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HANDBOOK OF INDUSTRIES IN JAPAN

ASSEMBLAGE #43

SUPPLEMENT II-A
Additions to Sections on
JAPAN PROPER

~~RESTRICTED~~

Research and Analysis Branch
OFFICE OF STRATEGIC SERVICES
HONOLULU
July 14, 1945

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (F)
NN 750120
By CS/ST NARS, Date AUG 19
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UNITED STATES GOVERNMENT
OFFICE OF STRATEGIC SERVICES
RESEARCH AND ANALYSIS BRANCH
HONOLULU OFFICE

TELEPHONE 3624

20 July 1945

Admiral Chester W. Nimitz
Commander of the Fleet, POA
CINCPAC
Pearl Harbor, Oahu

My dear Admiral Nimitz:

This Office is sending you herewith a copy of
our latest compilation of broadcasts from Radio Tokyo and
affiliated stations, Assemblage #43, Supplement II-A,

HANDBOOK OF INDUSTRIES IN JAPAN.

Very truly yours,

W. C. Handy

R&A Branch, OSS Honolulu

~~RESTRICTED~~

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IN JAPAN
WITH INDEX

ASSEMBLAGE #43
Supplement II - A
Additions to Sections on
JAPAN PROPER

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FCC short wave intercepts from
Radio Tokyo and affiliated sta-
tions from November 1, 1944 to
May 31, 1945. Compiled by
Research and Analysis Branch
OFFICE OF STRATEGIC SERVICES
HONOLULU

HANDBOOK OF INDUSTRIES IN JAPAN

WITH INDEX

NOTE

Shipbuilding and Foodstuffs industries are not included in this Assemblage, the former having been covered in Assemblage #54, TRANSPORTATION AND COMMUNICATIONS IN JAPAN, the latter being reserved for treatment with agricultural programs.

Only those financial organizations directly concerned with industrial programs are given in this compilation.

Under MISCELLANEOUS INDUSTRIES, data about industries not named in the main list are recorded, as well as about those concerns which handle more than one industry. Under GENERAL, items of general application to all industries are listed.

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H A N D B O O K O F I N D U S T R I E S I N J A P A N

A I R C R A F T I N D U S T R Y

CONVERTED FACTORIES

Nagano: Katsutaro Nagata, 51, of Inatomi-mura, Kamiyina-gun, has a small factory and, although operating on a small scale, is leading the workers in boosting the production of aircraft parts. Mr. Nagata has spent 34 years making bicycle parts, during which time he invented 54 different kinds of machine tools and machines, such as the machine tool bite feeder. He became quite an inventor and it is no wonder that practically his entire factory is equipped with tools and machinery built by himself from a conglomeration of odds and ends. His turret lathe and screw cutters are as effective as the ones costing tens of thousands of yen now in use in large factories. (Tok. Jap. 11/5/44)

Under the title "Textiles to Airplanes," a political commentator, in an article contributed to the NIPPON TIMES, gives the answer to what has happened to Japan's textile industry since the war began. Excerpts of the article follow: ...Today only 30% of all Japanese spinning mills are operating as before, with part of them producing military fabric as well as cloth for domestic needs. About 10% of the weaving and spinning facilities have been transferred to various parts of GEA, where they are producing materials for clothing for respective local inhabitants. Finally, over 50% of the remaining mills have been converted, wholesale, into munitions plants, especially for production of war planes. ...Someone has characterized the war of GEA as a revolutionary era of industrial changes -- a change from light to heavy industries and from textile to precision equipment enterprises. The textile industry has followed that analysis to the letter today. ...In some of our former silk mills, cocoon dryers have been altered into heat regulating plants, treading plants into pressing plants and thread refiners into assembly plants. Originally these mills were scattered over the country, in a policy of decentralization. Dispersing of aircraft works was therefore automatically accomplished with conversion of textile plants. Another significant phenomenon accompanying the conversion is the great but smooth change which has occurred in the occupation of former mill workers. Young girls of 16 and 17, who used to toil to make it possible for American stenographers and society matrons to flatter their legs with sheer silk hosiery, are already fabricating and riveting aircraft. You will find them with Rising Sun towels wound around their heads, and that means a great deal. It means that they have agreed to work until the end of the war with the spirit and conviction of the Kamikaze fliers... The girls there produce almost everything connected with airplanes, including aircraft parts, wings, fuselages, and assembly. In November, these girls took their male bosses by surprise when they beat their quota by 180%... (Tok. Eng. 1/3/45)

It has just been announced that Japan's machine tool production during the three-month period from October to December, 1944, hit a new high in both value and quantity, topping the past highest record so far by some 10%. Since the emergency measure for production of machine tools which are necessary for boosting the aircraft industry was approved by the Cabinet Council in August, 194(2), the machine tool industry each month achieved a record-breaking expansion in output. The phenomenal record achieved in the recent three months is especially noteworthy (for it was achieved) by the part of the machine tool industry which has been transformed into plants for the manufacture of aircraft. (Tok. Eng. 1/25/45)

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CORPORATIONS AND COMPANIES

Hidachi Manufacturing Company (Hidachi Seisakusho)

See MISCELLANEOUS, Research, Progress & Awards, 12/5/44.

Japan Airplane Gymnastics Equipment Company (Nihon Kookuuki Taisoo Kikai Kaisha)

Tochigi: A new...will make its appearance and be distributed for the training of young boy flyers. There is now an excellent wooden model of this pilot training equipment, and mass production is under way. Koichiro Takahisa of the Japan Airplane Gymnastics Equipment Company (Nihon Kookuuki Taisoo Kikai Kaisha) of Numabukuro, in the town of Ota, undertook the manufacture of the equipment, and his efforts were crowned with success. He has received the official stamp of approval from the Welfare Ministry. The metals formerly used have all been replaced by the wood from the nettle tree, the cherry, and other various types of tough lumber. Not only is the need for metals eliminated, but also the equipment, because it is easy to handle, can be managed by any small boy. This equipment is being heartily welcomed by the boys. (Tok. Jap. 3/26/45)

Kamanishi (Kawaguchi) Aircraft Company

The (Kamanishi or Kawaguchi) Aircraft Company has received a congratulatory telegram from Lieutenant General Saburao Endo, director general of the Aircraft Board in the Munitions Ministry, praising the concern in the production of new type aircraft which has given hard blows to enemy planes which came raiding the mainland. (Tok. Eng. 4/11/45)

Nakajima Airplane Company

See MISCELLANEOUS, Research, Progress & Awards, 12/5/44.
See AIRCRAFT, Government Administration, 3/9/45.
See AIRCRAFT, Labor, Special Attack Corps, 12/25/44.

Tanabe Aircraft Goods Company

See GENERAL, Government Administration, Munitions Ministry, Designated Firms, 12/26/44.

CONTROL ASSOCIATIONS

Aircraft Industrial Association

See IRON & STEEL, Appliances, Japan Steel Tube Welding Control Association, 11/3/44.

The Aircraft Industrial Association, ever since it was established in January of last year, has been enforcing various plans for the production of airplanes in cooperation with the Munitions Ministry. However, in view of the fact...or not we can survive...of the decisive war depends on the production of aircraft, the Aircraft Industrial Association has gathered men learned and experienced in this field and set up a Coordinative Deliberation Chamber at this time. The Coordinative Deliberation Chamber will undertake the deliberation and formulation of the coordinative and planned function of the various measures concerning augmentation of aviation fighting power. A chamber head and a few staff members and expert committee members will be appointed to this Coordinative Deliberation Chamber. Mr. Naomi Kiagawa, director of General Affairs of the Aircraft Industrial Association, has been appointed the chamber head, while the staff and the expert committee members will be officially appointed

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Aircraft Industrial Association

in the future. Moreover, the Business Affairs Bureau of the Chamber will be divided into three sections. The first section will handle the planning of the people's movement to promote increase in production of aircraft and other matters. The second section, among other things, will devote itself to the finding of solutions to the bottlenecks in the production of aircraft and to the strengthening of the setup of the enterprise. The third section will be in charge of information and newspapers. (Tok. Jap. 5/25/45)

PROMOTING ASSOCIATIONS

Dai Nippon Aeronautical Society

The Dai Nippon Aeronautical Society today held a directors' meeting at the Nippon Industrial Club, electing president and vice president Naomichi Kataoka... Former president, Harumichi Tanabe, and former vice president, Takeo Hori, were nominated for advisers to the Aeronautical Society. (Tok. Jap. 3/7/45)

Japanese Aircraft Industry Association

The Japanese Aircraft Industry Association, to boost further aircraft production, decided to set up a board for overall planning, to be composed of select men of learning and experience in the field of aircraft industry. In view of the important role played by aircraft, particularly at this decisive stage of the war of Greater East Asia, this step was taken to expand the nation's aerial fighting power by an overall formulation and enforcement of urgent measures. It is recalled the Aircraft Industry Association organized in January, last year, and has directed all its efforts toward increasing the output of aircraft, in close cooperation with the Munitions Ministry. (Tok. Eng. 5/24/45)

The government invited 130 delegates of the aircraft companies in Tokyo to the official residence of the premier at 1600 today and held an encouragement meeting. The meeting was attended by, among others, Premier Suzuki, War Minister Anami, Navy Minister Yonai, Munitions Minister Toyoda, and State Minister Shimomura, from the side of the government, and Vice President Kiyoshi Goko of the Aircraft Industrial Association, and all delegates, from the side of the public. The meeting was opened with an address by Premier Suzuki, in which he requested the industrial warriors to rise to action to accomplish their respective duties with a firm determination to decide the fate of the war through aircraft production. This was followed by addresses by Munitions Minister Toyoda and President Shimomura of the Information Board on the urgent necessity for aircraft production. Mr. Goko delivered an address in reply, on behalf of the civilian delegates, and the meeting was temporarily adjourned. The meeting reconvened at 1700 and the delegates of various aircraft companies, including Kiyoyuki Nakajima, discussed various matters with the representatives of the government, from Premier Suzuki down. (Tok. Jap. 5/24/45)

FINANCING ARRANGEMENTS

Pre-payments to Converted Factories

As a measure to increase the production of aircraft parts, the conversion of machine tool factories was effected sometime ago and it is hoped that through it the war strength will be increased. However, in connection with the production supply maintenance system

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FINANCING ARRANGEMENTS

Pre-payments to Converted Factories

of machine tools, effected at the beginning of this year, the so-called pre-payment problem is still to be solved. The problem of pre-payment arose as a result of the introduction of the supply maintenance system. By revolutionizing the usual system of meeting demand and supply, the problem arose as to how the pre-payment to the machine tool manufacturers should be disposed before the maintenance system is applied. Consequently, the Munitions Ministry laid out the outline for the disposition of pre-payment, along with the supply maintenance system. The method taken has been to dispose of the matter with the funds from the Wartime Depository, paying out, as adjustment funds, to manufacturers who need a pre-payment. In other words, the pre-payment is a loan from the depository. Many machine tool manufacturers, and mainly the converted factories, are still uneasy over the disposition of this matter. The basis for this uneasiness, as pointed out by these factories, lies in the fact that it is not easy to go into production after conversion, because of lack of funds and other factors, and that in taking into consideration the management of their enterprises in the future, it would be difficult to return the loan. The grievances of the factories concerned are listed as follows: The difficulty of paying the yearly interest on the loan. The point is that as it stands now, aside from the fact that the factories cannot expect any new pre-payments after the supply maintenance system has been put into effect, the mobilized factories are relying solely on manufacturing profit and, consequently, it would be difficult to pay back the loan in three years on a yearly installment. Moreover, in view of the fact that the fixed price on machine tools is low, from the standpoint of profit and loss, most of the factory operators are not able to pay the yearly 5% interest on the total loan. Finally, it appears that in anticipating a shortage of funds in the future, the factory operators fear that they would have to mortgage their factories in the event that a loan is needed from the Wartime Depository. At present, as the machine tool manufacturers, and especially the converted factories, require huge sums of capital, it is asserted that to offer the factory as collateral would result in hardships on the civilian investors. (Tok. Jap. 11/8/44)

(A continuation of the above item)

The foregoing paragraphs practically cover the pre-payment problem but, basically, the matter lies in the fact that the management of these converted factories and of others concerned has no clear insight into the future of their operations, and also that the authorities concerned do not have a definite policy on the matter. A policy on pre-payment is desired. A definite course should be set on the matter of pre-payment and a policy, which clearly manifests the enterprises' national color, should be laid out for the (wd) factories. The management concerned must also manifest a steadfast spirit such as would enable the concentration of effort toward boosting the war strength. It is desirable that the management express its wishes or make any suggestions to the authorities without hesitation. It seems that most of the arguments concerned with pre-payment come from medium and small operators of converted factories. Today, when greater production of aircraft parts is urgently needed, steps to solve the problem should be taken immediately so that the schedule of aircraft parts production is kept up. Fortunately, several conferences in regard to conversion have been held by those directly concerned. As the discussion is being carried out in concert with the aircraft factories, much hope is given to its outcome. It is believed that the management, in close cooperation with the authorities concerned, is giving careful consideration to the financial problem revolving around pre-payment and the future course of the enterprises. Therefore, although the conversion of factories may

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Pre-payments to Converted Factories

not be as it should, there is no need to doubt the future of these factories. For instance, in the event that these converted factories again resume their manufacture of machine tools, proper steps will undoubtedly be taken to assist them. It is essential that every effort be made to increase the productivity with the progress of the war. It seems that if there are any apprehensions among the converted factories and the management of some machine tool companies, the authorities concerned should set a definite policy or some immediate course which will alleviate this apprehension, thus assuring the mobilization of machine tool factories and their production.

(Tok. Jap. 11/9/44)

Contributions for Planes

There is a "contribution village" in which the action guilds raised one tanbu (one tanbu is 1186.15 sq. yds. - Tr.) of flax per house and donated the crop to the navy, to be used for airplane wings to crush the enemy at one blow. At this time, when all towns and villages are contributing..., Mr. Mankichi Suzuki of the (Hinoki Shii) Hamlet of the village suggested at a...meeting that they donate flax in place of... The suggestion was adopted by the meeting. This movement was carried out throughout the village. Each house (raised) one tanbu of flax in addition to the quota designated by the village office and, calling the patch a "Fighting Might Patch," has literally taken pains from the (planting) to the shipment. On December 20, through the...of the (Kanjumai-Kanno) Service Corps, 2,740 kin (one kin is 21.16 lbs. - Tr.) of the fruit of sincerity were entrusted with the village master. ...the 6,449.05 yen will be donated to the navy, through the village master, in the near future.

(Tok. Jap. 12/21/44)

Contributions to the Army and Navy Aircraft Fund, sponsored by ASAHI SHIMBUN, which have been increasing by leaps and bounds ever since the great naval and aerial victories scored off Taiwan and the Philippines and recently by exploits of the "Kamikaze,"... finally topped the 30,000,000 yen mark yesterday, the journal revealed today. It said the actual total amounts to 30,038,391.64 yen.

(Tok. Eng. 12/27/44)

The students of Sano National School of Sano City in Tochigi Prefecture have a fund called, "Annihilation Fund." It is said that once a month a framed picture with the inscription, "Annihilation," will be posted on a pillar of this school. Then the students will donate to this fund from their own precious money. In this manner it is reported that these young Japanese youths are showing their true spirit to annihilate the enemy by contributing to this fund, which will be used for the increased production of airplanes.

(Tok. Jap. 12/30/44)

The Japan Education Society last April launched a movement to donate money to build a fighter plane, to be christened the "All Japan Students' Plane." The first donations consisted of 450,000 yen each to the War and Navy Ministries. On April 8, on the occasion of Imperial Rescript Day, the second donations were made. One million three hundred thousand yen were donated each to the War and Navy Ministries, bringing the total to 3,500,000 yen, thus bringing the movement to a successful conclusion.

(Tok. Jap. 4/8/45)

Students of the Ido National School, ...Yamaguchi Prefecture, donated one fighter plane to the navy for Anglo-American destruction. Even

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though we herewith state that they donated one fighter plane, we mean that they donated money to build one fighter plane. This is money received in gratitude for the cooperative pitching in of Ido National School's students, its teachers, graduate students and villagers in labor service activities. The money at this time totaled exactly 80,000 yen, so recently it was donated to the Yamaguchi Regional Naval (Affairs) Department.

(Tok. Jap. 5/10/45)

GOVERNMENT ADMINISTRATION

Air Arms General Bureau, Munitions Ministry

To form one air force, abolishing the army and navy air forces, would not be desirable in Japan because of the different characteristics of army and navy planes, explained Premier General Kuniaki Koiso at the plenary session of the Budget Committee of the House of Representatives, Thursday, in reply to Toshiro Kishii's question as to whether various types of army and navy planes could be put on a unified basis. Premier Koiso declared that army and navy planes, particularly in Japan, have different...development, for planes used in land battles and those used in sea fights naturally must have different characteristics. He added, "therefore I believe that to unify army and navy planes would only result in hindering their development. Of course, there are common points, too, and for these developments we must adopt proper administrative measures, for these are desirable to effect unity wherever such a step is possible." He stressed that, on that account, the Air Arms General Bureau was organized in the Munitions Ministry to deal with all affairs concerning production of airplanes for both the army and navy. "This, I believe, marks a great step forward in the field of aircraft production," the premier said. He added, "I will also mention that recently it was found that, though army and navy planes differ to a certain degree, they could be placed on a common basis in some measure. Thus, in the field of aircraft production, such differences are now being gradually adjusted."

(Tok. Eng. 1/27/45)

State Management; Munitions Arsenal

Shichiro Oka, Kooyuu-kai: "I believe that government management of civilian-owned factories would be effective as a measure in increasing aircraft production. What does the government think?"
Munitions Minister Yoshida: The aircraft industry of our country has been developed by private enterprise... There are many points to be studied in regard to government operation. The main point is to give full play to civilian enterprisers' will to produce more. Government operation of civilian factories over a wide field is not so simple."

Takuo Godo, Kenkyuu: "The essence of wartime administration lies in the introduction of measures which will be effective to the highest possible degree. The government's policies are not being carried out swiftly and government directives lose their strength as they go on down the line. No matter how good a policy may be, it is ineffective unless its objectives can be swiftly achieved. What is the premier's view?"

Premier Koiso: "By effecting closer relations between the presidents of the regional administrative councils and the munitions superintendents departments, we are working to speed up the enforcement of policies and directives to every corner of the nation. We are anticipating very favorable results from this plan."

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GOVERNMENT ADMINISTRATION

State Management; Munitions Arsenal

Godo: "Have you any intention of establishing a wartime labor ministry in order to unify the administration of labor? I believe that a thorough unification of planning is necessary for a wartime administration. Right now, both the army and navy establishments have separate machineries installed. If they can be brought together, we can make a saving of 20% in materials and a 50% increase in production."

War Minister Sugiyama: "The army and navy are placing emphasis on the unification of planning. We have formed a joint technological board, which is making a strenuous effort in the work of regulating plans. Any plans which will work out for mutual benefit, and which will be more effective under entire national planning, will be sent to the Board of Technology, which will activate them on a national basis. On the other hand, there are urgent demands immediately. We are unable at times to carry out our intended plans."

