

### RUBBER PLANTS NOW TURNING OUT FINE GAS MASKS

(By Frederick M. Kerby.) CLEVELAND, O., Aug. 17.—Gas mask protection for American boys at the front is the most complete and efficient in the allied armies. The gas mask being turned out by our plants is the finest so far devised, and offers practically complete protection against any gas the Huns have so far invented.

It is the sixth type in the evolution of the mask, but even now experiments are being made that will still further improve it. I have been permitted to watch the complete operation of the manufacture of our masks in one of the plants of the United States Rubber Company here. A large percentage of all our rubber manufacturing industry has now been turned into the production of parts for masks.

The highly perfected mask in its present form has been developed from a pocket handkerchief. The first real attempt at providing wholesale protection was the use of gauze bandage strips dipped in "hypo"—the chemical used for "fixing" photographic prints.

Then the British devised a mask with a canister containing the chemicals, a breathing arrangement connected by tube with the canister, and a pincer arrangement to close the nose. This was the first mask the United States troops used.

Our army is now making a mask which is the superior of anything so far devised. It uses the same canister, but the materials instead of being in layers are mixed; the nose is left entirely open, but the breathing is thru the mouth.

From the time the crude rubber comes into the factory to the time when the completed parts are shipped to the big assembling plant on Long Island, inspection is constant. The slightest defect results in rejection of the part.

The first order placed by our war department was with the B. F. Goodrich company, at Akron, shortly after war was declared. This order called for 150,000 masks to be produced in ten days. The manufacturers were furnished with a sample British mask and told to do their best. This order was followed at once by a second order for 320,000 masks. Other orders followed.

The hose connecting the chemical canister with the breathing apparatus must have great flexibility; in addition it must be perfectly impervious, and it must be reinforced on the outside with a stocking net to stave wear. Our manufacturers produced a concentric circle hose of great flexibility.

The "flooder valve" was another problem worked out by our rubber manufacturers. It is a small, flat valve, made so that when the wearer exhales, it permits the air to pass out, when inhalation begins it does not permit a particle of the gas-charged atmosphere to enter the mask.

American women are doing much of the work of making gas masks. The gas mask industry is an example of how peaceful manufacturing industries have been turned into war work plants and have produced a better product than German scientists who had years to prepare their diabolical devices of warfare.

### SCHOOL TEACHER CONDEMNED AS SPY

ZURICH, Aug. 17.—A telegram from Vienna published in the Journal de Geneve says Miss Milado Jamschek, a language teacher, was condemned to death by a military tribunal in the Austrian capital on a charge of espionage.

Miss Jamschek took passage from New York on the steamship with Ambassador von Bernstorff when he left this country. She made the voyage at the instance of Czech organizations in the United States to find out from the retiring ambassador, if she could, whether Austria was under German domination, what the prospects were that Austria might conclude a separate peace, and what the attitude of the Czech and Bohemian delegates might be in regard to the independence of the Czech provinces. It is said that Miss Jamschek at her trial disavowed any criminal intent, saying that she wished merely to carry satisfying news from the United States to her fellow citizens.

### CASTOR OIL BEAN INDUSTRY REVIVED BY WAR IN AIR

WASHINGTON, Aug. 17.—The great demand for castor oil as a lubricant for airplane motors has brought about the revival of the castor bean industry.

According to the bureau of aircraft production 108,000 acres of castor oil beans planted in eight southern states, and California, Cuba, Haiti and Santo Domingo is proving successful, and that the supply of oil from this territory will be available this fall and probably some of it this month. It is estimated that the average yield per acre will produce 20 gallons of oil of No. 1 grade, making 2,000,000 gallons of the first year.

Although castor beans are not native to this country, it is believed they will grow readily in the south. They can be grown between rows of citrus trees, also on land previously ruined by the boll weevil. The government will let contracts for crushing the picked crops.

Briefly, the process of manufacturing castor oil entails cold pressing of the beans, for extraction of the oil suitable for aviation engines and medicinal purposes. This oil is purified by filtration process and is then ready for use. The residue of the first pressing is treated and an additional supply of inferior oil is obtained. This is known as No. 3 grade. After the extraction of the inferior oil, castor jammee remains, which, when ground, makes a valuable fertilizer.

The results of this work, which are now well under way, are due to a great extent to the co-operation between the department of agriculture, the war trade board and the materials department of the bureau of aircraft production.

