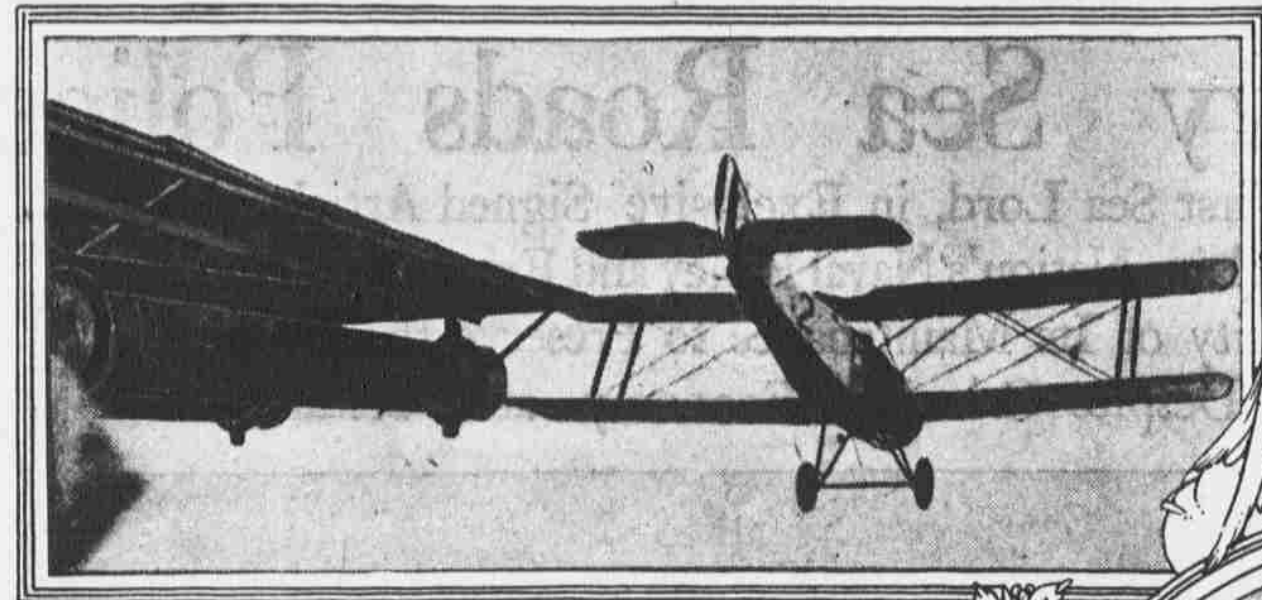


Airplanes to Speed Up Overseas Mail Service

Plans Under Consideration to Fit Ocean Liners With Aircraft Promise Transatlantic Delivery in Thirty-six Hours



PLANE SOARS OFF THE PLATFORM WITH PERFECT EASE.

By RUSSELL B. MOON, U. S. N.

WITH the use of airplanes by the United States Navy and the rapid advance made in flying from the decks of battleships comes the plan for the use of planes on board all ocean liners. For the last three years planes have been in use on board our war vessels and those of England. Scout planes, as used on land with the landing chassis instead of the pontoons, are used regularly in the United States fleet. These planes "hop" from the deck and from specially constructed runways over the big gun turrets. These runways are about 160 feet long and are just wide enough to accommodate the plane. It requires only fifty feet for one of these planes to get sufficient headway to clear and make a successful hop into the air.

With the regular transatlantic air service in the future the use of planes on board transatlantic vessels will greatly facilitate and speed up the mails and other important matters which now depend upon the speed of the vessel in crossing and docking. An ocean liner equipped with these planes could cut down the mail time overseas to approximately forty-eight hours, and this with ease.

These gigantic vessels have far better facilities for launching aircraft from their decks than the ordinary man o' war, and they need not be specially constructed for this purpose. A portable runway can be constructed on the upper structure of the vessel from which these planes can be launched with ease. Passengers desiring to cross quickly and who are willing to pay extra for this service can be landed far in advance of the vessel's schedule.

How the Plan Would Work Out.