Navy Minister Yonai, who is earnestly working on the unification of planning, also gave a report. (Tok. Jap. 1/31/45)

The Government Cabinet Council today decided to adopt emergency measures calling for state management of certain specific aircraft under enemy air raids. The present emergency measures, which are expected to go into effect April 1, are based on Article 13 of the National General Mobilization Law. The measure constitutes the first step forward toward the enforcement of a previous decision by the government on "measures concerning the structure of munition production enterprises and the operation thereof," which (authorizes) the government to take over the management of any industrial enterprises whenever the war situation or financial or other conditions of the enterprise concerned warrant such arrangements. The present emergency measure will authorize the Munitions Ministry to manage certain specific aircraft plants and to use the land, buildings, machinery, tools, and all other installations belonging to the plants. It is understood that, while plants taken over by the Munitions Ministry will assume the status of government enterprises under the jurisdiction of the same ministry, operatives and other employees will retain their present position for the time being. It is further understood that, in operating aircraft plants under the new measure, the government will disregard the factory regulations hitherto in force or..., in order to combine the best parts of both state and civilian management for the greatest efficiency of the plants. (Tok. Eng. 3/2/45)

The primary motive for placing the airplane factories under government control is due to the necessity of exercising a stronger and closer supervision over the entire group engaged in the manufacture of airplanes, which should serve as the measure of our war strength in the face of the ever-mounting menace of enemy air forays. ...The reason why the airplane factories have been selected as objects of the government control is due to the fact that they are usually the first targets for planes on raid. To leave the responsibilities connected with reparation of damages resulting from air raids to civilian concerns would not suit the varying circumstances of the different localities. For this reason, and to ease reconstruction work without a hitch of any sort, the government saw fit to place airplane factories under government control. The above are the primary reasons why the government took over control of the plane factories. Another reason which contributed towards government control of the plane factories is to obtain an accurate estimate regarding the number of planes produced. Under civilian enterprise, an accurate check in this connection is hardly possible. ...In order to increase plane production, the government has made it plain that

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State Management; Munitions Arsenal

it will resort even to strong measures to gain its purpose. It is obvious that if the state of affairs should take a turn for the worse, all the plane factories throughout the country will be placed under government control. The next thing has to do with the governing of the plane factories placed under government supervision. Under this policy, those factories brought under government control will be placed under government supervision and rules and regulations concerning their operations, and will be handled by the government. However, the actual ownership title is to remain vested with the original owner. Only the operations will be under government control. ...One thing which should be given serious thought in connection with centralization of plane factories is the attitude of the people regarding such a change. ...The demand for government-controlled enterprise is gaining increasing support from civilian quarters. Granting significance to such a development, the stand taken by the government lately could be construed as a response to the gradual mounting of the civilian demand for government-controlled enterprise and an indication that the development of airplanes has progressed one step farther. Next, concerning the arrangements with reference to the use of factories under state control: Their use will involve the designation of factories and industrial plants falling under such category and the matter of deciding rental fees for the rights of using same. In deciding the rental fees, the past and present values of land and buildings are taken into consideration... In other words, the factories will become special factories, with legal rights but with no power to manipulate the funds of the factory. The problem which will present itself after the factories become centralized will be that dealing with the incumbent members of the staff. Under the new setup, staff members will become government officials and factory hands will become civil servants and their status elevated from plain civilian to that of public servant. They are to carry out their duties under the strictest of regulations. The conduct, discipline and general welfare of staff members will be governed by rules and regulations recognized by both officials and non-officials as outstandingly good. The bad ones will be weeded out. The workers self-governing tendencies are to be respected. Although the workers have revealed self-sacrificing efforts, the present setup should spur them on to double and treble their efforts in their line of duties. Among other things, the one thing outstanding and worthy of observation under government supervision of factories is in connection with the distribution of manpower. It seems as if the government's intentions are to respect the present setup, insofar as distribution of manpower is concerned. However, this does not necessarily mean that the present incumbents will immediately be promoted as heads of the state-controlled factories. It is apparent that the intention of the government is to select someone with influence and power to act as the supreme head of the factories. ...The government's intentions are to specially select someone with influence and power and install him as the supreme head of the factories. From the standpoint of production efficiency, especially under the present war conditions, calling for production of 100,000,000 ..., the state-controlled enterprise will not have to worry over lowering production rates. The change in the state of affairs and the growing desire to destroy the enemy should render additional aid towards making preparation.

(Tok. Jap. 3/5/45)

The Munitions Ministry, in accordance with the policy relating to the state management of special aircraft factories, which was adopted by the cabinet on March 2, announced that the establishment of an organization tentatively named as the Munitions Arsenal

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GOVERNMENT ADMINISTRATION

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(Gunju Kooshoo) has been started with the naming of the Preparatory Committee. The committee is headed by Kiyochi Nakajima, president of the Nakajima Aircraft Company, and is composed of members from both civilian and government circles. The committee is divided into three groups -- organization (soshiki), planning (kikoo), and management (keiri) -- which will strive to solve their respective problems. (Tok. Jap. 3/9/45)

In accordance with the decisions taken by the Cabinet on March 2, the Munitions Ministry organized a Preparatory Committee for the establishment of a Munitions Arsenal, under the "Japan-owned and government-operated" policy for designated aircraft factories. The organizational structure will be completed on April 1, and an Imperial ordinance relating to the revision of the system of hiring temporary personnel for the Munitions Department is expected to be promulgated immediately. The ordinance will be effective on the date of issue and Munitions Minister Yoshida will invite the managing staff of the new arsenal to his office and deliver the instructional address. The prime purpose of the Munitions Arsenal is to increase the production of aircraft. It is noteworthy that the regulations that will govern the operation of the arsenal will be limited to five. Detailed and cumbersome regulations have been avoided. Vast powers have been invested in the chief of the Munitions Arsenal, enabling him to put his ability to maximum usage.

(Tok. Jap. 3/31/45)

In order to plan for maintaining and (supplementing) airplane production under air raids, the government...transferred some of the factories under government management on April 1... The production efficiency of these munitions factories improved remarkably since then and efficiency during April made marked progress compared to March. Furthermore, the production efficiency this month showed an excellent record in (exceeding) that of April. The main reason why the production efficiency of the munitions factories improved was that the idea of munitions factories being under government management has (struck) the leaders, workers and students, and a marked number of patriotic workers were (employed). ...In the past, there were some regrettable matters not conforming to the war situation and the (supervision of the munitions factories and arsenals), but this new measure was enforced on April 1, with the true cooperation of government officials and civilians, in order to ensure the production of airplanes and, at the same time...the working system.

(Tok. Jap. 5/31/45)

A four-point program for boosting production of aircraft to cope with the current situation was proposed to the government today by Kokusaku Dankokai (society for carrying out national policies-- Domei). The program, which was handed in a written form to Premier Admiral Kantaro Suzuki by Sozaburo Yokoo, president of the society, calls for speedy execution of the following proposals: Firstly, powers and functions of the Munitions Ministry should be enlarged through the incorporation into the ministry of all technical sections of army and naval aviation headquarters... Secondly, headquarters for production of wooden planes should be created, in view of the urgent necessity of large-scale production of wooden planes. Thirdly, special wartime employment regulations should be enforced with a view to empowering the munitions industry to take measures needed for more effective employment of manpower mobilized in the war production. Fourthly, workers engaged in war production should be accorded military status as "soldiers on the production front." The government should take special care of these workers and their

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families by supplying food, clothing, and living quarters. In case these workers are killed by enemy air raids, they should be given the same treatment as a civilian employee of the army and navy.

(Tok. Eng. 5/24/45)

RESEARCH, INVENTION, DISCOVERY

German Inventions Sent to Japan

From Zurich: It has been revealed by the German depth and rocket technical expert, Lieutenant (Zwenger), that turbine engines and plans of Germany's latest jet-propelled aircraft, which are faster than sound, were sent to Japan by submarines in January, this year. On January 8, three submarines left for Japan, carrying two completed jet-planes, 12 turbine engines for rocket planes and 22 engineers from the Messerschmitt Factory and three from the Junkers Factory.

(Singapore Eng. 5/27/45)

Aviation Research Laboratory, Miyagi-Ken

The Aviation...Research Laboratory, which had been under construction, has just recently been completed and studies were begun from the beginning of this month, December, 1944. Despite the severe cold in this area, the many research students as well as the head of the laboratory, Professor Kato, silently continue to carry on their studies diligently, experiencing the same conditions as the soldiers combating the cold weather in North Chishima and the Aleutians.

(Tok. Jap. 12/11/44)

Koomei Research Laboratories at Omuta, Fukuoka

The (Koomei) Research Laboratories at Omuta, in Fukuoka Prefecture, have succeeded in making airplane control rods from bamboo. The rods of bamboo are joined together securely into one piece by a special method. This product is 170% stronger than that made of Duralumin, and has a sufficient amount of pliancy. It is very durable, with its resistance to heat, water and oxygen unequalled. In view of this, factories are already producing this product on a full scale basis.

(Tok. Jap. 12/16/44)

National Research Institute

Recently the newspaper, ASAHI, described new weapons conceived by three leading Japanese scientists. The first plane, three times as large as the American B-29, was conceived by Prof. Fumio Yamamoto, who is a member of the National Research Institute. It is constructed with 6 engines, each developing 4,000 horsepower, and will operate by radio-controlled pilotless planes half as large as the fighter, which will be loaded with special high-powered explosives... These fighter planes will fly at an altitude of some 20,000 meters and will let loose thousands of pilotless air torpedoes capable of reducing vital cities to ashes. The plane is also capable of controlling unmanned small torpedo boats attaining a speed of 300 kilometers and loaded with enough explosives to sink, instantaneously, an enemy battleship of the 45,000 ton class. These torpedo boats will be powerful enough to wipe out an entire enemy convoy.

(Batavia Eng. 1/17/45)

Oji Paper Manufacturing Company

At this time, when the plywood industry is being rapidly developed,

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RESEARCH, INVENTION, DISCOVERY

Oji Paper Manufacturing Company

a pressed board from pulp, which is comparable to plywood, has been developed by chemists of the Oji Paper Manufacturing Company. This new development is now drawing attention as an important strategic material. The (budomari) of the plywood from birch, used at the present time to manufacture aircraft, is approximately 10% while that made from beech is 15%. In comparison, this new pulp pressed board will reach 50%. Its tensile strength and tenacity both excel that of plywood. The outstanding feature of the paper pressed board is its uniformity of... During the early stages of the experiments, the tenacity of the new product was somewhat doubted because of the ...fiber of pulp, but this fear was overcome and now only the problem of elasticity remains. Further experiments are being carried out. A resin compound, using carboic acid, is employed as the binder. To save binder in the manufacture of wood plyboard, only 16% of the total weight of the plyboard is allotted to the binding agent. Pulp pressed board requires only 10% of binder in total weight. Moreover, the latter can be manufactured from all kinds of materials, whereas wood plyboard requires the use of good materials. A bright future is seen for this new product.

(Tok. Jap. 1/30/45)

Suzuki Aviation Food Research Institute

A new form of press, which will make possible the large-scale production of wooden propellers, has been recently developed by the Suzuki Aviation Food Research Institute here and will be officially adopted for use hereafter. This new press is acclaimed here as superior even to that produced by the Universal Company of the United States. The process hitherto employed in manufacturing wooden propellers had two defects: (1) The block had to be kept more than 21 hours under the press during the process of heating it up to one three (sic) degrees and then lowering the temperature to 60 degrees in order to harden the glue. (2) Due to the use of hydraulic pressure, the pump propeller lacked uniformity of strength and time. It was in order to remedy these two defects that the above-mentioned Suzuki Institute undertook research, aiming at producing with a single press a number of propellers of uniform strength during the same length of time. Although there seems, at first sight, no direct connection between propeller manufacturing and the food research laboratory, this apparent inconsistency can be well understood when one realizes that this laboratory has been using an excellent press for extracting oil from rice bran. Thus a good press is an absolute requisite not only for oil extraction but also the manufacture of wooden propellers. Noteworthy features of this newly invented press are: (1) the attachment of rails, and (2) the adoption of a compressor pattern fitted with bolts which will effectively adjust variations in tensile strength in different parts of the block.

(Tok. Eng. 5/19/45)

PRODUCTION PROGRAMS

Ehime Prefecture, with increased airplane production as its objective and as a stimulant to the workers themselves, launched a movement, the first of its kind in the country, by appealing to its residents to support the movement for rushing airplane production. The appeal calls for the contribution of rice, wheat and sweet potatoes, which are being sent to workers at the mine and factory. In appreciation of the movement, the workers are putting in day and night efforts and the results have been far above expectation. The third movement towards rushing airplane production will be consummated at the end of the month. However, next month a fourth attempt at similar

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movement is being planned. (Tok. Jap. 1/26/45)

At the meeting of the munitions financing committee of the Lower House, Director Endo of the Aircraft Ordnance Bureau General replied as follows to the question of Kazu Miyazaki in regard to aircraft production: "It is true that construction work on aircraft plants, as well as that for related industries, was curtailed somewhat last year, but that was for the purpose of preventing the flow of vital materials needed for ordnance into construction fields alone. The bottlenecks in plane production are not in facilities or equipment. Welding and casting techniques have been at a low ebb but, since enlisting the services of authorities last year to be given guidance in the promotion of production technique, exceedingly gratifying results have been obtained." (Tok. Jap. 1/27/45)

Endo admitted the existence of certain previous bottlenecks, but then assured that they had been cleared. New plants are rapidly being erected and the technique of plane part manufacture has been perfected and simplified for mass production, to guarantee an exceedingly bright prospect in the near future.

(Tok. Eng. 1/27/45)

The NIPPON SANGYO KEIZEI, leading economic daily in Tokyo, today stressed the urgent necessity for increased aircraft production as a means to cope with the enemy's aerial warfare, in an editorial captioned, "Fight Airplanes with Airplanes." Excerpts of the editorial follow: It is often said that the entire nation must take part in the fighting, armed with bamboo spears, should the enemy dare a landing on the Japanese homeland. This, of course, means that the entire nation is determined to fight to the last man in defense of our beloved land. It does not mean, however, that an enemy landing on the soil is unavoidable, or it is advisable to carry out decisive fighting only when the enemy approaches Japan's mainland. Nor does this warrant the manufacture of bamboo spears for training at the sacrifice of aircraft production. It is needless to say that bamboo spears are far inferior as weapons to aircraft; wherefore, it is clear we must have sufficient aircraft in order to meet the enemy air attack. Production of aircraft should be maintained with every possible effort. The more the fighting in Okinawa becomes intense and the more the enemy's aerial attack on Japan proper becomes severe, more attention must be paid to increased production of aircraft. The necessity of producing more effective weapons than the enemy's cannot be denied; however, such efforts should not relegate the vital matter of increased production of aircraft. Our efforts, presently, must be concentrated on the sole aim of more planes, in order to destroy the enemy's air strength.

(Tok. Eng. 5/29/45)

Wooden Planes

Talk by Tanaka of Munitions Ministry: "It is regrettable to note that, despite the fact that we own one of the world's most outstanding timber resources, we are far behind the others in the construction of wooden planes. ...That wooden planes were believed to be unsubstantial, plus the fact that manufacturing facilities were neglected, accounts for the lag in the construction of wooden planes. However, it has been proved that, under a proper process, a wooden plane could be built which would outdo a metal plane in speed, cruising range and durability. Insofar as radio (actions) are concerned, the wooden planes have been proven to be practically nil. It is not a question of like or dislike. It is important that we muster every resource under our command and press it into service. We must do this in order to cope with the might of the American air power. It thrills

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me to visualize the resulting air battles in which these planes could be pitched against the Grumman and B-29's, which have been disturbing us on all fronts. Timber will supplement the metal shortage and serve as a means for liberating us from a dearth of material for plane construction. ...The wood is graded into two groups. When planes are constructed from wood falling into the better grade, it is claimed that they are just as substantial as those constructed with metal. In fact, after completion, the difference is so minor it is difficult to distinguish whether wood or metal has been used in the construction. The fir, Japan cypress, pine tree and paulownia are mentioned among others as suitable materials for plane construction. ...only the best portion of the timber is used in constructing a plane. The shape, grain and knots are considered in selecting the wood." (Tok. Jap. 2/20/45)

...The manufacture of wooden planes has greatly improved, and so even if aluminum cannot be brought, (bauxite) can take its place. Preparations are under way to build planes from this material. (Bauxite) will be compressed layer after layer, like a plate, and pasted together. This paste is obtained from (kazen) cows' milk. That is why, today, milk is a fighting warrior and is not being sold to the public. Only those who need milk most are given it today. (Tok. Jap. 2/27/45)

A new fighter plane, baptized with the name "Hayase," has just brought new strength to our air force. This new fighter plane has a four-bladed propeller and develops a terrific speed that exceeds anything the enemy has. (Tok. Span. 4/10/45)

LABOR

Flying Corps and Other Production Service Units

With the cooperation of the central headquarters of the Dai-Nippon Industrial Patriotic League, the Munitions Ministry has recently selected a number of healthy and capable skilled workers from among the finishers, lathe operators, turret lathe operators, grinders, and boring machine operators of the nation's principal industrial machinery factories and organized a "Flying Corps." This corps will be dispatched to the major aircraft factories as reinforcements on the aircraft production front. The Ministry has decided to send the first unit out to the (censored) factory of the (censored) Aircraft Company. At 10:00 a.m. on January 5, the organization ceremony will be held at the Ministry in the presence of Minister Yoshida, Director Endo of the Aircraft Ordnance General Bureau, President Suzuki of the Industrial Patriotic League and other authorities concerned. (Tok. Jap. 1/4/45)

An approximate 30% increase in plane production was registered in all plants throughout Japan by a certain aircraft production company, as the result of hard work contributed by the Volunteer Service Corps which was organized early last month to step up aircraft production. In view of the success of the first Voluntary Service Corps, a second group will be organized shortly and will be dispatched to large factories throughout the country for a similar purpose. (Tok. Eng. 2/4/45)

...A portion of our army service units (rikugun seibi butai) had previously entered aircraft plants, mingled with general factory workers and students, and had been exerting great efforts in the increased production of "wings." These courageous warriors, who are

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continually giving their services under strict military discipline and (strict) orders, have been in the plant merely one month, but they are attaining fine results, better than anticipated. Furthermore, the soldiers' spirit and...are becoming models for the factory workers and students, and the factory atmosphere has suddenly become militarized. Production efficiency is being greatly increased. Captain Yamaguchi, director of these production service units,... These service units are selected from technicians, and they endeavor to become models for the factory workers and students...

(Tok. Jap. 2/15/45)

Fukui: The advanced class students of the Seikin National School in Sabae-cho, Fukui-ken, are exerting their efforts to increase production of planes in a certain plant in the city. Impressed by the spirit of the Special Attack Corps, they wished to make it their spirit and have renewed their efforts for production, wearing badges to designate different groups such as the Asahi, Yamato, Wakazakura and Uken.

(Tok. Jap. 1/9/45)

Special Attack Corps

ASAHI SHIMBUN, this morning, carried a report on the "Special Attack Corps," organized by picked young workers of the Nakajima aircraft plants in the Kanto District. This "Special Attack Corps" of aircraft workers organized for the specific purpose of engaging in overtime war work to make up time lost in anti-air raid precautionary measures met by the enemy air raids. According to the paper, these "Shock Troops" on our industrial front, who belong to this "Special Attack Corps," make it a rule to voluntarily undertake overtime work at their plants until every minute of working time lost to enemy nuisance raids is regained. If they are obliged to stop work for 10 minutes in an anti-air raid shelter, because of an enemy raid, they remain at their jobs for 10 minutes more after their shift is over. ...each enemy nuisance raid has had the singular effect of expanding the membership of the "Special Attack Corps." A few days after this "Special Attack Corps" was organized at one of the Nakajima aircraft plants, an enemy air raid occurred, compelling the workers to stop work for some time. The members of the "Special Attack Corps" immediately went to work to carry out their pledge to nullify the effect of the enemy nuisance raid on airplane production. The result was most impressive, the paper reported, with a check-up made at the plant the following day showing a 20% increase in plane production over a normal day's output.

(Tok. Eng. 12/25/44)

Construction Corps of War Victims

The Aviation Ordnance Bureau (Kookuu Heiki Kyoku--Ed.) of the Munitions Ministry has called upon war victims for the organization of construction corps (shisetsu tai--Ed.), which will be employed for reconstruction work in factories in the various jurisdictional areas. Many have responded and already a considerable number of these corps are active in various areas in the capital city. Incidentally, the Aviation Ordnance Bureau decided that such construction corps will be created also under the munitions superintendencies throughout the nation. The bureau will strive toward the fulfillment of its objectives by mobilizing these corps for activities aimed at an increase of fighting strength.

(Tok. Jap. 6/5/45)

A I R C R A F T I N D U S T R Y

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Imperial Rule Assistance Youth Corps

The Youth Organization of the Imperial Rule Assistance Association will concentrate its main effort to the production of aircraft and the cultivation of crops. A movement already has been started to produce 50,000,000 koku of wheat and other cereals and 3,000,000,000 kan of sweet potatoes to meet the food shortage problem. At the same time, the organization will work to increase the production of fuel for aircraft. Other plans include sending members to factories to turn out more planes. (Tok. Jap. 12/28/44)

Fourth Labor Service Corps Artists' Auxiliary Group Plant

In the City of Osaka, about 70 artists have decided to change from brush to hammer and participate wholeheartedly in the production front. The members are the Artists' Auxiliary Group of the Osaka Fourth Labor Service Volunteer Corps with Shoson Yano as adviser and Sosei Yamachuchi as head of the group. They have rented a 60 tsubo plant, naming it the Osaka Fourth Labor Service Corps Artists' Auxiliary Group Plant, and have begun the manufacture of airplane parts. They held a formation ceremony at the city Servicemen's Hall yesterday at 10:00 a.m.

(Tok. Jap. 3/16/45)

Nurses' Patriotic Service Unit

Osaka Metropolitan Prefecture: In order to assist the crushing of enemy America, starting on Imperial Rescript Day, December 8, nurses from the hospital attached to the Osaka Imperial University and other metropolitan hospitals have participated in the production of airplane parts and other munitions for decisive battles during their spare time by establishing a Women's...Patriotic Service Unit.

