. The ward work has been greatly facilitated recently by the use of a dressings cart which holds trays, dressings, supplies and instruments and can be readily wheeled to any bedside as needed. Kathryn Hertzler, R. N. (St. Joseph's Hosp., Lancaster, Pa.) is in charge on the late shift with her greater interest in pediatrics. We all share her interest for they enjoy our American-Spanish without difficulty. Ruth Idleman, R. N., (Bethany Hosp., Chicago, Ill.) has learned the ins and outs of all the departments, but finds Dispensary and Public Health of major interest.

The following girls are ward aids in the Hospital: Angelita Santiago has a special interest in obstetrics. Blanca Martinez is most at home among the "small fry" in the Pediatric Ward. Milagros Guzman has not yet decided which department she prefers, but she is going to be a nurse, and she will be a very good one. Eulogia Bonilla has returned after spending eleven months in Mayaguez. Erohilda Cardona enjoys the work among all the patients, but would like to become a school teacher. Elena Torres works from 4:00-8:30 p.m. daily so that she can go to school. She also has the teaching profession as her ultimate goal.

Four boys are orderlies in our Hospital--Jaime Alvarez, Luis Fernandini, Alfonso Troche and Antonio Rivera. They like their work and are kept busy with the many tasks of caring for the patients in the men's ward.

Velma Miller Shearer, R. N. (Rockford Memorial Hosp., Rockford, Ill., also three years study in Public Health Nursing at the University of Minnesota) is the School Nurse. She also has a class for training comadronas (mid-wives), and has recently started a class in Nutrition. Her two assistants are Virginia Vera and Carmen Troche (both ward aids) who find clinic work, school nursing and assisting with classes an opportunity to learn, as well as being enjoyable work.

Josephine Wolf (B.A. in Pre-Professional Social Work from the University of Michigan) is the Medical Social Worker. She does a great deal of home visiting as follow-up work on cases discharged from the hospital, and advises people as to the best type of care and diets which they should follow in their homes in relation to each family's situation. Sometimes there is clothing to be distributed. Much work is also done among tuberculosis cases. The Medical Social Works is frequently instrumental in getting some of the most serious prolonged cases admitted to the other hospitals on the Island.

Thomas Mathews is in charge of the Out-Patient Department, and is also the Secretary and Librarian for the Hospital. He is fully occupied with first-aid emergencies and with all the records of the Hospital. Victorina "Vicky" Riera, R. N. (Presbyterian Hosp., Santurce, P. R.) is the nurse in the Out-Patient Department. Vivacious and energetic, she takes temperatures, bandages wounds, passes out the pills along with advice. She is also the instructress for the ward aid and orderly classes in training the hospital workers. Carmen Flores is our very dependable ward aid in the OPD, and has seniority there. However, she is going to the States in June. We'll be missing you, Carmen.

Ermalinda Selva, R. N. (Presbyterian Hosp., Santurce, P.R.) has been on loan to the Board of Health as nurse in their Dispensary pending her official appointment which has just arrived. Formerly she worked in our OPD. Alejandrina Lamboy, ward aid, is also in the Dispensary as helper to Miss Selva and the doctors, taking care of from twenty to eighty patients daily.

Beth Roop, MT (ASCP)--Master Technician (American Society of Clinical Pathologists)--is our laboratory technician, and makes tests and does microscope work for the hospital, OPD, clinics, the school and public health program, and the hookworm survey. She is assisted by Caryl Mathis, a graduate of Manchester College. They are training Arcelio Nunci, a former hospital orderly, who has shown a great interest in learning new things.

Luke Bachmann, our X-ray technician, does all the X-rays and fluoroscopies as needed for the entire medical program. He recently completed a 10-day course for X-ray technicians given by the General Electric Company in San Juan, and is making good use of our new X-ray machine which was recently purchased with the aid of so many of our friends and neighbors both in the States and in Puerto Rico. Martha Bachmann spends a part of each week away from her secretarial work in the Unit's office to keep the drug room well-stocked with supplies. Andy Mathis, taking half a day each week from his work in the Community Center, spends Monday afternoons cleaning teeth at the Dispensary. Dental care is one of the most urgent needs here. We wish you were a dentist, too, Andy. Knight Webster also spends half a day each week from his work in the Community Center to complete the hookworm survey of the PRRA Project and to put the finishing touches on the privy program.