For instance, we'll say the Mauretania sails from Liverpool on August 24, and it takes her approximately five days to cross the Atlantic, including the time required in docking, etc. Installed upon her after superstructure is a small platform, built of light lumber and in sections so that it can be dismantled if desired and pivoted upon a centre pin or axle so that it will turn in much the same manner as a turntable and can be swung in either direction on the beam. Upon this platform rests a fast cruiser plane, fully equipped and with inflatable floats attached just over the wheels of the chassis. The plane's crew has seen to it that two days emergency ration, for use in case of accident, and water have been

placed in the plane and the mechanic has everything tuned up for action. The plane is secured for sea in much the same manner as the lifeboats.

Two days out of Liverpool the most important mail is placed in the airplane and the pilot takes his seat. The plane has been made ready for flight and all lashings are released except the automatic release which holds the plane until the motor has increased to full speed. At a signal from the pilot the plane is released and hops from the runway like a bird, soaring high above the vessel, and setting a course for New York it lands a few hours later.

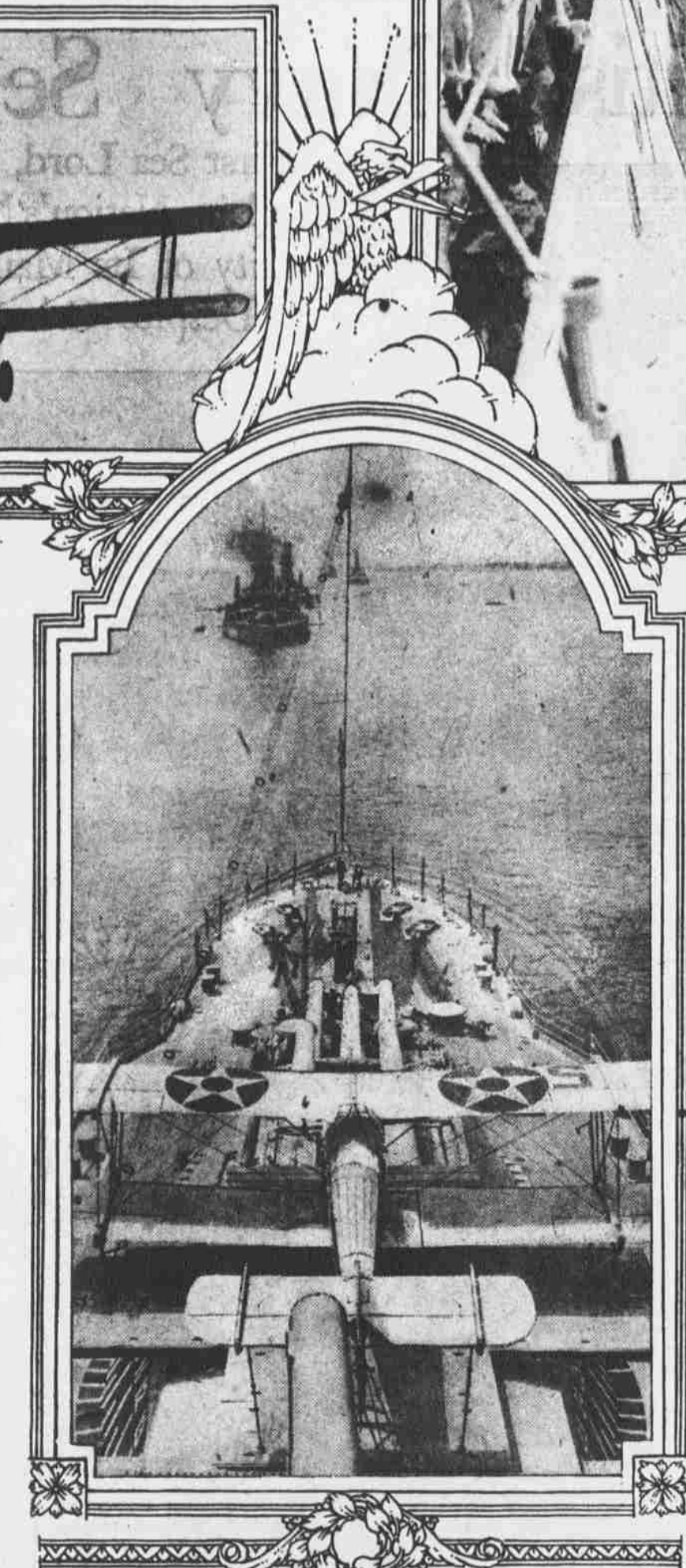
Suppose that while the airplane is getting ready for its flight with the mail Mr. Jones of New York city receives a wireless that his presence is needed in New York the next day in order to save several thousand dollars, or possibly millions. Mr. Jones rushes up to the captain and procures passage on the ship's mail plane and is landed in New York a few hours later. He has saved money for himself and does not mind in the least the extra toll he has paid for passage. This plane will prove invaluable in hundreds of instances. Mr. Jones might have received a message that some one in his family was very sick and at the point of death, instead of a financial matter, and been rushed to the sick bed in the same manner.