(Tok. Jap. 12/17/44)

Imabari City Women's Volunteer Corps

Matsuyama: At Imabari City in Ehime Prefecture, as a prelude to the all-out labor mobilization for increased production of aircraft, it has been decided to organize an Imabari City Women's Volunteer Corps for Increased Aircraft Production.

(Tok. Jap. 2/1/45)

Women's Equipment Repair Volunteer Corps

Fukuoka Prefecture: The Women's (Equipment) Repair Volunteer Corps of Fukuoka Prefecture was recently (organized) and, after receiving preliminary training for one month, the corps will go out to the various factories in Fukuoka Prefecture from next month. Since aircraft is playing a very important part in the present war situation, in order to plan for stabilizing of...Fukuoka Prefecture last year organized...Repair Corps...40 members. They were sent on tours of the various factories, devoted to repair of... Since such a delicate and detailed work is most suited for women, the Women's...Repair Corps was organized.

(Tok. Jap. 2/27/45)

Ashikaga Machinist Shop: Training for Women in Aircraft

Ashikaga: The office of the director of the Ashikaga Machinist Shop, which trains workers in aircraft production, has for the first time decided to train girl workers, and a special daytime factory has been established. It will not be long before "wings of destruction," built entirely by women, will be flying.

(Tok. Jap. 5/14/45)

A I R C R A F T I N D U S T R Y

LABOR

Neighborhood Plants

A Neighborhood Association factory, to aid in the production of planes, has been established through the efforts of the Meidenkai in the Hokusen and Daisan Community Associations in Nakamura-machi in Osaka. Mothers and grandmothers are working from early morning until 5:00 o'clock at night, making airplane parts. The plant was visited by Taro Suda, technician of the Central Aircraft Plant, who made an inspiring address to the workers.

(Tok. Jap. 11/20/44)

Maeshiba: As an unusual precursor, a neighborhood plant has made its debut in the town of Sakai, Saw-gun, in the Gumma Prefecture. A project devised by the town head, Mr. Muraoka, this factory was designed for the purpose of utilizing to the full the labor of those who are unable to go to work in regular plants. The various corps of the Neighborhood Associations from the 1,500 homes are now making airplane parts. The members from the student units who have mastered production technique supervise the work. The students of the Sakai Practical Girls' Training School are laboring earnestly in the home-like atmosphere of the plant. The attendance rate is excellent and the entire town teems with the determination to annihilate the enemy.

(Tok. Jap. 2/19/45)

Blind Soldiers

(From reports on local conditions to the emperor by presidents of regional administrative councils)

Ikeda said: "Near the Home for Blind Soldiers, there is an electrical products factory. The owner, a benevolent person, offered machinery and equipment to the blind soldiers for their use. Now they are producing aircraft parts. They are skillful workers and some of them produce twice as much as the normal worker."

(Tok. Jap. 2/20/45)

A R M S, A M M U N I T I O N, W E A P O N S I N D U S T R I E S

CORPORATIONS AND COMPANIES

Dai Nippon Armament Company (Dai Nippon Heiki)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45.

Hachioji Arms Factory

The (wd) women folks of the Girl Volunteer Corps in the city of Hachioji have decided at this time to establish an arms factory under a corporation. The plan is to manufacture precision instruments by using electrical equipment controlled by electrical waves. The..., directors and the president are all women.

(Tok. Jap. 11/30/44)

Meguro Temple Cartridge Plant

The following is the record of the Yon-chome group in Kamimeguro, Meguro-ward, Tokyo: This group consists of middle class housewives. Its members are engaged in producing cartridges. The 80 members are divided into two sections and work half-day shifts at the Meguro Temple of the Tenrikyo sect. The temple compounds have been made into a workshop. Each person works two hours a day, producing about 700 cartridges. The members are paid 1-1/2 rin (one rin equals 1/10 of one cent--Trans.) and the money earned is deposited. This group has saved more than three times its scheduled goal.

(Tok. Jap. 11/24/44)

Uttamono Blacksmith Shop, Fukui

Fukui: The Uttamono Blacksmith Shop in Takeu-machi, Fukui Prefecture, renowned home of cutlery in (Echizen), has already scored brilliantly in the war effort by manufacturing agricultural tools for victory, but it now starts on the mass production of swords to be used in the bloody battles (on Okinawa). The workers are all well-known native swordsmiths and are burning with enthusiasm to get these swords ready to kill each and every enemy on Okinawa Island.

(Tok. Jap. 5/15/45)

RESEARCH, INVENTION, DISCOVERY

Chiba: The gathering of "umibotaru" (umi, meaning sea, and botaru, meaning firefly--Trans.) as a material for the manufacture of a new weapon has been under way throughout Japan. Excellent results are being achieved, especially around Tateyama Bay in Chiba Prefecture. Toyama, an engineer at the Chiba Marine Products Experimental Station, who has been experimenting with an "umibotaru" trap, has completed a very simple device which is said to excel all known traps. The new trap is expected to aid greatly in the "umibotaru" drive.

(Tok. Jap. 12/29/44)

The second secret weapon described by the ASAHI is the mystery ray now being developed by Dr. Hideki Yukawa, noted authority on electricity. This ray has a power of destruction several hundred times that of the present atomic explosive. The penetration of this ray could blow up the entire city of Washington in an instant. The high performance radio receiving set, invented by Professor Aaburu (Okdada) was the third item of this imposing list. This receiver is able to detect accurately the actions of B-29's at Saipan, 2,300 kilometers away from Tokyo, as well as the movements of submarines operating far from the coast. Since this receiving set is capable of distinguishing the...static rays of enemy planes, the Japanese forces can take appropriate measures, according to (intelligence) received at an early state in the operations. For instance, it is suggested that special chemicals can be spread in the air to guard against B-29's

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which are handicapped by poor maneuverability. These chemicals form a compound with gasoline and turn it into a sticky substance which (scorches) and renders useless the engines of the enemy planes. The ASAHI announced that these new weapons will be effectively employed in future operations. (Batavia Eng. 1/17/45)

(Let us now tell you about a new weapon called) "the anti-tank gun." This new weapon measures about one meter, and can be (manipulated very easily). The weapon is so light that even old men or small children could handle it. It follows the same principle as that used for rocket (guns) and the missile bursts forth in the direction of a tank. The missile will pierce through the steel armor of the tank and explode inside the tank, when fired from a distance of over 100 meters. Even a large tank can be knocked out very easily. Right now, 1,000,000 of these weapons are being manufactured (in Japan) each month. Those brave young sons of Germany are also...thus delivering painful blows to... (Tok. Jap. 3/29/45)

Army Air Weapon Research Institute

Next will be a story of drum cans made of bamboo and paper. Drum cans are large, round cans containing aircraft fuel such as gasoline... Paper and bamboo are abundant in Japan. The method of making these drum cans is extremely easy. The special character of these cans is that you children can make them easily. Moreover, there is no considerable difference between these drum cans made of bamboo and paper and the usual drum cans made of iron, in size and shape. In the future, if these drum cans are made in large number, a saving of a large amount of iron, necessary for war, will be made. These drum cans were made by Captain Takeo Oki of the Army Air Weapon Research Institute. Captain Oki was granted a certificate of merit today by War Minister Anami. (Tok. Jap. 5/16/45)

COLLECTION AND PRODUCTION PROGRAMS

Fukushima: The cry from the front lines has been: "If you are going to send us weapons, send us those which are filled with your spirit." In answer to this supreme command, the Fukushima plant of the (censored) company instituted a volunteer production special attack period, beginning February 1. The entire management, as well as the officers, took the lead to set examples for the other workers. Some domiciled themselves in the dormitory during the period, while other workers who commute from distant areas put in more than two hours overtime daily. As a result of this concerted cooperation, the attendance was maintained at the record level of 95%. The first lot of weapons produced under the new system was out on March 1, and the high rate of production is being maintained. (Tok. Jap. 3/9/45)

The labor division of the Metropolitan Police Board, which has taken over the task of restoring damaged factories and of directing the activities of production workers, was honored by a visit of His Imperial Majesty during his tour of inspection of the damaged area. On the following day, March 19, the Metropolitan Police Board issued special orders to the labor office agencies, workers' consultation offices, and labor mobilization offices of the various police stations to pitch into the work of training responsible personnel for factories and of obtaining workers. Thus, a campaign is being launched to increase the production of weapons for the purpose of increasing fighting power. (Tok. Jap. 3/20/45)

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COLLECTION AND PRODUCTION PROGRAMS

Horyuji Temple Swords

Nara: The old Horyuji Temple has decided to donate more than 6,000 prized swords to the army. The swords recently were appraised and classified by experts, after which Asano, clerk at the temple, visited Tokyo and got the permission of the Education Ministry to release these prized weapons, which have long been in the temple's possession.
(Tok. Jap. 2/20/45)

Mugi District Sword Tempering

Gifu Prefecture: Persons engaged in (tempering swords) of Mugi District of Gifu Prefecture, widely known as a center for tempering excellent swords, are continuing their (excellent) services to the nation, patriotism in the form of military swords...
(Tok. Jap. 3/3/45)

Patriotic Society for Restoring and Tempering Bizen Swords

In the village of Miyuki, Oku-gun, in Okayama Prefecture,...the Historic Relic Preservation Society was recently changed to the Patriotic Society for the Restoring and Tempering of Bizen Swords. ...A new sword smithy, costing several tens of thousands yen, has already been completed, and Shuuko Imaizumi has been named the first swordsmith. Many returning wounded soldiers will take up apprenticeship here.
(Tok. Jap. 2/4/45)

Scientific Mobilization Association

Lieutenant General Reikichi Tada, president of the Scientific Mobilization Association, spoke on the production of scientific weapons as follows: "In warfare, there are two types: fighting in the distance, and fighting at close range. The enemy's invasion of our homeland with B-29's is an example of fighting in the distance. To us, fighting at our doorsteps is best. The so-called fighting with bamboo spears, I believe, refers to bamboo spear tactics used in fighting at close range. It does not necessarily mean attacking the enemy with bamboo spears. It is most necessary to produce bamboo spear-type scientific weapons. By that is meant the production of anti-tank guns, hand grenades, rockets, special attack planes, and many other weapons upon which scientists should concentrate their skill. Bamboo spear-type scientific weapons are those which can be manufactured simply in decentralized underground factories. Weapons made by the 100,000,000 people, and which can be manned by the 100,000,000 people, are the weapons for the 100,000,000 people. Material for the weapons, too, must be such as can be supplied at home. Weapons of this type are suitable for the people and also for our geographic conditions."
(Tok. Jap. 4/10/45)

Shikoku Regional Administrative Council's Drive for War Weapons

Matsuyama: The Shikoku Regional Administrative Council will begin a drive for war weapons. In the first drive for funds to produce these weapons, quotas have been established for various prefectures. Kagawa Prefecture is expected to contribute 300,000 yen; Tokushima, 290,000 yen; Kochi, 310,000 yen; and Ehime, 480,000 yen. It amounts to a donation of two yen from each home. Materials and labor will be supplied by local regions, with the help of government offices. The war goods will be produced in the four prefectures.
(Tok. Jap. 4/9/45)

A R M S, A M M U N I T I O N, W E A P O N S I N D U S T R I E S

COLLECTION AND PRODUCTION PROGRAMS

Shimane Prefectural Japanese Sword Service Association

Shimane Prefecture: The associations and corporations in Shimane Prefecture which manufacture sabres have at this time formed the Shimane Prefectural Japanese Sword Service Association by combining four corporations, in an attempt to promote still greater increased production of sabres in conformity to the war situation which is gradually becoming ever more critical. The four companies are the Shimane Sabre...Association, the Shimane Sabre Corporation, the Yatsuushi (Sieko) Sha, and the Izumo Sword Temperer.

(Tok. Jap. 3/5/45)

LABOR

Torahime Patriotic Service Company (Torahime Hookoku Kaisha)

From the YOMIURI-HOCHI SHIMBUN: The Torahime Patriotic Service Company, the first to be authorized by the Military Relief Board and serving the double purpose of aiding the wounded and invalid soldiers as well as the families of our fighting men, and of boosting war production, has been established in the town of Makuhari, Chiba-gun, in Chiba Prefecture. Active operations will be launched shortly. ...This enterprise will be given support by the prefecture as a military aid enterprise. All matters relating to the work, hours of work, and welfare facilities, will be supervised by the Military Relief Board and the prefecture. ...Seven other wounded and invalid veterans have been receiving instructions at the main plant of this company for two months under the supervision of Technician Yoshikawa. Awaiting their return, the production of weapon parts will probably begin about February 10. ...The men will devote themselves chiefly to the manufacture of wooden parts, while the women will engage chiefly in the manufacture of straw products. A part of this work has already been started. They will be given other aid from the Relief Board, in addition to their wages. ...A model working system has been adopted for the plant. A corps system will be instituted, with a corps leader for each group. Wood craftsmen, other than the veterans, will become the sub-leaders of the groups and supervise the work. These groups will work under the military system.

(Tok. Jap. 2/8/45)

C H E M I C A L I N D U S T R Y

CORPORATIONS AND COMPANIES

Dai Nippon Paint Company (Dai Nippon Toryo)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45.

East Asia Marine Chemical Products Company

See GASOLINE, Research, 1/10/45.

Hodogaya Chemical Industrial Company

See CHEMICAL, Labor, Students, 1/12/45.

Mitsubishi Chemical Industry

See LIGHT METALS, Collection and Production Programs, 5/22/45.

Mitsui Chemical Industries Company (Mitsui Kagaku Kogyo)

The Military Tannin...had been studying the situation of tannin resource at home and abroad as one of its immediate problems. It has decided at this time to make use of synthetic tannin, thereby solving this phase of the leathergoods manufacturing. Synthetic tannin is a compound employing formalin and liquid by-product (liquid discarded in the processing...Trans.) of "super-X." A trial manufacture is now under way by four leading companies, the Mitsui Chemical Industries, the Nitta Chemical Industries, the Tannin Chemical Industries, and the Toho Chemical Industries. In the future, the four companies are to cooperate closely in the manufacture of this synthetic product to alleviate the shortage of natural tannin.

(Tok. Jap. 11/10/44)

Nakamura Chemical Industry Plant in Kusiro

See CHEMICAL, Research, 2/14/45.

Nippon Camphor Manufacturing Company

Plans to use camphor trees, which are found abundantly in various parks in Tokyo, for war purpose were adopted by the Monopoly Bureau of the Finance Ministry and the Nippon Camphor Manufacturing Company of Tokyo. Through the cooperation of the two groups, a Camphor Exhibition will be opened in Hibiya Park to educate the public on the importance of camphor in copper refining and in making explosives. It is estimated that there are a considerable number of camphor trees in Tokyo Metropolis, including 300 at Hibiya Park and 150 at the Shiba Park.

(Tok. Jap. 11/8/44)

Nippon Carbon Company

See MISCELLANEOUS, Financing, Capitalization, 2/6/45.

Nitta Chemical Industries Company (Nitta Kagaku Kogyo)

See CHEMICAL, Corporations, Mitsui Chemical Industries Company, 11/10/44.

Tannin Chemical Industries Company (Sangyo Gosei...Shigawazai)

See CHEMICAL, Corporations, Mitsui Chemical Industries Company, 11/10/44.

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Toho Chemical Industries Company (Toho Kagaku Kogyo)

See CHEMICAL, Corporations, Mitsui Chemical Industries Company, 11/10/44.

CONTROL ASSOCIATIONS

Chemical Industrial Control Association

The government, at this present Diet session, declared its opinion on the management and reorganization of the control associations. Based upon this policy, the Munitions Ministry at this time decided to combine the Oils and Fats Control Association with the Industrial Chemistry Control Association in view of...of the industrial chemistry administration. Today, the Oils and Fats Control Association was ordered to dissolve. Also, the present members of the Oils and Fats Control Association will be (made) members of the Industrial Chemistry Control Association. The Oils and Fats Control Association was chiefly in charge of the (household) field and, generally speaking, is a part of industrial chemistry. Therefore, this is the reason for the present combining. From April 1, a new (beginning) will be made. (Tok. Jap. 3/8/45)

See GENERAL, Decentralized and Underground Factories, 4/1/45.

PROMOTING ASSOCIATIONS

Council for Deliberating on Emergency Soda Production

...The Munitions Ministry will launch an emergency production drive during the fourth quarter of the fiscal year (January, February and March--Trans.), with the goals set at double the present rate for caustic soda and for a 50% increase in the soda ash production. In order to achieve this goal, a Council for Deliberating on Emergency Soda Production measures, comprising all the soda manufacturing plants in the country, was established. The first meeting of this group was held on December 27 in the office of the director of the Chemicals Bureau of the Munitions Ministry. There is already a Soda Production Committee within the Chemicals Control Association, which is working toward ensuring soda production, but this new organization will not only cooperate with the Soda Production Committee, but will also make direct contact with the actual producers on the spot and effect positive production measures, as well as obtain spiritual cooperation within the industry. The new council will line up the factories with the production goal set by the authorities, and establish detailed production plans for each, thus working toward the realization of the goal. Moreover, the formation of this production council manifests the importance of the present day soda industry. In contrast to the chemical administration in the past, which worked on the promotion of the chemical industry as a whole, this transfer of emphasis to the basic chemical industries, such as soda, merits close attention. (Tok. Jap. 12/28/44)

GOVERNMENT ADMINISTRATION

General Planning Board, Inspection of Ammonia Production

The government, at the Cabinet meeting of April 30, formulated plans to insure the supply of fertilizer and...industrial ammonia products and decided on conducting an administration inspection of ammonia production. Centered on the General Planning Board, deliberations were carried out since then with the various quarters concerned and, now that members of the administration inspection mission were selected

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GOVERNMENT ADMINISTRATION

General Planning Board, Inspection of Ammonia Production

today,...the government has decided to start administration inspection. A program for the enforcement of administration inspection was presented before the Vice Ministers' meeting today and was (explained) by Chief Akinaga of the General Planning Bureau, after which the program was approved. ...Inspection will be started on May 7.
(Tok. Jap. 5/3/45)

Emergency Chemical Apparatus Headquarters, Munitions Ministry

At a Vice-Ministers' conference on December 14, expedient measures to secure, as quickly as possible, chemical apparatus for such use as light metals and fuel were decided upon. With the positive cooperation of the army and the navy, a special effort is to be made toward immediate improvement of power and efficiency of these chemical apparatuses. The Munitions Ministry has established, as its central organ, an Emergency Chemical Apparatus Headquarters. This organization will be headed by Munitions Vice-Minister Takeuchi, and it is to deal with such problems as the control of allocation, the strengthening of the production administration, and the securing of machinery production efficiency.
(Tok. Jap. 12/23/44)

War Production Firms

Dai Nippon Chemical Industry Company

See GASOLINE, Government Administration, War Production Firms, 5/1/45.