In Summary

The medical work in our Project is really a big job. We have a large, thickly populated mountain territory which has practically no other source of medical care. The problems of giving medical care to the jibaros, country people, are increased considerably due to the ignorance of so many of the people concerning things medical. There is also much superstition.

The patients are often reluctant to allow the doctors examine them, sometimes they are uncertain of their complaints, while others exaggerate theirs. It takes a great deal of patient work to prepare some people for the doctor's examination. Another difficulty is the interpretation of Spanish into English, for, as with all languages, the idioms and the slang words are frequently very difficult to translate into another language. The jibaros also have expressions of their own for many things, and these expressions are practically unknown among the people living in the coastal cities where some of our nurses are trained.

In spite of all its difficulties, the medical program is a great help to this community and its most needy surrounding territory where there are few roads, far from adequate school facilities, no other medical care than ours, and where the people often work for starvation wages. The people express their appreciation of and gratitude for what service we are able to render them by word of mouth, by gifts of money and of fruits and vegetables, and by giving free days of work on our recent building project. And we who work in the medical program feel a personal satisfaction in seeing the patients leave our hospital in good health, well-fed and happy who came here sick, injured, and often more than half-starved, some having been in that condition for the greater part of their lives.

FOUR ATTEND PUBLIC HEALTH CONVENTION

Doctors Francis and Sylvia Helfrick and Nurses Edna Eller and Kathryn Hertzler attended the Sixth Annual Puerto Rico Public Health Convention held on February 5th to 7th at the School of Tropical Medicine in San Juan. This is a beautiful Spanish style building adjacent to the Capitol and overlooking the Atlantic Ocean.

The Wednesday evening program consisted of brief remarks by Jesus T. Pinero, Governor of Puerto Rico; Juan A. Pons, the newly-appointed Commissioner of Health for Puerto Rico; Brig. Gen. James S. Simmons of Harvard University; Mrs. John Hepler of District No. 6 of the U. S. P. H. S.; and Dr. Angel M. Marchand, President of the Puerto Rico Public Health Association.

Most of the papers were presented in Spanish, but some were given in English. On Thursday morning Dr. Francis J. Weber from the States spoke on "Progress in Tuberculosis Control" in which he stressed the need for many more beds for TB patients both in the States and in Puerto Rico. He also told of the recent experimental work done with the new drugs, streptomycin and B. C. G. The latter is a vaccine of dead TB germs, the value of which has not yet been proven.

On Friday morning Dr. Lydia F. Roberts, Chief of the Department of Home Economics at the University of Puerto Rico, presented a very interesting and useful lecture on "Improving the Puerto Rican Diet". She said the Puerto Rican diet lacks proteins, calcium, and vitamins. The mainstay of their diet--rice and beans--should not be omitted, but should be supplemented at very little cost with other foods. For instance, soy beans should be substituted for kidney beans, and unpolished rice for white polished rice, and yellow sweet potatoes for white sweet potatoes. Each family should either own a goat for milk, or else buy powdered milk. Many families have no milk in their diet for weeks. A pair of rabbits could produce 100 pounds of meat per year under favorable conditions. (A boys' club at Castaner is now experimenting with raising rabbits as a source of meat.)

PUBLIC HEALTH CONVENTION (Continued)

Friday afternoon, Jean Harbison, a former Castanerite now at the Presbyterian Project at El Guacio, showed slides of Castaner, and spoke of our work here. In the afternoon Miss Pearl McIver of the American Nurses Association spoke on "Nursing Participation in National and International Health Programs." She told of the forthcoming International Nurses Convention to be held in Atlantic City next summer.

The trip was both enjoyable and useful in that it helped some of our members to become acquainted with some of the best public health workers both in the States and in Puerto Rico.

GARDEN WEDDING

On the beautiful Sunday morning of February 2nd the Unit members and Puerto Rican guests gathered at the Castaner garden near the Casa Grande to witness the wedding of Maurice Click of Bridgewater, Virginia to Lois Graybill of Wenatchee, Washington. The group assembled before the archway to the arbor which Nature had prepared with blooming bougainvillea. A pathway of ferns bordered with flowers led to this arbor.