Safeguard Against Icebergs.

We all remember the terrible disaster which overtook the Titanic. Rushing headlong for port through a sheet of fog she struck an iceberg and went down within a few hours. Many lives were lost and others exposed to the elements. Fog is often of a low seated nature and while very dense in the lower regions may leave the atmosphere perfectly clear a few feet above the level of the sea. In a region where it is expected that icebergs may be encountered a scout plane could be sent out over the sheet of fog and such disaster avoided. Of course this would not work under all conditions.

On the other hand, a passenger on the liner while two days out of New York develops a serious case of sickness, with which the ship's doctor is unable to cope. The passenger is transferred to the airplane and landed quickly and without discomfort at a hospital in New York within a few hours. Experiments at the army experimental station, McCook Field, Dayton, Ohio, have proved that the sick can be carried in an airplane with far more comfort than in any other conveyance.

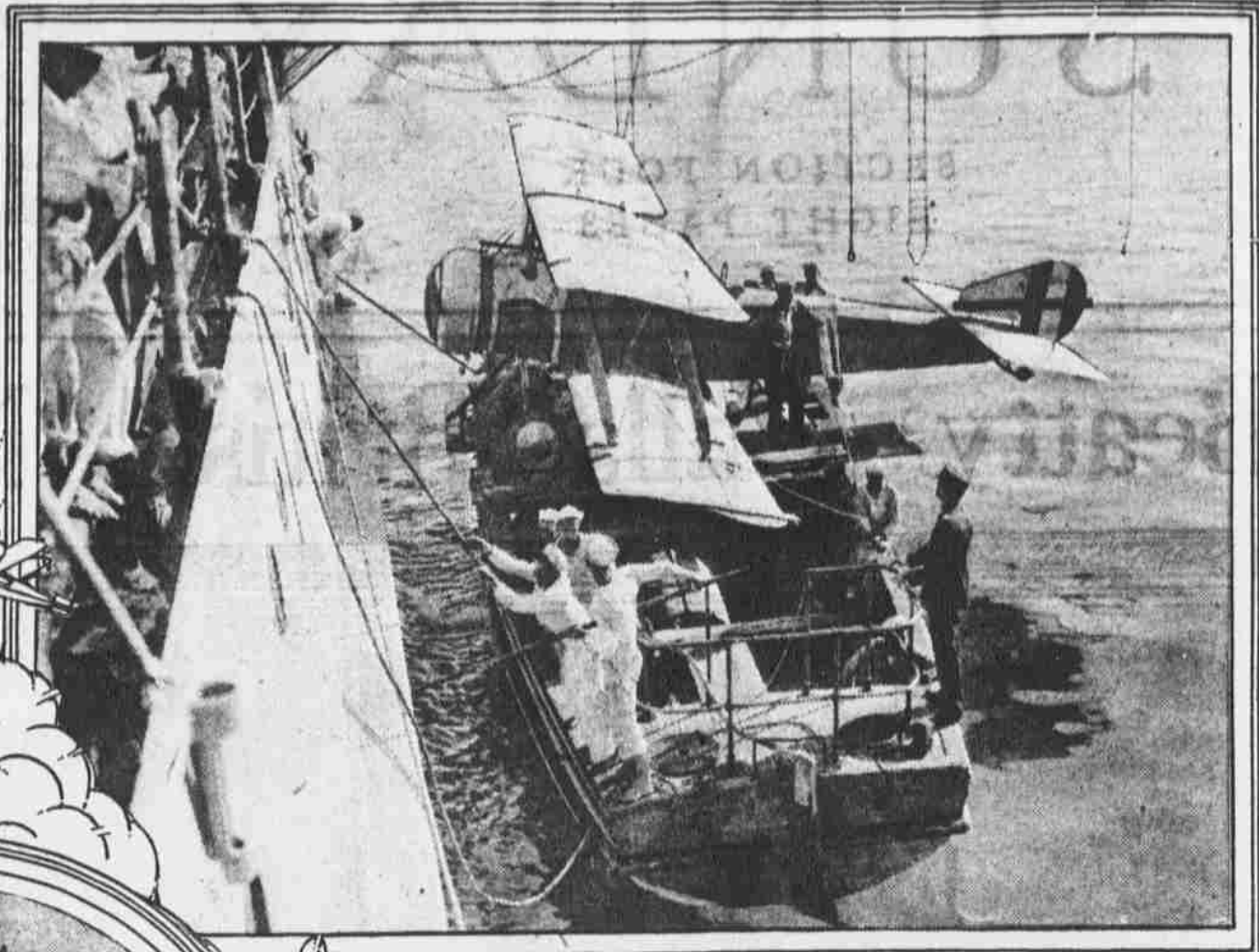
The fact that these planes can land upon the water renders it possible to transfer passengers at sea without the necessity of