Although castor oil is not essential as a lubricant for the Liberty motor, it is necessary for rotary motors. In this type the gas is taken through the crankcase, where it comes in contact with the oil, but as castor oil is only slightly soluble in gasoline, it is practically unaffected.

### COTTON GROWN AT LAKE TULARE

TULARE, Calif., Aug. 17.—In the vicinity of Corcoran, on Lake Tulare, in the western section of this country, unusually successful experiments in cotton growing have been made this year and a largely increased acreage is planned for next season. Only the long staple cotton has been planted and the crop has exceeded all expectations both in quality and quantity. As the growers have contracted for the sale of the crop to the government at 80 cents per pound, it is proving profitable enough to induce others to change from other crops to the new product.

One advantage which growers here are said to have over those in other sections, is that with no rainfall during the period of maturity and for some time afterwards, there is no need for picking immediately after the crop is ripe. The consequence is that there is no demand for a large number of pickers for a short period, and the crop can be taken during the extended period with the usual labor available.

### It's in the Air

Windblown pollen, carrying the bacteria that inflame nose and throat and cause hay fever, is abroad in the land. One remedy is known to give relief and comfort from choking, gasping asthma and tormenting hay fever. That reliable remedy is Foley's Honey and Tar that spreads a healing, soothing coating on the inflamed membranes, stops irritating coughs and summer colds. Any one who has once used this standard cough and cold remedy will accept no other. Sold everywhere.

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### AIR RAIDS UPON GERMANS FIXED BY STATE OF WEATHER

A BRITISH AERODROME IN FRANCE, July 15.—(Correspondent of the Associated Press).—An hour before dusk, weather reports from all parts of France, as well as from London and the English coast, began pouring into the office of the "Night Bombing Squadron." When machines are going on a long flight to bomb German towns, it is very desirable to know what weather may be expected.

By means of a little balloon whose speed and direction, as it soars upward, is registered by a special instrument, the direction and force of the wind at different levels is discovered. This information tells the airman what course he must steer and what allowances he must make for deflection and wind-drift.

Preparing for Raid. The pilots and observers are called into the mapping office and the order for the night is read aloud by the commanding officer. Maps are collected, and photographs of the objective are examined, so that the airmen may familiarize themselves with the surroundings as they appear from the air.

Then they hurry away to their rooms, and get ready for the long flight thru the cold night skies.

Heavy sweaters are donned and soft leather thigh boots lined with white fleece are pulled on over thick woolen stockings. Mufflers are wrapped round necks and mouths. The airmen climb into over-all suits of waterproof material lined with long black fur. These are securely strapped at ankles and wrists. Fur-lined leather helmets and goggles are put on, and yellow whale oil is smeared over the face to prevent frost bite.

Then gathering up their thick fur gloves, their torches and maps, their sandwiches and vacuum flasks, their note-books and pens, the airmen stride awkwardly out to the aerodrome where the great machines stand silently in a dark, starry sky.

Signal. The signal is given slowly, the aerodrome lights flash and then, gathering into a column, they ascend. It rushes across the plain and climbs up into the night. It is no longer like a searchlight, but like a searchlight, like fiery eyes, Albatross where it moves in the darkness. For several minutes the pulsing drone can be heard as it glides in great circles over the aerodrome. Every eye is turned upwards watching the little lights. Suddenly a ball of red appears in the sky, drops slowly, and dies out. It is a signal describing the weather conditions aloft, and conveying an order to those on the ground.

One by one the heavy machines glide out into the night. In the light, the motor plane, the grass, and the sea can be seen. For a time, their progress is in the sky, but when a heavy engine descends on the aerodrome, while in the east beyond the German lines, can be seen the pale fingers of the groping searchlights.

### KAISER'S GOLD CUP PROVES ONLY PEWTER

ROME, Aug. 17.—In 1897 the Kaiser offered a gold cup for the automobile races of Taunus. The prize was won by the Fiat cars of Turin, and the company exhibited its trophy widely, summing it worth fully \$10,000.

A while ago the company offered the cup to the government to be melted down. It was sent to a mint, where it was found to be of base metal, heavily plated with gold. The company hastened to withdraw the gift and disbursed \$100,000 in good money to square itself with the government.

### HEATH'S DRUG STORE

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### BOYS ENLISTED TO HELP WIN WAR IN WORK SHOPS

PITTSBURG, Aug. 17.—The age limit for enlistment in the army is to be lowered to include boys of ten years. Every school boy in the United States, ten or older, is to be asked to enlist in the army fighting the Huns.