RESEARCH, INVENTION, DISCOVERY

Buyoo Salt Industry Association of Tokuyama

Tokuyama: Strontium, which is indispensable for the manufacture of electronic weapons, heretofore has been taken from the ground, but Toshi Kondo, an engineer with the Buyoo Salt Industry Association of Tokuyama, has found a way to extract the mineral from salt. By a special process, Kondo has been able to extract the mineral from residue resulting during the process of manufacturing table salt. The process is relatively simple. Competent authorities, seeing the possibilities of Kondo's process, are expected to mobilize all the salt industry associations throughout the country to employ the new process and thus help to boost Japan's war strength.
(Tok. Jap. 3/7/45)

Engineering College, Waseda University

Aided by long experience as a painter, the noted artist, Masanobu Furubuchi, has succeeded in creating from oil compounds a new kind of fireproof paint. Generally manufactured from silicic acid compounds, fireproof paints heretofore manufactured, although having high resistance against fire, were waterproof only to a certain degree. As the newly invented paint is concocted from oil, it is highly waterproof as well as fireproof. According to tests made by Professor Seisaki Kato of the Engineering College of Waseda University, the new paint will withstand fire (of)...degree from 13 to 15 seconds. It is revealed that the ingredients of the new paint are fish oil, red pepper, and a special type of clay. It is reported that preparations are progressing now to manufacture the new paint on an industrial scale.
(Tok. Eng. 12/19/44)

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RESEARCH, INVENTION, DISCOVERY

Fertilizer Inspection Section, Yamagata

Yamagata Prefecture: A rich phosphate deposit was discovered in Yamagata Prefecture. Aided by a survey made 40 years ago along the Mogami River, the Fertilizer Inspection Section of the prefecture discovered a deposit containing 20% phosphate in the flat grounds in Sakekawa-mura, Mogami-gun. (Tok. Jap. 11/17/44)

Kumamoto College

...A new type of noctilucous (sic) paint has been discovered by Kumamoto College's Instructor Shimomura. This is produced by burning and (pulverizing) the shells of the (Tapes Philippinarum) and the clam. In addition to this, (sulphuric...) is added and then burned with a heat of approximately 1000 degrees. This will, needless to say, ...dug-outs, and will render a strong...in the luminosity of former noctilucous paints. (Tok. Jap. 5/13/45)

Kyoto Imperial University

...A novel device which will contribute greatly to the war has been made by a Japanese scientist. After years of continuous study, Professor Ryusaburo Nozu of the (Kyoto) Imperial University has finally succeeded in inventing a process for deriving a novel wood sticking plaster from acetone, by-product of butanone... The results of the experiment proved to be of excellent quality, incomparable to those heretofore in use. (Tok. Eng. 4/20/45)

Nakamura Chemical Industry Plant

Kusiro: In Hokkaido, the extraction of gluing agent will be industrialized with the coming of the herring fishing season this spring. Dr. Michio Takaoka of the Hokkaido Imperial University perceived the idea of utilizing the herring milt, while experimenting at the Nakamura Chemical Industry Plant in Kusiro. He found that, by taking out the moisture from the milt, 11% in fatty substance and 80% in protein can be obtained and, further, that the protein substance was both fresh water and sea water resistant, being highly cohesive. Plywoods made by using the gluing agent from the herring milt do not lose their firmness, even though they are soaked in sea water or in fresh water. Moreover, its resistance to sea water increases when mixed in special paints, and wooden boxes painted with this material will ward off the penetration of water for a long period of time. It is indeed a very important material during wartime to preserve things, and the industrialization of extracting gluing agent from milt is regarded as promising. (Tok. Jap. 2/14/45)

Physico-Chemical Research Institute (Rikagaku Kenkyusho)

See MISCELLANEOUS, Research, Progress and Awards, 12/5/44.

Tokyo Industrial Promotion Office

The drive for the reclamation of platinum, which has been in progress since the first of September, has produced results far beyond expectation, reflecting the true patriotic spirit of the people. The chemistry department of the Tokyo Metropolis' Industrial Promotion Office (Tokyo Toritu Koogyoo Shooreikan Kagakubu) has succeeded in working out a purely Japanese method in the processing of the reclaimed metal and is achieving excellent results. First, a mixed solution of concentrated nitric acid and concentrated hydrochloric acid is added to the reclaimed platinum and the mixture is boiled

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Tokyo Industrial Promotion Office

for approximately 24 hours and liquefied. In the second step, sulphurous acid is added to the solution and the impurities separated. The filtrate is then oxidized with a chloride. The impurities are again precipitated by neutralization. Ammonium chloride solution is finally added to the solution of pure platinum and the platinum is filtered out.
(Tok. Jap. 11/9/44)

PRODUCTION PROGRAMS

Nitric and Sulphuric Acids

In pursuance of its decision to carry out a survey of plants handling ammonia products, the government on May 7 announced the selection of a 28-man committee for the task. The committee will be assisted by 18 assistants, and will be comprised of a number of prominent people. The committee met at 9:00 a.m. at the premier's official residence to discuss measures to guarantee the supply and production of nitric and sulphuric acids. The meeting lasted until 3:30 p.m. Beginning May 8, a survey will be made of the Nagoya, Toyama, Kyushu and Shikoku areas.
(Tok. Jap. 5/8/45)

Orange Oil

Because of its desirable viscosity, the Bureau of Munitions Chemistry (Gunju Kagaku Kyoku) has decided to utilize the orange oil, which is extracted as a by-product in the manufacture of hydrochloric acid from Chinese citrons, as an important fuel for aircraft. Recently, notices regarding the manufacture of the orange oil were distributed by the bureau to factories in the principal citric acid producing districts of Shizuoka, Wakayama, Mie, Hiroshima, Yamaguchi and Ehime Prefectures. The orange oil in the rind of the citrons has heretofore been used only for soft drinks and cosmetics. Lately, there has been an increase in the output of the oil, owing to the increased production of citric acid, but there has been very little active demand for the absorption of this oil, and producers had been perplexed as to how to dispose of the oil. However, with the development and the use of new ingredients in aircraft fuel production, this problem will be gradually alleviated, thus killing two birds with one stone.
(5/14/45)

Tartaric Acid

By virtue of the positive efforts on the part of affiliated circles as well as by the people, emergency production increases of tartaric acid, indispensable for the manufacture of electrical wave weapons and..., have been under way throughout the entire country since last summer. Particularly lively activities have been demonstrated by such producing areas as the Yamanashi Prefecture, Okayama Prefecture and the metropolitan prefecture of Osaka, as well as by other centers, of the grapes which are the raw material for tartaric acid, in consequence of which the production quota for the fiscal year of 1944 was just recently surpassed.
(Tok. Jap. 1/6/45)

LABOR

Phosphate Production Special Attack Corps

Wakayama Prefecture: The prefectural office has decided to select 1,000 workers for the "Phosphate Production Special Attack Corps," which is to be created to boost production in the phosphate mines in Kishu (Wakayama) mountains. The workers will be presented Rising Sun

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LABOR

Phosphate Production Special Attack Corps

head bands with inscriptions written by Governor Kobayashi.
(Tok. Jap. 3/21/45)

Students

The following paragraphs describe a plant built and managed by students alone. The student workers took over the entire responsibility of running the (censored) plant of the Hodogaya Chemical Industrial Company from the very outset of its establishment. Recently, they instituted a three-shift system to keep the plant operating day and night, and results chalked up far surpass those of other factories in general. This enormous factory building with its many wings, on a 15,000 tsubo area, was built through the efforts of (number censored) students, and brilliant results are being achieved here. This body of fighting students is made up of fifth-year students from the First Middle School of the Nippon University, third-year students from the Edogawa Middle School, and the seventh and eighth grade students, both boys and girls, of the Komatsugawa National Elementary School. Beginning with the production of synthetic resin, last September, the boys and girls extended their operations to include the refining of (carbolic acid) during the latter part of December. Six fifth-year students have been named squad leaders of the third-year group and 15 third-year students head the elementary school units.

(Tok. Jap. 1/12/45)

The Chemical Industry Control Association recently organized an Emergency Mechanics Corps from among student volunteer workers. The youthful corps will be immediately dispatched to any chemical industry plant short of hands or in need of repair work.

(Tok. Eng. 2/8/45)

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CORPORATIONS AND COMPANIES

Hokkaido Colliery & Steamship Company (Hokkaido Tanko Kisen
Kabushiki Kaisha)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45.

Japan Coal Company (Nippon Sekitan Kaisha)

In view of the difficulties in obtaining maximum service in transportation and communications because of the increasing enemy air raids, the Nippon Sekitan Kaisha (Japan Coal Company) is planning to simplify its present centralized administrative setup by transferring the detailed work of issuing instructions and orders to the regional branch managers. The company plans to give more authority to branch chiefs to work in emergencies and to simplify the work of the home office. ...However, in order to carry out this plan, there is the necessity of transferring the authority of issuing urgent instructions and making policies, which is now held by the Fuel Bureau of the Munitions Ministry, to the Nippon Sekitan. The matter is now under consideration. The authorities are expected to have their regional offices confer with the respective branches of the Nippon Sekitan and take emergency measures, whenever necessary, in view of the current difficulty in executing locally the centrally formulated plans. With regard to this contemplated change, the main office of the Nippon Sekitan Kaisha plans to reshuffle its administrative personnel. (Tok. Jap. 3/27/45)

Yokichi Kawakatsu, director and chief of the Business Affairs Bureau of the Japan Coal Company, was promoted to fill the vacancy created by President Shiro Watanabe's death.

(Tok. Jap. 4/11/45)

Nippon Coke Company

Amendment to the Coal Distribution Control Law: Certain revisions of the regulations covering coke are already being followed by the Nippon Coke Company, but other coke provisions authorized at this time by the Munitions Minister will also be regulated under the same rule as for coal. (Tok. Jap. 12/23/44)

RESEARCH, INVENTION, DISCOVERY

Yoshio Mine

Kobe: Some time ago, a deposit of peat was discovered at the Yoshio Mine at Takedao in Hyogo Prefecture. On October 28, tests were made on the heating quality of the coal and it was found that the results were unexpectedly good. The prefectural authorities decided to dig 1,000 tons of this peat. On November 3, on the occasion of the Meiji Festival, Prefectural Governor Narita distributed the coal to all the bathhouses of Kobe City and permitted the bathhouses, for the first time in a long while, to indulge in the luxury of opening their businesses in the morning. (Tok. Jap. 11/3/44)

Iwate Clay

(Monitored summary) There are many kinds of clay, but Iwate clay is among the first in fighting material. There is a small hill in Iwate Prefecture which was formerly a coal mine site. There are many layers of clay in the hill... There is great difficulty in taking out this clay from inside the mountain. There have been outbreaks of fires in handling of the clay. About seven years ago, one man realized that this was very similar to a red type clay which was suitable

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Iwate Clay

for fuel and, after investigation, it was found that it fell in the category of number 35, which can generate 1,775 degrees of heat. As a result, the firm which owned the mine abandoned coal mining and turned its efforts entirely to digging out the clay.

(Tok. Jap. 2/22/45)

PRODUCTION PROGRAMS

Coal and Coke

In order to cope with the recent fuel situation, the government has decided to plan for increased production of lignite and lignite coke. The matter concerning increased production of these products was approved at today's Vice Ministers' conference and details were announced by the Munitions Ministry today. The government will make new appropriations of the necessary expenses for increased production of lignite coke. The utilization of wood is daily increasing as a decisive war material for aircraft, ships, vehicles, ...hence, the government has decided to plan for...charcoal and its concrete policy was approved at today's Vice Ministers' conference. With the approval of the Home, Munitions, Transportation and Communications, War, Navy, Education and Welfare Ministries, the Board of Information and the Imperial Rule Assistance Association, a powerful increased production drive for lignite and lignite coke will be under way for three months, from January 15, next year, through the end of April. The goal of increased production will be 25,000,000 (kan).

(Tok. Jap. 12/28/44)

During the meeting on February 1 of the Industrial Equipment Corporation Committee of the Lower House, Sanzo Matsuo asked the government for information on the 1944-45 fiscal year's coal output. Munitions Minister Yoshida replied to the following effect: "As a rule, production is not ideal during the first half year, but picks up during the second half year. Coal production has shown an upward trend of late. The present bottleneck has been caused by transportation difficulties due to weather conditions. When the national demand is large, there is the possibility of over-estimating the capacity of mines to produce, so due consideration has been given this matter. By maintaining a goal which can be attained with a little extra effort, the fourth quarter, like the third, should show excellent results. The production of coal during the 1945-46 fiscal year will be carried out in like manner under this policy."

(Tok. Jap. 2/1/45)

A coal policy in Japan has been instituted and enforced, based on the supply of domestic coal produced in the Kyushu, Hokkaido, Joban, and Ube mines, and on the coal from the territories such as Karafuto, Chosen and Taiwan, as well as imported foreign coal from Manchukuo, North China and French Indo-China. In late years, with the changes in the war situation, Japan has been in a position where she has been compelled to anchor her hopes in the increased production of domestic coal and not depend on imported coal. Confronted by this condition of today, the production of coal, one of the basic materials needed in war production, has dropped 12 per cent from the 1939 level. With the decrease in the supply of coal, it has become necessary that coal be distributed to the war production field on a priority basis, in order to obtain increased production of munitions. Thus, through the regulation of the supply of coal, the stabilization of the critical industries was barely obtained. This decrease in the supply of coal was the biggest cause which made boosting of munitions production

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difficult. When we look into the condition of coal production, which has turned for the worse, we notice the trend of abnormal rise in the production cost. The production cost has been soaring since we entered the 1944-45 fiscal year. The greatest causes which have brought about this rise of production cost are mainly the increase in the per ton labor cost on account of the increased wages and the drop in the production capacity. It is also considered that the buying out activities and the black market prices, caused by uneven supply, have directly influenced the production cost to a certain extent. With regard to the marketing of coal, the entire supply of coal from the various mines is being bought solely by the Nippon Coal Company, and the prices for the coal are being paid by the same company in accordance with the company's unitary distribution control system. The subsidy system was started in 1939, and the amount of subsidy paid out has increased year after year, along with the steep rise of the production cost. A stupendous payment, amounting to...hundred million yen, from the national treasury was made in 1944. The subsidy payment from the national treasury has increased 8-1/2 times since the institution of the subsidy system. Even with this colossal subsidy payment, there is still a difficulty in the stabilization of the coal industry. A fundamental re-study of this coal situation is demanded and a revision of the coal policy is urgently needed.

(Tok. Jap. 4/10/45)

Charcoal and Firewood

The Agriculture and Commerce Ministry held a (conference of the chiefs of the second economic sections) of Kanto, Tohoku, Tokai and Hokkaido (areas) at the official residence of the Minister of Agriculture and Commerce this morning at 9:00 o'clock. During the morning, plans to insure a (supply) of firewood and charcoal and...were deliberated upon. In the afternoon, various discussions were conducted regarding...which will become fuel for aircraft. ...A conference of the chiefs of the second economic sections in Tokai, Kinki and Shikoku areas will be held at the City of Osaka on November 10. Another conference for Chugoku and Kyushu areas will be held at the City of Hiroshima on November 13 and... (Tok. Jap. 11/7/44)

The people of Ibara-gun of Miyagi Prefecture, determined to serve with the same spirit possessed by the heroes who died in the southern skies, have voluntarily organized a...Patriotic Service Association. Some 500...have already become members (of this association). The purpose of the association is to have each member make a thousand sacks of charcoal. In order to facilitate this, the provincial office (has lifted the ban from) 360 chobu of the national forests and ...so that necessary raw materials may be had, and every preparation is now being made in this line. In Kurihara-gun, Jyugoro Saito of Kamikoma Village (made) 1200 sacks all by himself, while there were four others who surpassed the 1,000-sacks-per-person mark during the past summer.

(Tok. Jap. 12/1/44)

The Education Ministry, having decided on a transportation system by the relay method, to be carried out by students mobilized from the higher departments of national schools in firewood and charcoal raising districts, issued a notification to this effect to all local governors today. According to this program, all urban prefectures are to make general plans beforehand and, by designating transportation roads from the foot of the mountains to the railway stations, student firewood and charcoal transportation units will be organized for these respective transportation roads. By establishing such a system,

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Charcoal and Firewood

firewood and charcoal will be transported from one village to another. When transporting firewood and charcoal by the relay method, carts,... used for this purpose are to be supplied by the local administrative offices. The proper government officials will decide on further concrete plans for the enforcement of firewood and charcoal transportation at deliberative council meetings, to be attended by local governors, school principals, chiefs of the IRAA business office, mayors, police chiefs and members of the associations concerned.

(Tok. Jap. 12/15/44)

Kunio Nakabayashi, an eighth grader at (Tamashima) National School, Sakai County, Fukui Prefecture, devised a unique method of producing (charcoal), and has already made 16 bags of (charcoal) since October, this year. The method of making the pot to produce the (charcoal) is simple but sturdy. It is made of six feet of...dug down for three feet, and put on the center of the pot...and in 15 days four bags of (charcoal) can be made. The good children of...are all following the method.

(Tok. Jap. 12/28/44)

Every village in the Soma County charcoal producing district in Fukushima Prefecture is doing its utmost, just as though it were on the desperate battle front. Sixty 2nd grade students of the commercial school in (Karauma) Village, Soma County, walked 28 kilometers into the mountains near (Inka) Village, despite cold weather, to transport charcoal. Also, sixty 1st grade students transported 4,000 bags of charcoal during the five days from December 22 through 26 as their contribution to labor service for increased charcoal production at (Katakura) in (Ichigan) Village.

(Tok. Jap. 1/3/45)

Hakone: Permission has been granted to cut maple trees on the Kaseki plains at Hakone. The maples will be used for wood and charcoal. The children evacuees and the young people of 13 villages in the Hakone area will do most of the work.

(Tok. Jap. 1/15/45)

An organization composed of women...in Miyazaki Prefecture was the recipient of...commendation last year for its efforts towards production increases of charcoal. (Tok. Jap. 1/15/45)

Desiring not to be outdone by the soldiers at the front, the soldiers of the Japanese homeland have (organized) a Special Attack Corps and have been performing outstanding work everywhere. To select one case, a certain unit in the western part of Japan purchased 50 chobu of forest in the vicinity of Miyamoto Village, Kanagawa Prefecture, and constructed four charcoal furnaces in order to maintain self-sufficiency. Furthermore, the brave heroes of the fighting front have already obtained a fighting result of 1,000 bags of charcoal and 10,000 bags of firewood (through)... The people of the village, too, who were deeply impressed by these soldiers' stalwart deeds, are valiantly continuing their effort in charcoal making, without being outdone by the soldiers. (Tok. Jap. 3/17/45)

At the request made by President Yoshino at the Tokai and Hokuriku Administrative Deliberative Council meeting, Gifu Prefecture has decided to carry out the transportation, with priority, of firewood and charcoal to the air raid victims in the City of Nagoya... As inspectors responsible for the shipping out of firewood and charcoal, each of the heads of the wood products inspection...will be sent to the principal railway stations for shipping out firewood and charcoal.

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Charcoal and Firewood

These inspectors will see to it that the firewood and charcoal accumulated at collection points in towns and villages are transported to stations. The firewood and charcoal will be inspected by them before being shipped. It has been decided that, during the month of March, 15 carloads of firewood and charcoal will be sent to the City of Nagoya daily. It has been arranged that the amount will be 5,000 bags of charcoal and 12,000 bundles of firewood.

(Tok. Jap. 3/18/45)

The pupils of (Muro) National School in Muroto-Misaki Town in Aki-gun of Koochi Prefecture are now busily engaged in making bales for charcoal, hoping to respond to the gallant fighting being put up by the soldiers at the front... With the receipt of a request (last year) from the (prefectural) agriculture and forestry... that the pupils offer their help in making 50,000 of these bales during the current year, each boy and each girl of the fifth grade and up has been assigned to make ten pieces each per..., by taking advantage of the...time. A token of thanks in monetary return, amounting to more than 1,000 yen per month, is being received. Each "cent" is being put away in savings. Thus, in this manner, the pupils are achieving brilliant results in the war through savings.

(Tok. Jap. 4/12/45)

DISTRIBUTION

As counter-measures against the immediate dearth of water for hydroelectric power, authorities of the Munitions Ministry have been taking elastic measures, such as regulating the power supply and coal distribution, in order to prevent restrictions on the use of electricity. March 2 was set as a deadline to enforce restrictions, so they have been pushing the distribution of coal with the closest cooperation of the Total Mobilization Bureau, the Electric Power Bureau, the Fuel Bureau, the Nippon Electric Power Company, the Nippon Tanko (Colliery), and related governmental authorities and civilians. On their part, the authorities will act without delay on the following: (1) appropriate coal in the Tokai area and send it to the Kansai area; (2) shift the general coal bound for Nagoya to the Nippon Electric Power Co.; (3) the Kansai branch of the Nippon Electric Power Company to use its own Miyike Mine coal for thermal electric power within the confines of its jurisdiction, its coal to be appropriated for general use; (4) by enforcing special distribution methods, plan to secure transportation. It is expected that, by carrying out the above coal distribution smoothly, restricted use of electricity may be circumvented.

(Tok. Jap. 3/2/45)

LABOR

At today's meeting of the Lower House of the Diet, Minister of Munitions Yoshida, answering the query, "what do you have to say with reference to receiving help from the army in connection with increased production of coal," put to him by Sotaro Yoshida, replied: "The idea of receiving help from the army in connection with increased production of coal will boost the morale of the workers themselves, and I am in hearty accord with such move and am contemplating an appeal of this kind."