PLANE ABOARD U. S. S. NEVADA. NOTE SMALL SPACE REQUIRED FOR HOUSING.

ships changing their course, and while many miles apart. Neither ship would need to slow down or stop, except when the one picked up the passenger and the other picked up the plane.

Every thing proposed in the foregoing paragraphs has been proved possible by the activities of the United States Navy. It is as common to launch planes from the decks of our battleships as it is to launch boats,



HOISTING A PLANE ON BOARD the U. S. S. OKLAHOMA IT WOULD BE EASY FOR A LINER TO PICK UP PLANES FROM THE PIER

and a plane shooting off from the turret of a dreadnought creates no more interest among the men of our fleet than the passing of a train on shore. There is no reason why these planes used on board vessels at sea would not prove a success from a commercial point of view, and the coming of the transatlantic air lines would not alter the usefulness of aircraft on ocean liners, but would increase their value. Especially would this prove true in cases of aircraft in distress, where isolated; a fast plane which could cover great distance in a short time would prove invaluable.

The use of airplanes on transatlantic liners would hasten the making and changing of customs laws covering the use of aircraft. There is no doubt that the air smuggler will be an added evil for the Government to cope with in the near future, and in the absence of Government air patrols it will fall to New York's flying police to cope with this problem.

While steamship companies have not yet taken advantage of this added feature of safety and convenience, it is only because

they have been so occupied with war matters and are just getting their ships back from their respective governments. There is little doubt that this method of speeding up the mails will be used in the future, inasmuch as it will not be many months before the British establish regular transatlantic service by the airway.

While they are building aircraft to make 200 miles an hour, the type of scout now in use makes an average of 125 miles. If, when the Mauretania is twenty-four hours out of Liverpool, a plane goes out with mail and drops it upon the decks of this vessel, and this mail is placed in the ship's plane, which leaves the ship twenty-four hours later for New York the mail time between Liverpool and New York would be cut to less than thirty-six hours.

In the future mail will travel between New York and Liverpool in ten hours; but while patiently waiting for this to be developed we can hasten the present mail time, which has not been reduced in some years, by carrying mail and passenger planes on board our ocean liners.

Vast Riches of Liberia's Wilds Revealed to the World at Last

THE SUN AND NEW YORK HERALD a few weeks ago was probably the first newspaper in our country to announce that Liberia, in West Africa, had just come into view as very rich in natural resources, both agricultural and mineral. It is nearly as large as the State of New York, fronts on the Atlantic for about 300 miles and its coast belt is only about twenty miles wide. North of the coast belt the whole country is a vast forest through which Sir Alfred Sharpe of England has recently penetrated. He has informed the Royal Geographical Society of the enormous population of this, till now, unknown forest land and of the unexpected resources, including gold and other minerals, that await development there.

The new facts that open this pleasant prospect for Liberia were obtained through the recent explorations of Sir Alfred Sharpe, one of the most trustworthy and conservative of the later explorers of Africa. He was knighted by the British Government in 1903 for his exploration in the upper Congo basin, his accurate mapping of Lake Mero, discovered by Livingston, and for the part he took in bringing peace to Northern Rhodesia, long harassed by turbulent natives. He has made a great contribution to our knowledge of Liberia and has just published his first report of the work he did in the great forest hinterland which no explorer had entered for any considerable distance.