Dr. Francis Helfrick played a prelude of organ music followed by the song, "My Hero", sung by Royce Burke. Rufus King performed the ceremony after which Maurice and Lois exchanged a vow of love which they sealed with the exchange of rings and with a kiss. Wanda Brown read the poem, "Prayer", which ended the ceremony.

The bride wore a simple white crepe afternoon dress with an orchid placed at her waistline. The groom wore a white dress suit.

The reception was a dinner at the dining hall. Tables were arranged in a U-shape with the bride and groom sitting at the head of the U. The five-tiered wedding cake was cut by the bride and groom after which the others were served with cake and ice cream. The Unit and others presented the couple with gifts and their best wishes for their happiness.

In the afternoon the couple left for the McLean Conference Grounds south of Bayamon where they spent their honeymoon. Upon their return they are now at home in the Casa Grande.

H. SPENCER MINNICH VISITS CASTANER

H. Spencer Minnich, Promotion Secretary for the General Brotherhood Board of the Church of the Brethren, and his "good wife" visited Castaner from January 7th to the 14th. During their stay they visited all the departments of the project and held personal interviews with many of the Unit members. On Friday evening, January 10th, he showed us pictures he had taken of the Brethren Service Unit at Quito, Ecuador on his visit there. Following the pictures he gave an inspirational message. On Saturday the Minnichs accompanied by Rufus King and others visited the Presbyterian Project at El Guacio and other points of interest on the western end of the Island. On Sunday he gave us a timely message on seeing values in our work as a small part of an important whole program.

We were happy to have the Minnichs visit Castaner and observe the problems of Puerto Rico. We believe that by faith in God, sincerity of heart and by true expression of the Master's love we can help the people of this community to have a greater desire for the four-fold life.

TOUR OF THE VANILLA CURING PLAN

Most of the Unit members found time on the morning of either January 21st or the 22nd to take one of the tours of the vanilla curing plant located on our project. We were conducted on these tours by Mr. Santiago Esbri, manager of the plant and of the cooperative which operates the plant. The cooperative leases the building from the PRRA. The co-op has 168 members, including both large and small growers, from the entire Island--although little or no vanilla is grown in the extreme eastern end of the Island.

Vanilla is a plant of the orchid family, and like orchids, takes very little nourishment from the soil (most orchids grow on tree trunks and limbs), but a great deal of its nourishment is taken from the air. The plant can be grown in a sandy soil, it is so little dependent up the soil for its nourishment. It should be grown in about 50% shade, and thus is an ideal crop to raise in conjunction with coffee, as it is a climbing vine much like beans or peas. It would grow to a height of 50 feet if not trained to climb down within reach of pickers. This is important in commercial growing because the flower must be hand-pollinated. Even so, the crops are oftentimes diminished because the rainy season coincides with its blossoming time which is from April to June, although each flower is in bloom for only two days. The co-op is operating here a small experimental plot for intensive growing of vanilla under ideal conditions in conjunction with the College of Agriculture at Mayaguez.

The vanilla beans are picked when very green, and when the tip is about to turn yellow. The beans grow from four to eight inches long. The growers are paid by the pound for the beans they deliver to the plant here. They are then sorted according to size. The beans are dipped into very hot water (about 170°F.) for 15 seconds to begin its curing. Then they are wrapped in bundles in blankets and put in wooden sweating boxes overnight. This process is repeated for two more nights after which the beans (which have now turned a very dark brown) are spread out to dry in the sun for four hours daily for 8 to 15 days.

The vanilla plant here is equipped with a drying oven which can be used for this part of the process if the weather does not permit sun-drying, but the harvest season for vanilla is the same time as the dry season, and sun-drying gives the vanilla a far more superior flavor than artificial drying. After this, the vanilla beans are spread on screen racks and sun-dried further for a week, after which they are further air-dried within the building.

The final part of the curing process consists of placing these dried vanilla beans in wooden conditioning trunks for three or four months while the chemical process starts to form vanillin and other oleo resins. During this long period all of the beans are examined every two weeks, bean by bean, for mould. If a mouldy bean is found, the mould is killed by rubbing it with alcohol. However, this causes the vanilla's flavor to be inferior, so these are kept apart from the others. The incidence of mouldy beans, however, is only about 1/3 of 1% and since the mould is killed it is only the alcohol treatment which affects the flavor of the vanilla.