Not at the front, of course. At the work benches of all our manual training schools with the opening of the fall term the boys will get busy with saw, plane, hammer and nails to help General Pershing win the war. They are going to build furniture and equipment for hospitals, Red Cross convalescent houses and work rooms of Red Cross branches. Their products will include bedside tables, work tables for convalescents, wooden splints, crutches and orthopedic appliances, cabinets, chairs, tables, boxes, lamps, rugs, work tables, and similar articles.

The man who will inspire and lead this army of boys is F. W. Boland, head of the department of industrial education of the Schenley high school of Pittsburg, one of the finest manual training schools in the country.

Every School to Aid. Mr. Boland has been designated both by the Red Cross and the surgeon general's office to take charge of this work. He is preparing a manual which will be distributed to all manual training teachers in the country. Each school workshop will then be asked to volunteer in the "Boys' Army," and will be assigned certain articles to make.

Boys as young as ten years, in the fifth grade, who are just starting shop work, will make such simple things as plain wooden splints to be used in the hospitals "over there." Boys in the higher classes will make more complicated furniture and in the high schools substantial furnishings of all types will be turned out.

Director Boland is a genius at this work. He has invented a dozen different types of furniture and appliances to be used in hospitals and Red Cross work. He has designed a Red Cross work-table on which bandages of any length and width can be laid out in quantity with an electric cutter.

Designs Are Approved. A convalescent table to be used in the work of reconstructing disabled men is so light that it can be lifted over the bed by a nurse; when not in use it folds up completely, yet it is so strong that work with tools can be performed by the patient in bed. It is so simple that boys in an advanced woodworking shop can make it from a drawing. "We have already turned out quite a lot of furniture for the Red Cross convalescent houses at the various cantonments," said Boland.

### ALLIED CAPITALS TO FURNISH MUNITIONS TO THE SIBERIAN

WASHINGTON, Aug. 17.—The pressing need for arms and ammunition by the people of western Siberia, who have arrayed themselves against the forces of German and Austrian prisoners and the German-influenced Bolsheviks is being considered in the allied capitals, according to information available today. The answer of the allied nations to this appeal has not been disclosed, but it can be stated on high authority that the United States government is anxious to be of whatever service possible.

Western Siberia is said to be well organized and is conducting business in an orderly manner. The people have never accepted the surrender to Germany under the Brest-Litovsk treaty and have refused to permit the Bolsheviks to ship from this district millions of tons of supplies stored there and which have been bought and paid for by the German government.

The governing body of western Siberia, according to official information received within the last three or four days, is composed of men of high standing duly elected to the constitutional assembly and headed by Premier Vologodski, who also is acting as foreign minister. The seat of the government is at Omsk.

According to advices reaching the state department, if they had arms and equipment they could at once put a formidable army in the field.

### PLAN TO MAGYARIZE SCHOOLS IN HUNGARY

ZURICH, Aug. 17.—Zichy, the Hungarian minister of instruction, has decided to take a census of the schools this year, carrying out the purpose of his predecessor, Count Apponyi. He has informed the Roumanian bishops of his purpose. Baron Horvath has been appointed government commissioner for the work in Transylvania. The purpose of the census will be to Magyarize the Italian and Roumanian schools.

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### One Woman's Experience With Electrical Cooking

At a recent Red Cross meeting, one of the women said: "I always thought electric cooking was expensive. This was the only thing that kept me from having an electric range long ago. But I really cheated myself all these years, for I find electric cooking, rightly managed, is economical, makes better flavor and savor, and saves nutriment and food value."

The California-Oregon Power Co. tell me that I can use the same amount for light with an additional 1,500 KW hours per year for \$1.57 per month more than I paid for lights alone at their new lighting and cooking rate, which is as follows:

Table with 2 columns: 'This is what I paid for lights only during the year 1917' and 'The California-Oregon Power Co. tell me that I can use the same amount for light with an additional 1,500 KW hours per year for \$1.57 per month more than I paid for lights alone at their new lighting and cooking rate, which is as follows:'. Includes sub-tables for monthly KWH consumed and cost, and monthly lights and cooking costs.

Is the true experience of others worth anything to you? Must you wait years to know what it means to prepare wholesome, savory meals, in a cool kitchen, in a jiffy? Come! Let us show you exactly what electric cooking IS and DOES!

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