(Tok. Jap. 2/2/45)

Buddhist Division, Patriotic Religious Society

The Buddhist Division of the Patriotic Religious Society (Shuukyoo

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LABOR

Buddhist Division, Patriotic Religious Society

Hookokukai Bukkyoo Kyoku), acting in concert with the Munitions and Welfare Ministries, has selected 100 capable young priests from the various sects to offer their services for coal production. On February 14, at the Seibikan gymnasium of the Shibuya branch of the Metropolitan Police Board, these priests entered on a training course which will qualify them as supervisors of mine workers. This course will last for five days, until February 18, and will give instructions in mine conditions and the handling of mine labor. It is being conducted with the attendance of authorities from the Munitions Ministry. (Tok. Jap. 2/15/45)

Special Attack Corps

Calling on all coal mines in Kyushu and Yamaguchi, the Kyushu Local Mining Bureau launched the "Increased Coal Production General Attack to Achieve Sure-Victory in the Decisive War" movement in three separate periods between December 8 to the last day of last year. The champions of all coal mines, in response to the movement, formed Coal Mining Special Attack Corps, deep in coal mountains, and even refused year-end holidays in order to continue their daring fight. As a result, they made a very good showing of increasing the coal output per day by 120 to 170% as compared to their average coal output. (Tok. Jap. 1/11/45)

The students of Ashigakubo National School in Ashigakubo Village, Chichibu District, Saitama Prefecture, achieved the splendid result of having transported 10,000 bags of coal up to now. However, saying that this is not enough, and this time with the spirit of following the Special Attack Corps, they decided to help with the transportation of coal. With names of a Special Attack Corps, such as the Kikusui Corps and the Kunno Corps, and carts with flying banners, they are continuing the great activity of the transportation of coal... It is said that they are in high spirits going to and from Chichibu City's ten kilo road every day. (Tok. Jap. 4/15/45)

Yuubari Industrial Army

A campaign for the victory production of coal has been launched in Hokkaido. With the aim of instituting a military system in all the mines in Hokkaido, a certain mine in Yuubari has planned the formation of the "Yuubari Industrial Army" (Yuubari Sangyoogun). These special attack mine units have sallied forth into many of the mine passageways, and women workers are also volunteering for these units. They are manifesting the fighting spirit of the miners, saying that they will crush any enemy setting foot on their homeland with lumps of coal. The Yuubari Industrial Army, the fighting corps of the hills, has the superintendent as its commander-in-chief, while the foremen act as unit commanders. Upon issuance of an order from the unit commander, the workers abide by it, and no word of complaint as to the shortage of help or of materials escape from their lips. They are determined to accomplish their labors, even though it may extend throughout the night in order to produce the amount of coal called for in an order. (Tok. Jap. 3/24/45)

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CORPORATIONS AND COMPANIES

Furukawa Electrical Industries

See LIGHT METALS, Control, Metals Industry Control Association, 1/15/45.

Kyushu Steam Electric Generating Company

See ELECTRIC POWER, Legislation, Munitions Company Law, 4/20/45.

Mitsubishi Electric Company

See LIGHT METALS, Collection and Production Programs, 5/22/45.

Nippon Electric Power Company

See COAL, Distribution, 3/2/45.

Nippon Electric Power Transmission Company

See ELECTRIC, Legislation, Munitions Company Law, 4/20/45.

Nippon Hassoden Kaisha

As the water power stations of the Nippon Hassoden Kaisha have been blessed with an appropriate amount of rainfall throughout the nation, the conditions for generating electricity are exceptionally good, and though the month of December has approached, during which it is usually the custom to ration the use of water, there continues to be a plentiful supply of water. Thus, at this moment, all the water power stations located in the central part of Honshu have more than a plentiful supply of water power for the generation of electricity, which is a rare condition. In view of the existing situation, the Munitions Ministry has decided not to issue the customary notices limiting the use of electricity used for special facilities as well as for general uses in homes. (Tok. Jap. 12/11/44)

Oki Electric Company

See MISCELLANEOUS, Financing, Capitalization, 2/6/45.

Showa Electro-Chemical Industries

See MACHINERY, Control, Construction Machinery Control Association, 1/26/45.

Tokyo Shibaura Electric Works (Tokyo Shibaura Denki Kaisha)

See MISCELLANEOUS, Research, Progress and Awards, 12/5/44.
See MISCELLANEOUS, Financing, Capitalization, 2/6/45.

GOVERNMENT ADMINISTRATION

Electric Power General Management Headquarters, Munitions Ministry

In order to take every possible step for directing general management of electric power to cope with the changes in the war situation, the Munitions Ministry at this time decided to establish Electric Power General Management Headquarters in the nine electric supply company districts throughout the nation. The Electric Power General Management Headquarters will have vice chiefs of the Munitions Superintendence Bureaus in the respective areas as heads of the headquarters. Also, chiefs of the Electric Supply Bureaus of the Munitions Superintendence Bureaus, presidents of the electric supply companies,

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GOVERNMENT ADMINISTRATION

Electric Power General Management Headquarters, Munitions Ministry

and branch chiefs of the Nippon Electric Supply Company will respectively be (vice chiefs). Under them...organs and the general management committees will be established and important matters concerning general management of electric power, strengthening of defense, general lending of (personnel) and materials, improvement of...and mutual assistance will be decided upon in the near future. Therefore, important supervisory (officials) and the (officials) of the Nippon Electric Supply Company will be transferred to the local areas and will become the (nucleus) of individual management of electric supply in the various local areas, in coping with the emergency situation. Furthermore, the concrete establishment of the Electric Supply General Management Headquarters will commence speedily after May 1.
(Tok. Jap. 4/28/45)

Technical Committee for Rational Use of Electric Power

The inaugural meeting of the Technical Committee for the Rational Use of Electric Power was held here Monday. Organized under the sponsorship of the Munitions Ministry, the committee, which includes among its members officials of competent ministries and also leading scholars, will draw up plans, conduct investigations and deliberate upon questions concerning the rational use of electricity. The committee is divided into nine sub-committees.

(Tok. Eng. 1/23/45)

The Munitions Ministry previously established a "committee to study reasonable consumption of electric power" and promoted a technical study of the practical use of electric power. Due to the abundance of electric power recently, the ministry has decided on more practical use of electric power for heating and other purposes. Enlarging and strengthening at this time the previous "committee to study reasonable consumption of electric power," the ministry changed the name of this committee to the "committee to study technically the practical use of electric power," and will exert more effort on the practical use of electric power. The first general meeting will be held on May 13. As questions requiring immediate attention at this first committee meeting, problems of electric power generation, converting of boiler fuel into electric heat, and electrifying of farm villages will be studied.

(Tok. Jap. 5/9/45)

LEGISLATION

The Munitions Ministry has decided at this time to merge the Nippon Electric Power Transmission Company and the Kyushu Steam Electric Generating Company. In accordance with Article 12 of the Munitions Company Law, an order for the merger was issued to both these companies. As a result, the system of management of electrical enterprises in the Kyushu District will be greatly strengthened. The merger is expected to be completed by June 1.

(Tok. Jap. 4/20/45)

RESEARCH, INVENTION, DISCOVERY

Mr. Eizaburo Tominaga, a civilian inventor and a part time official of the Transportation and Communications Ministry, who has been studying ways and means to turn sea current into fighting power in preparation toward utilizing the fighting power resources of maritime Japan, recently succeeded in the experiment of using sea current to generate electric power. This invention will not only insure

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RESEARCH, INVENTION, DISCOVERY

an extremely abundant supply of electric current, but also enable assignment of the whole of the undisclosed tons of coal needed in the generation of hydro-electricity to large and vital industries, thereby contributing greatly toward increased decisive war production. The construction of the working places to generate electricity by utilizing the ebb and flow of the seas is now in progress through Mr. Tominaga. The working places can be completed in a very short period of time, inasmuch as this method of generating electricity does not require an exceedingly large lay of the land and place or an extremely large-scale engineering work, as in the case of hydro-electric dams, and narrow harbors can be used as reservoirs just as they are. It is also possible to supply an undisclosed kilowatt of electric current only with the facilities now planned. Moreover, many suitable locations are found in Kyushu and other districts, and thus the utility value of the seacoasts of maritime Japan is steadily increasing. The future of increased electric power is looked forward to with great anticipation.

(Tok. Jap. 2/27/45)

PRODUCTION PROGRAMS

Forty-three electric generating plants throughout Japan are scheduled to be completed by the 8th of March. This is a result of the strenuous efforts of the Munitions Ministry to expedite their construction during the dry season. Especially noteworthy is the fact that of the 43 plants, 9 were not scheduled to be completed until winter. The completion of these power plants will serve greatly in bolstering the power generation, indispensable in munitions production.

(Batavia Eng. 1/13/45)

...Definite plans to make the most of surplus hydro-electric power, ...the rainy season this year, have been fixed by the Munitions Ministry. The step has been taken in view of the remarkably abundant water condition this year, and the present hydro-electric power can more than afford to supply various industries formerly designated by the ministry with surplus power. According to the measure, a large-scale shift from coal power to water power will take place in numerous industrial and private enterprises on the Japanese mainland, Hokkaido, and...for a period from March 16 to the end of June.

(Tok. Eng. 3/25/45)

DISTRIBUTION

Shortage

At this point an announcement from the station will be related: ... Please turn off your radio as soon as this broadcast is over. Please do this to save some electric power and to keep (radio sets) in service longer.

(Tok. Jap. 1/1/45)

Electrification and Use of Hot Springs

Nagano: Ground breaking ceremonies for the development of the Nanatsukama Hot Springs, on the shores of Lake Suwa, will be held before the year-end, pending the arrival of Governor Otsubo to Suwa City. Upon completion of the work of piping the waters of the hot springs, such war industries as the dehydration of vegetables, the drying of lumber, and dyeing and weaving will be started. The hot water is valuable for industrial purposes, as it flows constantly at a temperature of 80° centigrade. The city will work to pipe water to public bathhouses and private homes and, at the same time, erect public kitchens and baths at various places for factory workers.

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DISTRIBUTION

Electrification and Use of Hot Springs

As the second project, the city is planning to distribute the hot water to all parts of the city and convert the 500 private hot water pools in the city into public-operated springs.

(Tok. Jap. 12/21/44)

Earlier, the Munitions Ministry had formulated plans to increase production in 1945 by utilizing electric power during the abundant water period and had designated essential factories and industries which would be allowed the use of the surplus power. Since then, water flow has been very good and, with warm spring weather at hand, it is certain there will be a considerable extra surplus of power this year, even if the power is utilized according to the above plan; so a new plan to increase the utilization of this surplus power has been worked out. As a result of the planning, it was decided to divert this extra power to the areas where the supply of coal and other fuels is acute. From March 16 to 31, electrification will be carried out in Honshu, Hokkaido and Shikoku, with the exception of Chugoku District in Honshu. As this project is to aid the conservation of such essential fuel as coal, the electrification of boilers and bath houses -- both public baths and baths attached to factories -- and the partial utilization of water power for domestic power generators, now using coal power, will be permitted. In order to obtain this surplus power, applications must be made and permits will be issued upon investigation. The electrification of public baths in the six large cities is expected to begin from the middle part of April.

(Tok. Jap. 3/25/45)

Osaka: For some time, the Osaka Prefecture has been seeking to hasten the establishment of proper facilities for the double purpose of utilizing surplus power during the periods of abundant water, and of effecting economy in fuel. In line with this program, electrically heated baths were under construction at the Konohana Hot Springs, which are under the jurisdiction of the Konohana Police Department. These baths having been completed, tests will be made by the proper authorities at 3:00 p.m., April 10. If proved satisfactory, they will be opened for business on April 11. The prefecture is pushing further measures for the utilization of this electric power, which is considered sufficient for 500 bathing establishments. In the near future, a considerable number of electrically heated baths will make their appearance for the convenience of the people within Osaka.

(Tok. Jap. 4/10/45)

Hokkaido Electrical Power Distribution Company (Hokkaido Haiden Kaisha)

The assignment based upon the Munitions...Factory Ordinance, which was announced and put into effect on January 27, has been already applied to four industries, namely...transportation, the port works, local railways, and electrical communications. ...Effective on April 10, the Hokkaido Electrical Power Distribution Company and eight other electrical power distribution companies will be assigned. However, in reference to the electrical power industries, the Nippon Electrical Power Transmission Company (Nippon Hassoden Kaisha) had been assigned by the Munitions Ministry before. This present action in regard to the electrical power distribution industry, which has a close relationship with this electrical power transmission industry, will enable the Munitions Ministry to establish a structure for the security in supply of electrical power, which is the basis of the munitions production. Incidentally, with the designation of these nine electrical power distribution companies, 57 main offices and branch offices will be effected. (Tok. Jap. 4/9/45)

ELECTRIC POWER AND APPLIANCE
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DISTRIBUTION

Kyushu Electric Power Distributing Company

Ogura: The Ogura branch of the Kyushu Electric Power Distributing Company last year named some 20 leading members of its branch to become technicians to repair lighting facilities and wiring in the homes. Recently, the company decided to form a young boys' technician group from among the national school students, to aid in reconstruction work in the raided areas. In the reconstruction of major power line projects, men workers will be mobilized and trained.

(Tok. Jap. 3/28/45)

The Kyushu Electricity Distribution Company has made a plan for the electrification of the whole agricultural district in Kyushu. The firm will supply 6,000 motors this year and distribute them to the villages...

(Tok. Eng. 4/8/45)

Nippon Electrical Power Transmission Company (Nippon Hassoden Kaisha)

See ELECTRIC POWER, Distribution, Hokkaido Electrical Power Distribution Company, 4/9/45.

See ELECTRIC POWER, Legislation, 4/20/45.

Nippon Electric Supply Company

See ELECTRIC POWER, Government Administration, Electric Power General Management Headquarters, 4/28/45.

ELECTRIC APPLIANCES

Akasaka Instrument Assembly Plant

Contributing their full share toward the nation's war effort are the geisha in Akasaka District, practically all of whom belong to the Volunteer Labor Service Corps. For about a year, a group of about 70 geisha girls have been working at a small plant set up last April by a certain electric company. The geisha form the nucleus of the crew of some 120 women workers at the plant between the ages of 16 to 40. The task of the girls at this little factory, set up in a large Japanese style building, is to assemble vital instruments which, according to Mr. Hino, plant director, are used "both in airplanes and on the ground." Mompei clad geisha workers work in groups around tables, on tatami. Passing through various rooms of the building, one can see intricate looking instruments in various stages of construction. The girls have blue-print plans to aid them in assembling the parts. Experts from the electric company check on their work from time to time, to see that all is going along smoothly. After completion, the instruments are given a final check-up by experts before being delivered. Mr. Hino said that when operations were begun in April, last year, he had serious doubts as to the ability of geisha girls to produce such an intricate device. "However, the girls, showing surprising initiative, soon caught on to the work and are now doing fine," he declared. Miss Sato, one of the geisha workers at the plant, says the girls work regularly from 8:00 a.m. to 4:00 p.m. "However, when we have a rush order, we girls work on continuously up to 11:00 p.m. sometimes."

(Tok. Eng. 3/2/45)

ELECTRIC POWER AND APPLIANCE
INDUSTRIES

ELECTRIC APPLIANCES

Electrical Machinery Control Company

See MACHINERY, Control, Machinery Material Distribution Company,
11/20/44.

The Electrical Machinery Control Association (Denki Kikai Tooseikai) and Electrical Machinery...have decided to adopt measures for security in production of electric agricultural implements, as well as for their distribution on a priority basis, so that as many electrically powered farm implements as possible can be distributed to villages for increased production of foodstuffs. As a first step, these implements, including those which are already in warehouses in (Tokyo), as well as those throughout the nation, will be distributed to farms in the Kwantō and Tohoku districts. Similar steps will be applied gradually throughout the nation. In this manner, it is expected that an effort will be made for speedy popularization of electrification on the farms. (Tok. Jap. 3/29/45)

Haizuka Electric Machinery Works

Saga: The Haizuka Electric Machinery Works was recently awarded a letter of appreciation by a unit commander at the...base. At the time when the plant was caught in a whirl of work to produce automobile parts, the commander put in a request for urgently needed repair work on an enormous quantity of weapons. The directors were troubled by this unusual order, but President Haizuka accepted the task... (Tok. Jap. 1/29/45)

Miyazaki Transit Company, Ltd.

Miyazaki: Risuke Tomita, a foreman in the electrical department of the Miyazaki Transit Company, Ltd., has succeeded in inventing a method of electrically welding the ends of broken wires. This invention was the result of his study in making improvements in the repair of automobile engine parts, which is very difficult. Furthermore, he made a research on the winding of insulation coils. Applying the combination of gears and chains of the automobile, and by a simple operation, he succeeded in the winding of insulation (coils). Thus a 100% reconditioning of old coils has been possible by using readily available materials. (Tok. Jap. 2/14/45)

Oki Electric Company, Gumma Prefecture

A plant of the Oki Electric Company in Gumma Prefecture has recently perfected a wooden boring machine. In order to supplement the shortage of machine tools and to conserve every piece of iron, this plant hit upon the idea of producing wooden boring machines. Mobilizing all the technicians under the direction of Factory Superintendent Shirodo, studies were being conducted along this line. Their experiments were rewarded with amazing success and the trial use of this new machine has been exceedingly satisfactory. The greater part of the body and the pulleys of this wooden boring machine is made of oak or other hard wood. Iron is employed only for the shaft and chucks. Experiments have proved that this new product is in no way inferior to those made of metal. The plant has arranged for the production of the first 50. The new boring machine is a triumph for the Japanese technical circles. (Tok. Jap. 12/11/44)

Showa Electro-Chemical Industries

See MACHINERY, Control, Construction Machinery Control Association,
1/26/45.

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ELECTRIC APPLIANCES

Toyama Broadcasting Station

Toyama Prefecture: The Toyama Broadcasting Station will sell tubes with special certificates. When these certificates are received, you can buy new tubes when the old ones are submitted.

(Tok. Jap. 3/30/45)

Vacuum Tubes

The Munitions Ministry, on December 28, awarded the Munitions Minister's Awards to Joyoji Tsumori, superintendent of the Tokyo Shibaura Electric Works, and the vacuum tube engineers. This company had been engaged in the manufacture of vacuum tubes and other electrical equipment for a long time, turning out excellent products. Recently, the factory effected improvements in the use of raw materials and new design of production machinery.

(Tok. Jap. 12/28/44)

...One of the outstanding ideas is one which originated with Eisaburo Nishibori, which is a new method for allowing the mass production of vacuum tubes. At present, the manufacture of vacuum tubes is done largely by big factories. In view of the fact that production is hampered greatly, once these factories are hit during air raids, the new method is an improvement for it can be adopted by home workshops.

(Tok. Jap. 5/14/45)

Yugetsu Electrical Apparatus Company

Tsu: First year students of the Yamada Girls' Commercial School in Miye Prefecture have won the confidence of the owner of the factory in which they work. The girls are employed in the Yugetsu Electrical Apparatus Company. When Mori, principal of the school, visited the factory to see what his students were doing, the inspired workers agreed to maintain their excellent attendance record and produce more for the Imperial forces still fighting at Iwo Jima and the Philippines.

(Tok. Jap. 3/13/45)

Nikko Lava Research Laboratory of Tokyo

Kofu: In Yamanashi Prefecture, within the "gun" that has lava beds, lava was hitherto considered a "nuisance" for increased food production. Recently, this lava, which once flowed from Mount Fuji, has finally been made into an essential "fighting material" as a covering material in electric welding of aircraft, warships, ..., tanks and other ordnance production. The Nikko Lava Research Laboratory of metropolitan Tokyo dug up hundreds of tons of protruding lava on the banks of the Katsura River, and has been assaying them at a (censored) factory. Results have proved that this lava is in no way inferior to foreign silicates, flourite and borax, so large-scale exploitation has been decided. Heretofore, various quarters have been experimenting for the domestic production of electric welding material, but the Nikko Laboratory was the first to turn its attention to utilizing lava, finally succeeding in producing the chemical domestically.

(Tok. Jap. 2/21/45)

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CORPORATIONS AND COMPANIES

Gas Industrial Association

The gas industry has been placed on a complete wartime footing by the establishment of a Gas Industrial Association. The new association, headed by (Kuniiso Haro), will greatly help to meet the increasing demand for gas by the munitions industries.
(Tok. Eng. 12/12/44)

Imperial Petroleum Company (Teikoku Sekiyu)

See GASOLINE, Research, Imperial Petroleum Company, 4/18/45.

Notable features of the Government Investments Special Account are ...and the paying up of the government's share of the Imperial Petroleum Corporation's capital increase by 180,000,000 yen.
(Tok. Jap. 1/6/45)

Mitsui Oil Manufacturing Company

See GASOLINE, Government Administration, War Production Firms, 5/1/45.

Nikka Fat and Oil Company

See GASOLINE, Government Administration, War Production Firms, 5/1/45.