At the end of all this curing process the vanilla beans are carefully packaged and shipped to the United States to a vanilla extracting company to be made into vanilla extract, which process consists of chopping these cured beans and combining them with alcohol, thus making pure vanilla extract. The co-op sells its entire output to the highest bidder in the States, and is always able to command top prices because of its reputation for top quality due to its exacting care in the curing. However, next year the co-op will install in its curing plant the necessary machinery to do the extracting also, thus doing all the work here from the vine to the bottled product.

VANILLA PLANT (Continued)

One pound of cured vanilla beans makes about one gallon of vanilla extract. The vanilla industry is not at all worried about imitation vanilla, for the imitation flavor merely satisfies the demand which the pure vanilla business is unable to supply. This vanilla plant located at our project is not only the only one on the Island of Puerto Rico, but the only one of its kind in the entire world, Mr. Esbri Believes, for although Mexico has a much older and larger vanilla industry, its curing is done by primitive methods, even to drying the bean in the street, oftentimes. Here the work is done by the best of modern and sanitary methods and with the consultation of the Agricultural Experiment Station of the College of Agriculture at Mayaguez.

CASTANER VISITORS DURING JANUARY:

Rev. and Mrs. William F. Hastings and son, Charles, of Union Church, Santurce, P.R.
Jean Alexander of El Guacio Project.

Rev. and Mrs. H. Spencer Minnich, of Elgin, Illinois. (see page 9)

Rev. and Mrs. J. N. Byler of the Mennonite Central Committee of Akron, Pennsylvania. Rev. Byler visited us recently, and while here spoke to us of the work of MCC all over the world. Rev. Byler is MCC's executive secretary. He told us of some of the trials of Mennonites in Europe today, and how the Mennonites in America are chartering a large ship to bring a considerable number of these Mennonite Displaced Persons from Europe to a Mennonite community in the Gran Chaco in Paraguay.

Mr. and Mrs. Melvin Lauver, director the La Plata Project.

Paul Leatherman of La Plata.

Leroy Mann of La Plata.

Mr. and Mrs. Earl Sander of Ephrata, Pennsylvania.

Mr. and Mrs. Newton W. Long of Baltimore, Maryland, the parents of Howard Long, one of our Unit members. Mr. Long is now chairman of the General Mission Commission of the Church of the Brethren. While here he spoke to the group at Vespers Service on Sunday evening of February 2nd.

Mrs. Edna M. Wolf of Gloversville, New York, the mother of Howard Wolf, a member of the Unit.

CASTANER VISITORS DURING FEBRUARY:

Dr. Mark A. Dawber (Methodist), executive secretary of the Home Missions Council of the churches cooperating in the Federal Council of Churches.--of New York City.

Dr. and Mrs. George W. Buckner of Indianapolis, Indiana, editor of World Outlook, published by the Disciples Church.

Dr. Mark Rich of New York City, Rural life secretary of the Baptist Church.

Dr. Henry S. Randolph of New York City, Rural life secretary of the Presbyterian church.

Harry E. Zeck of Ponce, P. R., co-superintendent of the cooperative United Brethren Congregational mission work in Puerto Rico.

Aron F. Webber of Rio Piedras, P. R., Superintendent of Baptist Missions in Puerto Rico.

Antonio Rivera Rodriguez, student body representative from Union Seminary in Rio Piedras, P.R. All of the above February visitors came to Castaner while on a tour of the Island which was made as a preliminary preparation for the Land Tenure Conference for Puerto Rico of the Town and Country Committee of the Home Missions Council of the Federal Council of Churches. The group also visited El Guacio Project, Polytechnic Institute at San German, P. R., and the La Plata Project among others. The Conference was held at the McLean Conference Grounds February 17-20.

Other February visitors were Stanley P. Harbison, director at El Guacio; Mary MacDuffee of Madison, Wisconsin, now studying at the University of Puerto Rico; Ormel Green of the Congregational Project at Zaldondo near Loquillo; and Mr. and Mrs. Paul Evans, and Audrey, of the Veterans Administration in San Juan.