Hard Travelling in Liberia.

He found that it would be very difficult to cross Liberia from south to north because all the many rivers flow through the forest from north to south and, therefore, would not help him on his way northward. He therefore sailed from Liberia northwestward to Freetown, the port and capital of the British colony of Sierra Leone, where he loaded his heavy bundles of trade goods on a railroad train that took him to the northwestern corner of Liberia. There he hired many black Liberian carriers from day to day, for none of them would go far from his own home.

He crossed the country from its northwestern to its northeastern corner, and then for months he made his way southwesterly through the forest till he reached Monrovia, the capital of Liberia, on the Atlantic coast. In his zigzag course he travelled more than 400 miles and nearly all of the journey was through territory that no white man had seen before. It was hard travelling; for the journey was chiefly through heavily timbered country.

Sharpe made many interesting discoveries in this land. One was that the native population is very large. Probably 200,000 people live there among the high trees. The explorer mentions eight towns he saw with a population of 1,000 to 2,500 each. The houses are built chiefly on hill tops. Towns of such size have hitherto been almost unknown in parts of barbarous Africa where the influence of the whites has not yet begun to prevail.

The oil palm is a native of west tropical Africa districts at the head of the Gulf of Guinea. But now vastly larger fields of the oil palm are suddenly brought into view in Liberia, and there is probably enough to supply the world's demand for palm oil for all time to come. This is a very notable discovery. For many years palm oil has been sent to Marseilles and other European centres for the manufacture of soap and candles. The supply has never been equal to the demand, but with the new field now opened by

the discovery of Sir Alfred Sharpe the usefulness of the oil palm will be greatly enlarged.

Sir Alfred says that wherever in Africa the oil palm exists in fair quantity the building of a railroad on that account alone will pay. He mentions the country of Sierra Leone, at whose railroad stations there is keen competition for the purchase of palm kernels from natives. The oil palm, he adds, "grows throughout the hinterland of Liberia in abundance, and given railroads to the coast, a large trade in oil and oil kernels will quickly develop."

Sees Railroad Opportunity.

The richest belts of the oil palm in Liberia, he says, are fifty miles inland from the ocean, northward to about the northern border of the country. Much cotton is also grown and every village weaves its own clothing. He says that Liberia is probably richer in agricultural products than any other portion of West Africa, and he mentions the fact that projects are now in hand which, he hopes, will result in the investment of large sums of money in railroad building.

The natives of the equatorial forests of West Africa usually have been found to be dwarfed and hostile, but Sir Alfred Sharpe found the forest folk of Liberia to be full grown, industrious and among the most amiable natives he had seen in Africa. The men clear away the trees to make room for their farms. Every essential required for development is there, and Sir Alfred says that "development is sure to come sooner or later. The Liberian Government has had many difficulties to contend with in the past, but with the help and advice of the Powers interested there seems every prospect of a great future for the country."

Lucinda's Experience

"SITTING in the same seat with me in a Broadway car this morning," said Lucinda, "was a very presentable and well-mannered young man who got on two or three blocks below my street. I was sitting in the end of the seat by the window and, of course, this newcomer took the vacant seat by the aisle, being careful not to encroach upon my space.

"For a little time he looked straight ahead, but then he turned and looked toward me. This action he repeated two or three times, looking to the front and then turning his head to look at me; and I wondered if it could by any possibility be somebody I knew, or could it be somebody who thought he knew me. Then I thought that perhaps he wasn't looking at me at all but looking past me out the car window at something, and once I permitted myself to turn my own head in that direction to see if there was anything there unusual, which there wasn't as far as I could see. I didn't understand it, but the next time he turned his head toward me he spoke.

"Madam," he said, "there is a tiny beetle creeping up your coat collar."

"I looked down. Horrors! There was that little black bug on my white collar slowly creeping and now within an inch of the top.

"If you will permit me," he continued, "I will snap it off," which, with my grateful acquiescence he did, and he did it so smoothly and delicately that he never placed even the slightest pressure on the collar.