Oji Paper Manufacturing Company

The Oji Paper Manufacturing Company has proved that absolute alcohol can be extracted from the waste of pulp. This alcohol is good for drinking and, moreover, an excellent fuel substitute can be gained in the process of this production, the company said. Alcohol is now being produced on a large scale. The Tohoku Alcohol Manufacturing Company, on the other hand, has succeeded in getting butanol--a high class fuel--from corn. This butanol far surpasses that made from sweet potatoes or potatoes. It is more easily and speedily produced.
(Tok. Eng. 1/24/45)

Petroleum Manufacturing League

...A step forward to boost alcohol production has now been decided on by the Fuel Bureau of the Munitions Ministry, and the Petroleum Manufacturing League. Surplus equipment which has been idle at the oil refineries is to be repaired and set aside for this purpose.
(Tok. Eng. 3/25/45)

Synthetic Oil Company

In reply to a query by Kazuo Katayama on the liquid fuel situation, in one of the sub-committee interpellations, Munitions Minister Yoshida declared, "With regard to synthetic oil, the recently established Synthetic Oil Company is producing steady results, as planned at first."
(Tok. Eng. 1/28/45)

Tohoku Alcohol Manufacturing Company

See GASOLINE, Corporations, Oji Paper Manufacturing Company, 1/24/45.

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I N D U S T R I E S

CONTROL ASSOCIATIONS

Oil and Fats Control Association

See CHEMICAL INDUSTRIES, Control, Industrial Chemistry Control Association, 3/8/45.

PROMOTING ASSOCIATIONS

Artificial Petroleum Survey Corporation (Jinzoo Sekiyu Koosa Han)

As an important measure for the liquid fuel policy, the government adopted a unified (control) system for the artificial petroleum industry and has been extending concrete aid toward its firm establishment. However, in view of the ever-increasing critical war situation, the government decided to establish the Artificial Petroleum Survey Corporation (Jinzoo Sekiyu Koosa Han), consisting of the members of the Fuel Bureau and the Total Mobilization Bureau of the Munitions Ministry, and members of the army and the navy. These members will be dispatched to artificial petroleum factories throughout the nation for three months, beginning March 1, for a survey of products of artificial petroleum, in order to further expedite increased production. (Tok. Jap. 2/25/45)

Crude Petroleum Increased Production Promotion Headquarters, Niigata

With the military government and people united, the movement for increased production of Japanese crude petroleum in Niigata Prefecture is engaged in an active battle for increased production. Anticipating the strengthening of this movement, the Niigata Prefecture Crude Petroleum Increased Production Promotion Headquarters decided to expedite further the increased production of crude oil, in connection with its actual work, by sending students to the spot and drilling wells for crude petroleum, as well as to plan for the expansion of oil wells already in existence. (Tok. Jap. 5/1/45)

GOVERNMENT ADMINISTRATION

Heat Control Committee, Munitions Ministry

In order to plan for the progressing petroleum, coal and gasoline enterprises, and also to contribute to the urgent demand for power, the Munitions Ministry will establish a sure-victory strengthening measure for...control and also heat control. Therefore, it was decided at yesterday's Vice Ministers' meeting to enforce this, and the campaign will be positively carried out from February 20 to July 5, with government officials and various affiliated organizations acting as one body. During this period, it is expected that the production and...of petroleum and coal will be increased, in consideration of the recent self-supply situation, also, in order to cope with national industrial rationing, it is expected that 20% will be saved on lubrication oil and gas, and also that other fuels will be cut down 10%. Factories and enterprises with records of excellent achievement, and persons with meritorious service recognition, will be awarded when this period ends. Moreover,...a Heat Control Committee will be appointed in the Munitions Ministry by various affiliated Ministries of War, Navy, Munitions, Transportation and Communications. (Tok. Jap. 2/26/45)

Liquid Fuel Measures Deliberative Council, War Ministry

Our army and the navy recently established the Fuel (Machinery Industrial) Council for stabilization of the Southern Regions crude petroleum and also increased production of liquid fuel from domestic

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GOVERNMENT ADMINISTRATION

Liquid Fuel Measures Deliberative Council, War Ministry

natural resources. At this time, this Council will be dissolved... and a Liquid Fuel (Measures) Deliberative Council will be established to take up measures for speedy increased production of... (fuel) by...production and control which were heretofore divided between the army and the navy. (Tok. Jap. 12/21/44)

War Production Firms

The Agriculture and Commerce Ministry today has designated four fat and oil manufacturing companies, such as the Mitsui Oil Manufacturing Company, as war production firms. This measure has been taken in order to insure manufacturing of fat and oil for liquid fuel. These are the first war production firms under the jurisdiction of the Agriculture and Commerce Ministry. In addition to (these four companies), two companies, namely, the Dai Nippon Chemical Industry Company and the Nikka Fat and Oil Company, will be operated by both Agriculture and Commerce and Munitions Ministries. This has been (announced) by the Munitions Minister.
(Tok. Jap. 5/1/45)

RESEARCH, INVENTION, DISCOVERY

Central Pine Root Oil Emergency Increased Production Liaison Council, Agriculture and Commerce Ministry

With the outbreak of the current war, research was conducted (still) further until a refining process was discovered which converted the pine oil into a volatile aircraft fuel. Tests have shown it to be qualitatively equal to, if not superior to, high octane gasoline obtained from petroleum. The profitable factor is the large amount of valuable by-products also available, such as tar, wood and acid, which can be used in the manufacture of aircraft parts. Experts disclose that the older the roots the greater the oil content. For instance, roots from a single tree which have been dug and left to age for approximately 10 years yield from 375 kilograms to 54 liters. Roots pressed two or three years after being dug give about 45 liters of oil.
(Tok. Eng. 12/28/44)

As the demand for pine root oil, which is removed from the roots of pine trees, has increased more and more, the Agriculture and Commerce Ministry, through the cooperation of various parties concerned, will strongly carry out the urgent need for increased production of the oil. The establishment of the "Central Pine Root Oil Emergency Increased Production Liaison Council" has been hastened, and the committee members and the executives have been selected from the representatives of the government and the people. The first deliberative council conference will be held on the 30th of next month.
(Tok. Jap. 1/31/45)

In order to effect emergency production increases of pine root oil now under way throughout the entire nation, the Agriculture and Commerce Ministry called its first of a series of meetings by the Central Pine Root Oil Production Increases Deliberative Conference (Chuuco Shookon-yuu Zoosan Kyoogikai) from 10:00 a.m. at the Imperial Hotel. A report was first made by Chairman Shigemasa, regarding conditions in the production of pine root oil as of the present. This was followed by deliberations upon ways and means to expand and perfect measures for production increases. As of the present, the... of pine roots has already surpassed the goal set for the fiscal year of 1944. In view of the efforts now being made by the entire nation

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RESEARCH, INVENTION, DISCOVERY

Central Pine Root Oil Emergency Increased Production Liaison
Council, Agriculture and Commerce Ministry

to achieve further production increases of pine root oil, and hoping to accelerate these production increases, the Army Ministry has decided to permit sale of the government property in (possession) of the Ministry when petitions have been made by the leaders of cities, towns and villages to (fell the pine trees), just so long as it will not be in the way of army maneuvers.

(Tok. Jap. 2/13/45)

...In the Koriyama District of Fukushima Prefecture, the number of cauldrons to dry-distill the pine root oil has been increased three times the former figure. Quite to their surprise, the people were able to...the (crude petroleum) during (last) month. In Nagata, too, the dry-distilling cauldrons are presently being (set up) for the purpose of effecting concrete (production) of pine root oil. Keen enthusiasm is being displayed in making every necessary preparation.

(Tok. Jap. 2/20/45)

In order to boost pine root oil increased production, the navy decided to take a concrete step toward its increased production by dispatching affiliated men to six prefectures, under the jurisdiction of the Tohoku District, the Kanto District, the Chugoku District and the Shikoku District Administrative Councils, for the purpose of giving instructions in the..., furnace construction as well as acting as liaison officials with other districts.

(Tok. Jap. 2/25/45)

As regards the production of pine root oil, a vital wartime material, good results are being achieved due to the great efforts exerted in all fields. The Ginko (Oil Refinery) factory in Kanagawa Prefecture named the period from February 11 to March 1 as the period for special-attack demonstration in the production of pine root oil, and by...worked hard to achieve the set goal. Already, the splendid result of attaining a 50% increase in production has been seen.

(Tok. Jap. 2/26/45)

Takamatsu: Since January, experiments have been conducted at the Kagawa Prefecture Industrial Experimental Laboratory (Kagawaken Koogyo Shikenjo) for the extraction of fuel oil from pine tree oil. Recently, the first experiment having been completed satisfactorily, results were published on March 7. According to the experiment, when 3,120 kilograms of quicklime are added to 100 "koku" (1 koku equals about 48 gals. - Trans.) of the pine tree oil, a liquid portion and lime soap results. By destructive distillation of this lime soap, 67 "koku" 6 "to" of dry distillation crude oil is obtained, which, when re-distilled, produces a by-product, methane gas, which is necessary for fuel gas. On the other hand, when distilled under 160 degrees, 16 "koku" 6 "to" of light oil is obtained, while 37 "koku" 2 "to" of medium oil is obtained when distilled at 165 to 300 degrees. Further, when distilled at 300 to 330 degrees, heavy oil in the amount of 7 "koku" 4 "to" is obtained. This experiment has proved to be a wartime scientific triumph, since 61 "koku" 2 "to" fuel oil is obtainable from 100 "koku" of pine tree oil.

(Tok. Jap. 3/8/45)

To bring about unprecedented production increases in pine root oil, a substitute fuel for aircraft, the government will launch its second of a series of (already arranged) plans for this purpose. The new "plans for the effectuation of expansion and increased production of ..." were adopted during the Cabinet meeting of March 16, and an

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announcement to that effect was made by the Board of Information the same day. In conformity with the development of the war, the latest governmental plans call for attainment of a positive production increase status in oils derived from the roots of pine trees and Japanese cypress trees, as well as from the branches, leaves and resin of acerose trees (shinyoo-jyu - Ed.).

(Tok. Jap. 3/16/45)

An oil engineer in Niigata Prefecture succeeded in refining pine crude oil with the use of volcanic ash. By this new method, highly efficient aeronautical fuel can be obtained in a larger quantity and more simply than by the method in use. Besides, (signal) oil and machine oil can be obtained as by-products.

(Tok. Eng. 3/19/45)

The navy, for purposes of further promoting the emergency increased production of pine root oil campaign, which is presently being carried out on a nation-wide basis, recently set up Naval Construction Corps (Kaigun Kensetsu Han - Ed.). These corps will be dispatched to the various regions and will be asked to engage in the guidance of the construction of jugs and oil-producing (vessels). The National Agriculture Economic Association (Zenkoku Noogyoo Keizai Kai) conducted a meeting of the nation's entire branch directors in its headquarters in Tokyo on March 23 and, as a result of deliberating upon measures for boosting the production of pine root oil, it set up its emergency pine root oil extraction advocacy organ (kinkyuu shookonyu saishutsu kyoochoo kixan - Ed.). While this organ will build oil-producing factories, it will also engage in guidance for promotion of the technique of dry distillation. This is the policy of the National Agriculture Economic Association.

(Tok. Jap. 3/26/45)

Yamagata's quota of pine root oil for this year has been set at 52,260 koku. By May, the extraction of oil from pine tree roots which were uprooted last year will have been finished, so Yamagata Prefecture will start digging up more trees in April, simultaneously with the melting of the snow. About 2,010 trees will be the goal. A large vat to extract the oil will be installed soon and, starting in April, great efforts will be made to increase production of this lubricant throughout the prefecture.

(Tok. Jap. 3/30/45)

Chugoku region, Tottori Prefecture: Recently, 583 pieces of pine root oil distillation apparatus were distributed to the (local factories). Shotaro Hase, an elderly man from Omikado-mura in Yagigun, who has been experimenting on pine root oil for 30 years, is introducing his method to the people, and is actively teaching the technicians his refining process...

(Tok. Jap. 5/8/45)

...The process of obtaining pine root oil includes the stripping of the bark around the pine tree in the shape of a headband, and then a bamboo pipe is attached to the tree, underneath which is placed a receiver. The receiver is soon filled with fresh pine gum. This operation can be easily carried out by women and children. In Takatsuki, Maikata, Tsuda and Kuroda, the children, together with the members of the women's corps, are devoting their time in this pine root production.

(Tok. Jap. 5/12/45)

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Akita: The pine root oil refinery in Yatsumori-shi, Yamamoto-gun, Akita Prefecture, has developed a method of conveying the natural gas spouting from the neighboring petroleum diggings through pipes to their furnace, utilizing this gas in place of firewood. After the oil is extracted, the roots are made into charcoal, which is distributed to the homes in the vicinity, where it is greatly appreciated.
(Tok. Jap. 5/17/45)

East Asia Marine Chemical Products Company

Matsuyama: Just at this time when emphasis is being placed on the production of pine oil, a scientific triumph has been achieved in producing a substitute fuel oil from bamboo. The East Asia Marine Chemical Products Company has been carrying on experiments for several years to produce a bamboo oil varnish. These studies recently resulted in the discovery of a substitute fuel oil. Large-scale production has been launched. One kan of bamboo leaves and stalks will yield one sho of the oil. From the standpoint of the ease in gathering materials, as well as the slight amount of labor required, the extraction of oil from bamboo promises decided advantages.
(Tok. Jap. 1/10/45)

For the past six years, Yasuzo Futami, president of the GEA Marine Products Chemical Company in Ehime Prefecture, has been making a study of obtaining an insulating paint for electronic weapons from bamboo leaves, and his efforts have been crowned with startling success. During the process of the paint production, he made another discovery - that of obtaining an excellent fuel for planes. The materials obtained from the various kinds of bamboo grass or fern are put into a kiln. The resulting vapors are passed through 7 or 8 unglazed vats connected by bamboo...and liquefied to produce three different types of oils in the fractional distillation. The #1 oil is excellent as airplane fuel, while #2 and #3 oils can be mixed with bamboo charcoal to make insulating paint. One hundred kan of bamboo grass will produce two koku of refined oil, which is a far higher yield than that produced by an equal amount of pine roots. Twenty per cent of the oil is the #1, plane fuel oil, 50% is the #2 oil, which can be used for internal combustion engines, and 30% is the #3 oil, which is used for the special paint. The residue yields materials as bamboo charcoal, carbon, and activated carbon.
(Tok. Jap. 3/20/45)

Ginko Oil Refinery Factory, Kanagawa

See GASOLINE, Research, Central Pine Root Oil Emergency Increased Production Liaison Council, 2/26/45.

Hokkaido Experimental Farm

Asahikawa: With the movement sweeping the nation to produce oil for victory from roots and leaves of pines, Nobukiyo Takahashi, assistant professor at the Hokkaido Experimental Farm of the Tokyo Imperial University, has discovered a method of extracting oil from birch bark. Through a distillation process, the bark is broken up into tar, acids, and charcoal. The tar is further distilled to obtain oil which is excellent for lamps. The light thus produced is said to be brighter than that given by coal oil and, if a thin wick is used, there is no need to use a lamp chimney. The oil, when refined, is said to be excellent for lubrication and fuel purposes.
(Tok. Jap. 3/4/45)

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RESEARCH, INVENTION, DISCOVERY

Hokkaido Forestry Research Institute

Mr. (Tameiko Ikada) has recently succeeded in extracting starch for making alcoholic spirits from poisonous plants of various kinds which have hitherto been cast away as useless. ...about a half a litre of alcohol can be obtained from two kilograms of starch extracted from four kilograms of cherry tree... The Hokkaido Forestry Research Institute of the Agriculture and Commerce Ministry has worked out a method of distilling light oil, suitable for motor cars, from pine trees, pine tree leaves and twigs. This substitute oil... has heating power higher by over 10% than gasoline. As a motor fuel, oil extracted from the roots of the pine trees,...is producing 60% of the total output... (Tok. Eng. 11/16/44)

Hokkaido Local Mine Department

Sapporo: The Hokkaido Local Mine Department has succeeded in extracting light and heavy oils and gasoline by destructive distillation of a poor grade coal, called (zuritan), hitherto unnoticed by the people. All that is needed for this process is a hobo's stove (rumpen sutoobu) and a cooling chamber. First (zuritan) is roasted in the oven; the resulting gas is conducted to a cooling chamber by an iron pipe. Fractional distillation of the crude tar that comes out of the cooling chamber will yield gasoline, light and heavy oils. (Tok. Jap. 12/1/44)

Hokkaido Marine Products Experimental Center (Hokkaido Suisan Shiken Jo)

...Through the utilization of the period during which spring herring acquire greater quantities of fat, following their spawning, the Hokkaido Marine Products Experimental Center (Hokkaido Suisan Shiken Jo - Ed.) is steadily pushing ahead plans for obtaining superior grade lubricating oil to send to the great open skies (to be used for planes - Ed.).

Kushiro, Hokkaido: Intestines and other formerly discarded parts of fish are now playing an important role in wartime fisheries by supplying vital fuel to operate our fleet. Several processing shops scattered throughout the City of Kushiro are now busily turning out fish oil to cover almost 70% of the oil required for operating fishing boats in neighboring fishing villages. (Tok. Eng. 4/4/45)

Imperial Bureau of Agriculture and Forestry

In order to enhance the production of substitute oils, the Imperial Bureau of Agriculture and Forestry recently simplified the method of obtaining patent rights for the process involved in extracting substitute oils from wood. Since 1942, the bureau has been carrying on experiments toward obtaining gasoline from timber. Through the industrialization of the Kiso and Asakawa experimental plants, they have succeeded in undertaking large-scale production, as well as deriving acetone and menthanol (sic) from timber smoke. At present, this enterprise is being carried on in the Kyushu district as well as in various other places but, in order to spread the industry throughout the country, the bureau recently inducted a system whereby patent rights are easily available. Moreover, in cooperation with the army and navy, necessary materials have been distributed and, as a result, increased production is rapidly being realized. On the other hand, the Administration Department of the Munitions Ministry has also focussed its attention on substitute fuel and, parallel with

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the diffusion of oil from pine roots, it has contacted various aircraft factories throughout the country to supply waste material for the production of oils from wood. The present process employed in extracting substitute oil from timber is very simple. A drum can be stuffed with wood and placed in a furnace, after which, approximately eight hours later, the preliminary distillation is completed. During this time, the smoke which passes through the special upper chamber is cooled with water and liquefied, whereupon crude oil is derived. When this crude oil is distilled and refined, a substitute oil for gasoline is produced, besides acetone and methanol (sic). It is noteworthy that, from one ton of timber, 240 kilograms of charcoal and 14 liters of substitute oil are obtained in addition to the by-products of acetone and menthanol. Owing to the fact that at present the refining process of this substitute oil is not completely perfected, it is only used in automobiles, gasoline cars, and fishing craft. However, the Imperial Bureau of Agriculture and Forestry is continuing minute experiments in order to utilize this substitute oil for aircraft in the future. (Tok. Eng. 3/9/45)

Imperial Industrial Company (Teikoku Koogyoo Kaisha)

See GASOLINE, Research, Japan Natural Gas Industrial Joint Stock Company, 2/12/45.

Imperial Petroleum Company (Teikoku Sekiyu)

The necessity of completely revising the fundamental petroleum self-dependency policy has risen as a result of difficulties involving the movement of oil tankers and other shipping. There is a great demand for extensive development of oil fields in Japan proper, along with greater production of synthetic petroleum and pine root oil, as means to assure quantity of aviation gasoline. ...has been more or less dependent on the oil produced in the Southern Regions, and the development of oil wells in Japan proper became very inactive. In the last few years, production at home has gradually deteriorated and, as a result, existing machineries, drilling equipment, as well as accumulated materials and machineries, and oil well experts and workers were sent abroad to the Southern Regions. However, a new oil deposit was discovered recently. It was found, not very deep from the surface, in the area administered by the Niigata branch office of the Kanto Munitions Superintendence Office. The test drill was made at the #1 well of the Imperial Petroleum Company (Teikoku Sekiyu), which had prepared a test drill just prior to the outbreak of the GEA war. The test had to be abandoned because the company's facilities had to be transferred to the Southern Regions. As a positive step toward the development of petroleum resources in Japan proper, a test drill of the #2 well began in January of this year, followed by successive tests. At the #2 well, the well gushed forth on April 3, disclosing one or two veins at a depth of little more than 630 meters. It is already producing hundreds of thousands of tons daily. The crude oil produced here contains a very high octane (number), at a rate quite unusual in Japan proper. High grade aviation gasoline, as well as lubricant oil, a by-product, with low-freezing quality are refined from oil produced from these wells. The test drill of the #5 well, which is now being hurried, is expected to produce somewhat less than the #2, but the #4 well is expected to produce in larger quantity than the #2. It is hoped that some results will be shown the latter part of this month. Production of several thousand tons of crude oil daily is predicted. (Tok. Jap. 4/18/45)

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Industrial Guiding Institute

The Industrial Guiding Institute of Ehime Prefecture, with Technician Ninomiya in full charge, has been doing research work for some time on a method to produce alcohol from orange skins, and recently succeeded in doing so. At this time, this institute is working up a plan to industrialize the process soon under the supervision of Technician Nimoiya (sic). With this step, Ehime Prefecture is taking a part in the increased strengthening of the fighting power, as orange skins had been disregarded up to this time. The concrete results of this plan are greatly anticipated.