"He was a nice young gentleman, don't you think?"

Servants of the Poor Recruited From the Wealthy

LES DAMES SERVANTES, which is French for lady servants, is an auxiliary of the Little Sisters of the Assumption, a French Catholic order of Sisters which is doing much the same work among the sick poor as that done by the Slum Sisters of the Salvation Army. These Lady Servants are Catholic women of good social position. They are recruited from among the wealthy, for the reason that the poor would not have the spare time to do the work required by Une Dame Servante. By the aid of the executive committee of Les Dames Servantes the Little Sisters of the Assumption established their first house in the United States at 312 East Fifteenth street, New York city, some twenty years or more ago. These Sisters nurse the sick poor in their own homes. By the rules of their order they are forbidden to nurse in any family that can afford to pay. The nursing Sister may not receive any reward or remuneration whatsoever for her labors. They may not even take a glass of water or a crust of bread or an hour's sleep in the house in which they are nursing.

Titled Women Among Members of Order Which Shows Remarkable Growth Despite Great Self Sacrifices Involved

are the more sure they are of receiving the prompt attention of the Sisters.

When one of these Sisters is called to nurse in a very poor family she not alone administers the medicine to the invalid at the proper intervals, but if there be little children she washes and dresses them, she cooks the food for the family, washes the dishes, mends the children's clothes, scrubs the floors if necessary. In short, she does everything which the laborer's wife should do if she were well. It is with good intent that the words "should do" are used, for the dirt which improvidence and indolence often permit to accumulate is a prolific cause of sickness.

Into almost every poor family where the Sisters go they find the children sadly in need of clothes. In America it is in this respect that their auxiliaries, the Lady Servants of the Poor, are chiefly useful. Once a week these ladies meet and cut and make up garments for the poor.

In Europe Les Dames Servantes number scores of titled and wealthy ladies, who have known every refinement and luxury of wealth from their birth up. These ladies regularly go out with the Sisters, wash the dirty faces of the children, wash dishes, do all the work that the Sisters themselves do.

Our American Lady Servants have not yet reached that state of self-immolation.

It was the intention of the founder of the order, a Dominican priest in Paris, to reach a helping hand to the very poor, to labor among and for the very poor. By his guidance and under his directions the mother house of the Little Sisters of the Assumption was started in Paris about fifty years ago. A society of men called the Fraternite de Notre Dame de Salut was founded. The women workers in this society are called the Daughters of Santa Monica.

The work proposed by these societies is practically the same as that of the Salvation Army, and it is an interesting coincidence that these works were begun about the same time (1865), the one in France by a Catholic priest, the other in England by a Methodist minister.

The Little Sisters of the Assumption receive widows into their organization, which is not usually the case in Catholic sisterhoods.

If the references of the novice who wishes to join the order in America are satisfactory she is kept in the convent for about a year and given such duties as in the judgment of the Mother Superior will test her fitness for the life.

At the expiration of this year if she be still zealous for the cause she is sent to Paris, where she serves for two or three years longer.

At the expiration of ten years a Sister may take what is termed her final vows. No vows, however, are required for Les Dames Servantes. These women may and do fulfill their society obligations and their duties as wives and mothers.

The priest who founded this order of the Little Sisters thought that a woman can get into a family and influence that family, or even influence a dyed-in-the-wool rascal of a man more easily than any man can, even if that man be a priest, hence he entrusted the first steps to a woman, and the first Mother Superior was a young nun known to the world as La Mere Marie de Jesus.

The Little Sisters of the Assumption began their life as an organization in Paris in a subject poverty. In their first years they suffered all that poverty can bring, cold and hunger. The cause for which they were pledged was not deemed practical even by the priests and nuns.

Microphone Detective

THE microphone is applied to the detection of fire damp in mines. This is its principle: If sound waves from two pipes of equal pitch impinge on microphones connected in series with a telephone, a clear note is heard, but if one of the pipes emits a slightly different note, beats will be heard in the telephone.

Here is the application: One pipe is placed in the mine, the other above the ground and they are blown simultaneously. If the air in the mine is charged with fire damp, it will produce a different note from that produced by clear air, owing to the difference of density, and in consequence, a series of beats in the telephone gives warning of the presence of fire damp.

The same apparatus is very sensitive to the presence of coal gas.