(Tok. Jap. 3/16/45).

Japan Natural Gas Industrial Joint Stock Company (Nippon Tennen Gasu Koogyoo Kabushiki Kaisha)

Huge amounts of natural gas have been discovered in Kanagawa Prefecture. The Japan Natural Gas Industrial Joint Stock Company, established for the purpose of developing natural gas resources in the Tokyo metropolis (productive) areas, and attached to the Imperial Industrial Company (Teikoku Koogyoo Kaisha), has been making borings in several places in a certain industrial area in Kanagawa Prefecture since the latter part of last year. The company discovered that natural gas existed there, and therefore had been rushing facilities for proper development. Yesterday, during the process of development in a certain industrial installation, natural gas began to gush out furiously, with a sudden and great roar. It is presumed that the (latent) quantity of this natural gas is vast. The Munitions Ministry also...and it is giving guidance relative to tanks and methods of utilization. It is planned to utilize this as gas for military purposes.

(Tok. Jap. 2/12/45)

...The Japan Natural Gas Company has succeeded in locating several natural gas pockets in Tokyo and its outskirts. On Monday, another gas pocket, about 49 meters deep, was dug out. It was gushing out a large quantity of gas which was found to be an excellent substitute for liquid gasoline.

(Tok. Eng. 2/14/45)

Kagawa Industrial Experimental Laboratory (Kagawaken Koogyoo Shikenjo)

See GASOLINE, Research, Central Pine Root Oil Emergency Increased Production Liaison Council, 3/8/45.

Kanbezawa Experimental Station of Imperial Forestry Bureau at Mito

Experiments to discover methods of extracting light oils from the waste branches and trunks of the Japanese cypress, beech and (mizume) trees have been conducted at the Tokyo Forestry Experimental Laboratories of the Imperial Forestry Bureau (Teishitsu Rinyakyoku Tokyo Ringyoo Shikenjoo), as well as in the principal forests belonging to the crown throughout the country. In the summer of 1940, the laboratory facilities of the Forestry Bureau in the Kiso area were moved to the Kanbezawa Experimental Station at Mito. The experiments, covering four years and five months, having been crowned with success, actual production of...was launched on January 5. According to a report by a YOMIURI correspondent,...gas is conducted into the catalyzing chamber connected to the (oven). If this process is continued for 24 hours, a high-grade charcoal results, and the gas in the catalyzing chamber, in passing over a weak alkali catalyzer heated to 400 degrees centigrade, is converted into a light crude oil from which acetol is taken. The oil produced through the fractional distillation of the crude oil is further purified by hydrogenation. Distilled at

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a low temperature between 75 and 220 degrees centigrade, the oil is washed in an alkali solution, and a small amount of acetol is added. When the resulting product is used as fuel for internal combustion engines, it serves the same purpose as gasoline. Furthermore, if the crude oil is distilled at a temperature between 230 and 250 degrees centigrade, a light oil is produced. Distillation at 250 to 300 degrees produces a perfect heavy oil. One (ton) of the wood waste produces 250 kilograms of charcoal, 8 liters of acetol, 12 liters of refined gasoline, 3 liters of (wd), 1.4 liters of light and heavy oils, and 6 liters of (coalite). The methods used are exceedingly simple and, if production is carried out on a nation-wide scale, we need have no fear of the oil producing enemy nation, the United States.
(Tok. Jap. 1/7/45)

In the field of science, another success has been scored with the discovery of a new method for obtaining light oil. This process involves the extraction of the oil from the wood of the Japanese peach tree and (wd). It will soon be industrialized and processed on a mass-production basis, in view of the fact that it has given better results than all light oils used to date.
(Tok. Span. 1/16/45)

Kyoto University

A professor at Kyoto University, Dr. Ichitaro Sanai, has completed the manufacturing process of a high quality heat resistant gas which surpasses any of the existing bases of this nature in quality. The raw material for the manufacture of this gas is (kyotooseki) and tourmaline, and much boric acid and soda can be saved in its production when compared to the production of other type gases. As its mass production is possible, it is said that its industrial value has been already assured.
(Tok. Jap. 11/26/44)

Osaka Imperial University, Engineering Department

In view of the fact that high quality lubricating oil, which is necessary for all kinds of vehicles, has become more than ever important in this wartime, the Engineering Department of Osaka Imperial University has, for some time, been conducting research under the direction of Dr. Zosaburo (Katsui) of the Engineering Department. Now a new, simple method of manufacturing high quality lubricating oil for vehicles, which is adaptable to mass production, has been perfected. Raw rubber and paraffin, which are abundant resources of the Southern Regions, are utilized in this process. Mass production can also be utilized. Much is expected of future industrialization of these products in the south.
(Tok. Jap. 1/7/45)

Tokoku Mines Bureau

...A new petroleum bed was recently discovered in Akita Prefecture. The (bed) is located at a certain (peat) mine located in northern Akita Prefecture. Water from a certain well was used for drinking purposes for about a year. ...The Tohoku Mines Bureau (Toohoku Koozan Kyoku) immediately conducted on-the-spot tests, and it was discovered that a rich petroleum bed flowed underground.
(Tok. Jap. 3/5/45)

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IMPORT AND PRODUCTION PROGRAMS

Liquid Fuel Situation

South Kyushu: A group of fishermen in Kagoshima Prefecture are all excited about transporting petrol by penetrating the southern waters. The number of Fisheries Association members in the prefecture who wish to transport petrol to be used on the home front has already reached more than the anticipated figure. Preparations for the undertaking are under way, and the spirit of these fishermen is a popular topic of discussion among the people of the prefecture.

(Tok. Jap. 12/21/44)

Mr. Shigero Yoshida, the Munitions Minister, replying, during the January 28 sitting of the Diet, to the question of a deputy regarding liquid fuels, declared: "In view of the military situation, transport of petroleum from the Southern Regions has become increasingly difficult. However, the government will endeavor with all means at its command to obtain it. The government will also make strenuous efforts to increase production here in Japan, in Manchukuo and in China by taking charge of exploration for new wells. We will place special emphasis on the production of artificial petroleum fuels, alcohol, and pine root oil. There is thus no cause for worry concerning the supply of liquid fuels for prosecution of the war."

(Tok. Jap. 1/28/45)

Talk by Supreme Commander Onishi of Japanese Naval Air Forces in the Philippine Islands: "In certain circles there is the fear today that, if the communication route to the south be cut off, oil cannot be imported to Japan. However, is it not true that already from a few months prior to the outbreak of the war there was not a drop of oil which entered Japan? Speaking from the standpoint of oil, too, is it not true that the oil supply, not a drop of which would have entered Japan if things went wrong, came to such a pass that now we are secure as far as fuel is concerned? Considering these points, we are in no way worse off than before the war."

(Tok. Jap. 3/14/45)

Mito: At the...coal mine in Ibaragi, plans have been under way to set up equipment for the liquefaction of...coal. The distillation vat having been finished, the final installations of necessary equipment will be completed shortly. It is expected that the liquefying process of this coal will be started in about mid-May. Not only will...tons of...be extracted, but many by-products will result, and it is expected that the coke residue will provide excellent fuel.

(Tok. Jap. 5/5/45)

Alcohol

Success has been achieved in increasing the alcoholic content of apple cider by...per cent, making it usable as airplane fuel. The apple processing plants under the supervision of the Aomori Prefecture will begin simultaneous operations in order to utilize apples, which will be second to sweet potatoes as a source of fuel.

(Tok. Jap. 3/7/45)

Kenzoo Takayama has perfected a process whereby sawdust can be fermented and converted into alcohol. To produce the ferment, moisture is added to the sawdust which is then exposed to the air at a temperature of 25 or 26 degrees centigrade. When a very small quantity of rice ferment is added to the resulting product, alcohol is produced.

(Tok. Jap. 3/7/45)

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IMPORT AND PRODUCTION PROGRAMS

Butanol

From the munitions point of view, the turnover of (buruku raado) and butanol, which have been under mass production this year as aircraft fuel, is now of vital (necessity)... The Hokkaido District Government Office and the Sapporo Agricultural Association recently held a "turnover conference" in every city and town. Based on the results of these conferences, they compiled information on the current turnover and decided upon a positive measure regarding Indian corn, requesting the turnover of all corn, even one ear.

(Tok. Jap. 12/11/44)

Camphor Oil

...At the Cabinet meeting today, the government decided on a program of measures for emergency production of camphor and camphor oil and the program was announced by the Board of Information. As an aircraft fuel, camphor oil is of extremely high quality and the emergency increased production of this material is greatly desired in order to plan for a drastic increase in air power. The production goal for 1945 is 7,900,000 kilograms of both camphor and camphor oil, the portion being converted to crystalline camphor 5,500,000 kilograms. Looking forward to insuring a supply of camphor wood, which is the basic material for the manufacture of these products, a movement for the contribution of privately and publicly owned camphor trees will be carried out in an effort to attain the production goal and, at the same time, special measures will be carried out so that direct cooperation can be extended by mobilized students and villagers in order to meet the labor requirements for the raising of camphor trees and the manufacture of these products. With regard to the transporting of these products, the government will transport them on a priority basis.

(Tok. Jap. 3/30/45)

At yesterday's Cabinet, the government decided upon huge increases in the production of camphor and camphor oil... Five hundred new mills will be constructed throughout the country to meet the increased demand.

Castor Bean Oil

An emergency measure for the increased production of castor and castor oil (sic), vitally needed for aviation fuel, was decided on at a Cabinet meeting on Friday...(Tok. Eng. 3/31/45)

Resin for Gasoline

In Miyagi Prefecture, a drive to collect pine resin will be started. From a pine tree of one shaku in diameter, between one and one-half and two kilograms of pine resin could be obtained. If there were 200 such pine trees, one shaku in diameter, 200 kilograms, that is, the equivalent to the amount of one gram-tube, could be obtained and this could fly a fighter plane for one hour. This pine resin, which can be made into gasoline, can be obtained in any amount from pine trees in the mountain villages of the northeastern part of Japan, and is a promising source of fighting power. ...last year...the actual amount of collected resin was small, not exceeding nine tons. ...with the increase of gravity in the war situation this year, the project of pine resin has rapidly been expanded, and the quota for this prefecture was recently decided to be 90 tons, ten times the last year's actual collection of pine resin. Therefore, prefectural ...and...have (reported) to the army (fuel) headquarters...that they

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Resin for Gasoline

will make up for last year's (loss) and will fulfill the quota under any circumstances in order to (accomplish) the great project.
(Tok. Jap. 4/21/45)

DISTRIBUTION

Gas

The Munitions Ministry has decided to cut off or cut down the supply of gas for general civilian use other than for..., to secure the supply of gas for the production of decisive war weapons. The Munitions Ministry issued an announcement to the effect that this policy for the supply of gas during the first quarter of the fiscal year 1945-1946 was approved at the Vice Ministers' meeting held on May 3, and that the policy will be in effect by about May 20. According to the announcement, priority in the supply of gas will henceforth be given to munitions industries, such as those of aircraft and radio wave weapons. Gas for family cooking and other civilian uses, therefore, will be subjected to restrictions.

IRON AND STEEL INDUSTRIES

WAR MEASURES

... Factories made fireproof: In order to combat enemy air raids and bombings, a factory of the Japan Iron Works in a certain city is taking steps to ensure absolutely the maintenance of steel production during enemy attacks. It has started to make its factories fireproof, by removing all wooden buildings and structures which are relatively unimportant in the work of producing steel. At the same time, it is helping out with the evacuation of the old, the young, and the sick ...

(Tok. JO 4/6/45)

CORPORATIONS AND COMPANIES

Daido Steel Manufacturing Company

See IRON AND STEEL, Government, Munitions Ministry, 12/29/44

Eishon Koojo

See MISCELLANEOUS, Research, Progress and Awards, 12/5/44

Fujietsu Steel Materials Company (Kozai)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

Fujimoto Iron Works

See LIGHT METALS, Production and Collection Programs, 5/22/45

Fukushima Iron Works

See IRON AND STEEL, Labor, 5/18/45

Hitachi, Ltd.

See IRON AND STEEL, Government, Munitions, 12/29/44

Japan Iron Works

See MISCELLANEOUS, Research, Progress and Awards, 12/5/44
See IRON AND STEEL, Government, Munitions, 12/29/44

Moji: The Japan Iron and Steel Works of Kyushu fulfilled its October production goal. The output of pig iron was 132% compared with the previous month, while the production of steel and steel products was up 22 and 40% respectively from September. The record production was made possible by the introduction of a new steel policy and the determination of the workers to register production victories comparable to the recent victories on the war fronts.

(Tok. JO 11/3/44)

Moji: The Kyushu Refinery of the Japan Iron Works has been engaged in an intensive study to develop methods to increase the output of special steel. On November 13, the company succeeded in finding a solution to greater production of special steel by the use of large open hearth furnaces. The manufacture of special steel by this refinery has attracted the attention of the nation, and its production will immediately effect the production of aircraft, warships and other weapons. In the past, special steels have been manufactured only by the use of 10 to 15-ton electric furnaces, and only some carbonic special steel was manufactured from open hearth furnaces. The new method has revolutionized the old foundry technique, and now a set production of (censored) tons

IRON AND STEEL INDUSTRIES

CORPORATIONS AND COMPANIES

Japan Iron Works

of base at the First Refinery has been completed, resulting in the production of special steel which is just as good, if not better, than that refined by electric furnaces. ...

(Tok. JO 11/20/44)

The Kyushuu Operation Yards of the Nippon Iron Works has succeeded in the production of superior type steel to be used in the construction of (steel frame structures) of air planes. These steel structures are of highest quality materials and can be produced in mass production through utilization of electrical power.

(Tok. JH 11/26/44)

Kokura: The November production record of the Kyushu plant of the Japan Iron Works, which despite many difficulties has launched a new monthly all-out production program, has maintained an upward trend. Pig iron production has exceeded the quota by 23%, steel ingots by 37%, and steel materials by 49%. In November production of other than special steel, the production quotas were set at levels seemingly impossible. The excellent production record in topping these quotas is a result of the determination of the workers, who have been working in the spirit of the Special Attack Corps. Besides the production quotas set by the Munitions Ministry, the plant has its own. Though pig iron production fell 7% below the plant quota, the ingot output surpassed it by 19% and the steel materials by 35%. Moreover, in regard to the reclamation project which has been launched, the concerted efforts of tens of thousands of workers who have worked extra hours and utilized rest periods have resulted in the recovery of ... tons of iron in November, the first month of the drive. This far exceeds the showing of some mines having relatively poor grade ores.

(Tok. JO 12/11/44)

Ibaragi: Realizing that a lack of machine tools would hinder production, Shinichi Goto, who works in the Foundry Section Toolshop of the Japan Iron Works Plant, has worked out a device whereby worn out parts of chipping hammers can be refixed for use. Forty to fifty chipping hammers which had been discarded by the plant have been fixed and put to use again, thus boosting the production efficiency of the plant.

(Tok. JO 12/19/44)

... In spite of enemy air raids, the Kyushu plant of the Japan Iron Manufacturing Company has attained good results currently, reaching the allotted production grade for the past three months ending March 31. Results include pig iron at 97.6 percent of the allotment; 99.8 percent for (ingot?); and 92.3 percent for steel...

(Tok. E 4/12/45)

Japan Soda Special Steel Works

See IRON AND STEEL, Government, Munitions, 12/29/44

Japan Steel Tube Company

See IRON AND STEEL, Government, Munitions, 12/29/44

Jubota Iron And Machinery Works (Kubota Tekko)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

I R O N A N D S T E E L I N D U S T R I E S

C O R P O R A T I O N S A N D C O M P A N I E S

Kawasaki Heavy Industries

See IRON AND STEEL, Government, Munitions, 12/29/44

Kayaba Steel Works (Seiko)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

Kobe Steel Manufacturing Company

The Munitions Ministry, at this time, based upon the eleventh article of the Munitions Company Law, (merged the Kobe Steel Manufacturing Company and the Asano Cement Company, in order to maintain a cooperative relation). This is to secure mixing materials necessary at the Kobe Steel Manufacturing Company through ... of the factory, and the equipment of Asano Cement Company, in order to plan an increase of....capacity. Concerning its concrete substance, (Fuku) munitions superintendent (made a report).

(Tok. JH 4/5/45)

The Munitions Ministry has issued an order to the Kobe Steel Works and the Asano Cement Company to cooperate in order to attain high efficiency. Regarding the details, the Munitions Superintendent will issue instructions and directives. Also, the Munitions Ministry issued notification to the ... factory to exchange technological information in accordance with the Company Control Law.

(Tok. JH 4/6/45)

Mitsubishi Heavy Industries (Mitsubishi Juke)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

In the industrial circles, the Mitsubishi Industries Company, now playing a remarkable role in making munitions... has decided on an extraordinary shareholder meeting on Friday to double its capital with a merger with the subsidiary company, the Mitsubishi Machine Tool Company.

(Tok. E 4/20/45)

Mitsubishi Mining Company (Kogyo)

See GENERAL, Corporations, Decentralized and Underground Factories, 4/1/45

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

Mitsubishi Steel Company

See IRON AND STEEL, Government, Munitions, 12/29/44

Mitsui Company

Tokyo: With the aim of financing more positively the essential war-time industries, the Mitsui Company has decided to increase its capital to 500,000,000 yen from 300,449,500 yen, following an extraordinary general meeting of the share holders scheduled to be held on April 18. In order to increase its capital by 3,991,000, the new shares of 50 yen each will be issued, and consequently each share holder except the Mitsui family is...allowed one new share to each share which he owns and the remainder will be divided among the Mitsui family owners.

(Tok. E. 3/20/45)

I R O N A N D S T E E L I N D U S T R I E S
C O R P O R A T I O N S A N D C O M P A N I E S

Mitsui Company

The main office of the Mitsui Company, in order to strengthen the control and guidance of the enterprises within its organization, has decided to revise the setup of the governing body. This was decided upon at the Board of Directors' meeting yesterday. The list of changes will be given: Jiro Kyomori, Masatora Koike, and Saburo Kawashima, who were the representatives of directors, relinquished voluntarily their rights of representation, but decided to remain in the post of directors' councillors. Hisachi Matsumoto, Shuichi Kotachi, and Yugo Yanose have been appointed as the representatives of the regular managing directors. Following these changes, Sadashi Okamoto was promoted to chief of the managing bureau, and Ryokichi Fujisawa to chief of the personnel bureau.
(Tok. JH 4/20/45)

Mitsui Mining Company

See GENERAL, Corporations, Decentralized and Underground Factories
4/1/45

Nichia Steel Works (Nichia Seiko)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

Nippon Iron Manufacturing Company

It was learned that undisclosed iron works belonging to the Nippon Iron Manufacturing Company will receive an award from the Munitions Minister, Admiral Tejiro Toyada, for repairing big blast furnaces in record time. He said the mobilizing of all its employees and workers in the plants succeeded in completing repairs on the old furnaces in one month, breaking all previous records.
(Tok. E. 5/17/45)

Nippon Special Steel Tube Company

See IRON AND STEEL, Government Administration, 12/29/44)

Nippon Steel Refinery (Nippon Seiko-jo)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

Japan's steel production reached an unprecedented new high in the three months' period from Oct. to Dec., last year. Production results at the Kyushu plant of the Nippon Steel Works in the same period topped the quotas by a large margin in pig iron, steel, ... and steel plates. Especially remarkable was the production of special steel which is vitally needed for the increased output of aircraft. Production of this metal showed an amazing upward swing in the month of December, finally setting a record figure since the opening of the plant. This record is in excess of 6% over and above that of the previous month and represents an increase of 14 times that of the same time as the outbreak of the GEA war.
(Tok E. 1/6/45)

Nitto Refinery (Nitto Koko)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

Sumitomo Metal Industries

See IRON AND STEEL, Government, Munitions, 12/29/44

IRON AND STEEL INDUSTRIES

CORPORATIONS AND COMPANIES

Toyo Steel Products Company (Toyo Kozai Kabushiki Kaisha)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

Japan Steel Works Company

See IRON AND STEEL, Government, Munitions, 12/29/44

See MACHINERY, Labor, Student, 12/21/44

... On the Japanese home front the Japan Steel Works in Kyushu in an all out effort has overcome all unfavorable conditions to step up its production. The output in November 1944 showed an improvement over the record month of October, and surpassed the production goals of pig iron, leading the fields with 123% output. Also special steel, vitally needed for producing heavy war equipment, hit a new high in October. As the high rate of production continues to be maintained, even greater increase is forthcoming. The production goal of iron, exclusive of special steel, has been set by the Ministry of Munitions as the maximum capacity under the determination of the Japanese war workers to win the battle of production. Meanwhile a drive to collect scrap iron was launched in Kyushu and the workers in the iron industries sacrificed their days off and after working hours to take an active part in gathering scrap iron. The result was that in November, the first month of the drive, a huge tonnage of iron was collected.

(Shanghai E. 1/31/45)

The Kyushu plant of the Japan Steel Company succeeded in obtaining salt from sea water by utilizing the ... heat blown into the blasting furnace by blowers, and has started its special method of salt manufacturing industry. Students are now being employed in this production and are showing fine results with a possibility of producing two tons of salt daily.

(Tok. JH 5/1/45)

CONTROL ASSOCIATIONS

Steel Control Association

See IRON AND STEEL, Appliances, 11/3/44

To prepare the utilization of unused steel, the Steel (Sale) Control Company has newly set up a section provided with ... and announced the personnel of the new section on January 13th. It is recalled that the Steel Control Association established, some time ago, a section for crushing idle iron so as to increase the supply of scrap iron.

(Tok. E. 1/16/45)

In the Munitions Ministry, as Admiral Teijiro Toyoda, who was the former president of the Iron and Steel Control Association, was appointed Minister of Munitions, (Jikke) Watanabe, former chief of directors, has been appointed as his successor. The announcement was made today.

(Tok. JH 4/27/45)

Vice Admiral Teifiro Toyoda, former president of the Iron and Steel Control Association, having taken office as Munitions Minister, the ministry had been deliberating on the choice of a new president for the control association. On the recommendation of the nomination committee, it was decided to appoint Gisuki Watanabe to the post, and this appointment was made on April 27. For the time being, the position of managing director of the association will be held concurrently by Watanabe. Heretofore, the president of the Iron and

IRON AND STEEL INDUSTRIES

CONTROL ASSOCIATIONS

Steel Control Association

Steel Control Association has also been the president of the Japan Iron Works (Nippon Seitetsu), but at a stockholders' general meeting to be held on May 8, a new man will be determined for this post ...

(Tok. JO 4/30/45)

GOVERNMENT ADMINISTRATION

Munitions Ministry, Iron and Steel Bureau

The Munitions Ministry has obtained favorable results in maintaining the production of special steel since the outbreak of the Greater East Asia war. Especially noteworthy has been the progress made during the first half of this year. In recognition of the outstanding work of special steel-producing firms, the Munitions Ministry has awarded citations to 15 factories representing eleven steel companies. Minakawa, director of the Iron and Steel Bureau of the Munitions Ministry, awarded the citations to representatives of the steel companies at a ceremony held at 10:30 a.m., December 29, at the Munitions Ministry. Minakawa represented the Munitions Minister. The companies cited were the Nippon Special Steel Tube Company, Hitachi, Ltd., Mitsubishi Steel, Japan Iron Works, Japan Steel Works, Japan Soda Special Steel Works, Daido Steel Manufacturing Company, Japan Steel Tube Company, Sumitomo Metal Industries, and Kawasaki Heavy Industries.

(Tok. JO 12/29/44)

RESEARCH, INVENTION, DISCOVERY

Iron Sand

Sapporo: In view of the urgent demand for steel production, this city is planning the production of sponge iron from iron sand, through the utilization of waste heat from the coke furnaces. This iron sand is found in unlimited quantities in Hokkaido. The manufacture of a reducing crucible which can withstand both intense heat and quick cooling was recently perfected. In the near future, a conference will be held with regard to the selection of factories and the problems of technical supervisors.

(Tok. JO 11/14/44)

Matsuye: In Shimane Prefecture, iron sand for Izume lump ore is being collected by utilizing the farmers' leisure season. It has been decided to mobilize students and women to collect the iron sand at the mouths of the Kai Kando, Suzuma, Ko, and Takatsu Rivers where there are large quantities of it.

(Tok. JO 4/11/45)

Matsue: Plans are under way in Shimane Prefecture to mobilize women and children to scoop up iron sand from river and ocean bottoms. Ichizo Yamada, a resident in Asahi-machi of this city, recently invented a device to separate iron sand. The device is simple and can be operated and moved about by two people. It is controlled much in the same manner as a winnow. Approximately two tons of sand iron can be worked in an hour by this simple device. Up to now, only sand iron containing more than 25 percent iron content could be worked profitably. Mr Yamada hit upon the idea for this apparatus when he found iron sand clinging to a magnet in his garden. Production of this device will be undertaken on a wide scale in the near future.

(Tok. JO 5/1/45)

IRON AND STEEL INDUSTRIES

RESEARCH, INVENTION, DISCOVERY

New Iron Vein

Hokkaido: A magnificent vein of iron ore has been discovered in the Tokachi mountain range area in Hokkaido. . . .

(Tok. JO 2/8/45)

COLLECTION PROGRAM

In order to convert scrap iron in (damaged) areas into fighting strength, the Kwanto Munitions Superintendence is surveying the amount of scrap iron available by mobilizing persons with knowledge in this field. In line with this program, the scrap iron will be speedily converted for the manufacture of agricultural implements, thus contributing toward increased production of (agricultural implements?) as well as toward increased production of foodstuffs in agricultural villages.

(Tok. JH 4/25/45)

On May 6, the Yamagata Prefectural Agricultural Association dispatched its production increases volunteer corps (zoosan teishintaid) to the nation's capital. For the past ten days, the corps members have been collecting scrap iron from the ruins of Tokyo. Loading the trucks with the scrap iron so collected, the members drove the trucks to the station, from where the entire load was shipped to Yamagata Prefecture. This scrap iron will be used to make such tools as will be needed by the farmers. Thus, once again, the iron which has met the ravages of war is to serve the nation. . . .

(Tok JO 5/18/45)

The Wartime Scientific Technique Information Office has invited Colonel Ishimatsu, director of the Kwanto Munitions Superintendence Section, and other persons concerned to the Imperial Hotel at noon today to hold discussions in regard to the collection of iron, copper, nickel, and glass from war damaged areas. The discussions were held, and the Kwanto Munitions Superintendence Section will launch a full-scale drive to collect war materials from war damaged areas to restore them to war goods.

(Tok. JH 5/24/45)

Tokyo: War stricken Tokyo has become the world's largest mine, the "Yomiuri Hochi" pointed out today in a graphic feature article describing the reconstruction activities of the Tokyo Metropolis as rapidly moving ahead as a Phoenix, rising from the ruins and ashes left in the wake of the enemy's recent indiscriminate incendiary raids. Neighborhood groups have organized anti-raid shelters, housing household belongings and family. . . . With tons of scrap iron, copper and other metallic materials scattered about, war stricken Tokyo has become the world's largest mine. By constructing simple blasting furnaces at scattered places, these scraps of metal can be assembled and processed into pig and ingots. They can then be carted to ships which can carry them into larger plants where they can be made into weapons indispensable for waging war against the enemy invaders. These simple furnaces can easily be constructed in small underground plants.

(Tok. E. 6/4/45)

APPLIANCES

Japan Steel Tube Welding Control Association (Nippon Yoosetsu Kookan Toosei Kumiai)

The Japan Steel Tube Welding Control Association (Nippon Yoosetsu Kookan Toosei Kumiai) has been bending every effort to accelerate

IRON AND STEEL INDUSTRIES

APPLIANCES

Japan Steel Tube Welding Control Association (Nippon Yoosetsu Kookan Toosei Kumiai)

the mass production of steel tubing for the aircraft industry and has succeeded in gradually turning out needed products on a quantitative scale. In order to effect improvements in production technique, many plans have been drawn. As a further step, the control body will become a member of the Aircraft Industrial Association as the first control organization to take an active part in the work of the Aircraft Association. In line with its new activities, the steel tube organization held a meeting at 10:00 a.m., November 1, at which time the anniversary of the founding of the association was duly observed. The meeting was held in the GEA Hall. Attending were authorities of the Munitions Ministry and members of the Iron and Steel Control Association. Jiro Tachibana made a report on the progress of the organization, after which business was discussed. In the election of officers, the president's system was abolished and a chairman's system instituted. Yoshiaki Hatta, current president, assumed the chairmanship of the board of directors of the association. For the time being, no vice-chairman will be named. Michizo Kishi, president of the Kagaku Toodokai, was tentatively named director. The final approval of this nomination awaits Kishi's return from Manchukuo. (Tok. Jap. 11/3/44)

Sumitomo Metal Industries Company

...600 students in the 3rd, 4th and 5th grades of the Heian Middle School in Tokyo, as Patriotic Service Corps members of the school, are assigned to do factory work in their classrooms for a metal pipe manufacturing plant of the Sumitomo Metal Industries. (Tok. Jap. 2/10/45)

LABOR

...Since it has been deemed necessary to apply immediately the maximum limitation of industrial employment in all divisions of industries, the Iron Ore Bureau of the Munitions Ministry will start investigations of all the industries related to iron manufacturing as to their maximum employment limits. This will be done through the control associations, with March 15 as the deadline, so that data, together with previously compiled statistics, may be furnished the divisions of the iron manufacturing industries. The investigation will cover the following details: 1. The number of workers as of the end of December, 1944, in relation to the production goal. 2. The estimated number of workers to be increased or decreased owing to changes in the production plans. 3. Possible saving in manpower as a result of improved efficiency. 4. Maximum limit of workers hired for the month of January. 5. Ratio of women hired, maximum limit. 6. Minimum ratio of office personnel to laborers. 7. Ratio of technicians to ordinary workers. 8. Ratio of skilled workers to ordinary workers. (Tok. Jap. 2/1/45)

At a certain shop affiliated with the Fukushima Iron Works of Fukushima Prefecture, students from schools everywhere are carrying on with their work of striving for production increases through mass efforts. These students are setting an amazing attendance record of 90%. Such a record is due to the unceasing encouragement which they receive in the letters from their homes, as well as to the tender guidance offered them by the... Their letters from home average more than ten per day. Every single one of these letters is expressive of the sure-victory, which stimulates the students' labor services all the more. (Tok. Jap. 5/18/45)

L I G H T M E T A L S I N D U S T R I E S

CORPORATIONS AND COMPANIES

Asano Cement Works

See IRON AND STEEL, Corporations, Kobe Steel Works, 4/5 and 4/6/45.

Chichibu Cement Company

The Chichibu Cement Company recently succeeded in producing "ferro cement" with a 20% economy in consumption of coal, which is currently the greatest bottleneck in cement production. This saving in coal, it is believed, will contribute much towards rationalizing the cement industry. The new product, which is in the process of industrialization, is a cement with a high iron content and is produced through the mixture of a larger amount of alumina clay and oxidized steel than in ordinary cement during the baking process. Other characteristics of the new product include (the fact that it is) producible with present baking facilities of the cement industry; tensility is two to three times higher than ordinary cement and equal to or better than high grade cement; owing to its higher baking quality than ordinary cement, it is possible to bake 19 metric tons of ferro concrete in one hour, compared to only 15 metric tons of ordinary cement; baking at low temperature effects a 20% economy in coal consumption; cost is also reduced because of the mixture of a greater amount of the congealing ingredient of sand, up to 35%...possible, as compared to only 20% in the case of ordinary cement.

(Tok. Eng. 4/29/45)

Domestic Light Metals Manufacturing Company

The Domestic Light Metals Manufacturing Company's plant in Iwate Prefecture, using (fuku) alumina as a raw material, has overcome many obstacles and is now operating under a smooth production plan. The company has gained much confidence, using domestic raw materials for aluminum production. However, in order to assure greater productive capacity, it has been deemed necessary to adopt measures which will improve factory facilities and other aspects of production. It was decided at this time to enhance its production by reorganizing and strengthening some parts of the factory facilities. Therefore, while the reorganization of the company is in progress, plans have been made for the company's Toyama Prefecture electrolysis factory to take care of the electrolysis work of a plant of the Onoda Cement Company, using aluminite as raw material.

(Tok. Jap. 11/6/44)

The Iwate Prefecture plant of the Domestic Light Metals Company (Kokusan Keigin), one of the factories now using domestic ores, has succeeded in industrializing the sulphurous acid method of processing aluminite ore after two years of experimentation. This plant started on the production of the rough product, aluminum hydroxide, in April and, since the first part of August, has been putting out finished aluminum. Since last year, the (former) Commerce and Industry Ministry (and later the Munitions Ministry -- Domei) and the Domestic Light Metals Company had been carrying on a survey of aluminite deposits throughout the entire nation. The survey revealed that vast deposits of aluminite ore (a form of volcanic ash, suitable for processing by the sulphurous acid method -- Domei) were found in Tochigi, Nagano, Tottori, Miyazaki and Kagoshima Prefectures and in Hokkaido, as well as in Iwate Prefecture. These discoveries afford great hope to the production of aluminum. ...preparations are being pushed in Tottori for processing locally the ore found there. In Hokkaido, the various factors related to the production of aluminum, such as the volume of the ore deposit, aluminum content, solubility of ores, availability of coal, sulphur, iron sulphide, and transportation, are favorable and, therefore, the authorities concerned are

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CORPORATIONS AND COMPANIES

Domestic Light Metals Manufacturing Company

of the opinion that preparations should be pushed here also for processing locally. The aluminite in Hokkaido is found in layers about one meter thick, six kilometers wide and twenty kilometers long, lying in an east-west direction. The surface is covered mostly by woodlands or pasture ground, and mining conditions are excellent. The composition of the ores is 23 to 29% aluminum, 41 to 51% silicon and 8 to 10% iron oxide. (Tok. Jap. 11/30/44)

Ebara Factory

See LIGHT METALS, Collection and Production Programs, 5/22/45.

Hiroshima Tile Brick Distributing Company

Hiroshima: In view of the shortage of cement, which has become increasingly important as a strategic material as the war progresses, Takeshi Ogawa of the Hiroshima Tile Brick Distributing Company has been experimenting with a special substitute for cement. Recently, he succeeded in making an excellent substitute from slack taken from mines, such as coal slack and carbide slag. This new product requires virtually no heat in the processing and is said to be superior to the present day cement. As a result, quantity production will be started soon to ease the shortage of cement, which is urgently required in the munitions factories as well as for the construction of air raid shelters. (Tok. Jap. 1/29/45)

Isshufuku Metal Industry Development Company

See LIGHT METALS, Corporations, Tanaka Metals Industry, 1/5/45.

Iwaki Factory

See LIGHT METALS, Collection and Production Programs, 5/22/45.

Japan Mining Company

See LIGHT METALS, Corporations, Tanaka Metals Industry, 1/5/45.

Mitsubishi Metal Industry

See LIGHT METALS, Corporations, Tanaka Metals Industry, 1/4/45.

Nippon Aluminum Company

See MACHINERY, Control, Construction Machinery Control Association, 1/26/45.

Nippon Light Metals

See MACHINERY, Control, Construction Machinery Control Association, 1/26/45.

Onoda Cement Company

See LIGHT METALS, Corporations, Domestic Light Metals Manufacturing Company, 11/6/44.

Osaka Metal Company (Osaka Kinzoku)

See MISCELLANEOUS, Financing, Capitalization, 2/6/45.

L I G H T M E T A L S I N D U S T R I E S

CORPORATIONS AND COMPANIES

Sumitomo Metal Industries Company

See MISCELLANEOUS, Research, Progress and Awards, 12/5/44.

Tanaka Metals Industry

The Munitions Ministry has decided to award commendations to three companies -- namely, the Tanaka Metals Industry, the Nippon Industry (Wd) and the Mitsubishi Metal Industry -- which achieved excellent records in metal work with platinum, which was collected recently. These companies were given the awards by Munitions Minister Yoshida at 10:00 o'clock this morning. These three companies have not only exceeded the allotted goals by overcoming all difficulties in order to convert the platinum into fighting power, but have achieved outstanding records even in...and gold...

(Tok. Jap. 1/4/45)

The Munitions Ministry yesterday awarded letters of commendation to three metal refining companies for exceeding the goals set for refining of aluminum. Those honored were the Tanaka Metal Works, a refinery plant of Japan Mining Company and the Isshufuku Metal Industry Development Company. (Tok. Eng. 1/5/45)

Tohoku Mines

...The posts of the presidency and vice presidency of the Tohoku Mines are unofficially decided to be given to Kenkai Sugawara (Kuwabara), the present vice president of the corporation, and to (Sokobe) Takeuchi, formerly chief of the Superintendence Bureau of the Home Affairs Ministry, respectively. (Tok. Jap. 4/28/45)

CONTROL ASSOCIATIONS

Imperial Light Metals Control Company (Teikoku Keikinzoku Toosei Kaisha)

See LIGHT METALS, Control, Metals Industry Control Association, 2/21/45.

Metals Industry Control Association

With the expiration on January 14 of the term of (Hajime) Suzuki, president of the Metals Industry Control Association, the Munitions Ministry appointed Suekichi Nakagawa, head of the Furukawa Electrical Industries, as the new president, effective January 15.

(Tok. Jap. 1/15/45)

The Light Metals Control Association (Keikinzoku Toosei-kai) had been studying the matter of reorganization of its structure to suit the increase in light metal production. It was decided that a new structure would be put into effect from February 21, and simultaneously personnel shifts were announced. The outstanding features of this reorganization are as follows: In addition to the heretofore existing Business Affairs Bureau, a (Planning Bureau) will be formed. The second department (dainibu--Ed.) will be established within the Business Affairs Bureau and it will manage matters concerning raw materials and... As for (funds), the corporation will make loans to industrialists, but this method involves great complications. Hence, the Light Metals Control Association will temporarily pay them beforehand. In this way, it is necessary that the relationship between the light metals industrialists and the Light Metals Control Association be closer. Therefore, it was decided that Chief Miwa of the Light Metals Control Association will concurrently hold the office of

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CONTROL ASSOCIATIONS

Metals Industry Control Association

chairman of the Board of Directors of the Imperial Light Metals Control Company (Teikoku Keikinzoku Toosei Kaisha).

(Tok. Jap. 2/21/45)

Silver Control Association

See MISCELLANEOUS, Control, Scientific Industries Control Association, 3/8/45.

PROMOTING ASSOCIATIONS

Hokkaido Neighborhood Associations

The administration of the Hokkaido District assembled the representatives of business men who are engaged in enterprises such as manufacturing of water pipes, . . . , umbrella sheet metal, tinkering and . . . and held a discussion conference for the establishment of happier business atmosphere. As a result, it has been decided that each union of these enterprises should submit a draft plan, which has been formed with their sincere effort and responsibility, by either December 15 or December 20. Based upon these plans, it was decided that an excellent . . . structure will be established with close connection with the Neighborhood Associations in the entire Hokkaido.

(Tok. Jap. 12/2/44)

GOVERNMENT ADMINISTRATION

Local Mining Bureaus

The Mining Bureau for the Hokkaido District, in order to supervise the development of underground resources, established a branch office at Hakodate in July, 1944, and now, to make for further convenience in the supervision of the development of these underground resources, a . . . was newly constructed in the City of Hakodate.

(Tok. Jap. 2/13/45)

With the purpose of making the decisive war administration complete, the Munitions Ministry decided to resolutely regulate the papers sent from the various mines to the local mining bureaus and papers sent from the local mining bureaus to the Munitions Ministry. The ministerial order #20 of the Agriculture and Commerce Ministry was abolished today. By this, the various mines need not send in investigation reports which were sent to the chiefs of the local mining bureaus once a year.

(Tok. Jap. 3/2/45)

. . . Another step to strengthen the local administrative structure, in line with the principle of disposing of business on the spot, has been announced by the Munitions Ministry. A good deal of work belonging to the Non-ferrous Metals Bureau of the same ministry will be transferred to the local mining bureaus as of April 1. The business to be shifted to the regional authorities covers a wide range, extending over production, transportation, allocation of materials, and labor . . .

(Tok. Eng. 3/30/45)

The Munitions Ministry made a large-scale transfer of technician personnel in the mining administration, which is affiliated with works concerning the underground resources, to the local mining bureaus. This new system has been in force since April. However, accompanied by this transfer of technician personnel, the Munitions Ministry announced a reorganization of the administrative structure of local mining bureaus, effective May 1. This latest reorganization

L I G H T M E T A L S I N D U S T R I E S

GOVERNMENT ADMINISTRATION

Local Mining Bureaus

is an attempt to fully express and further promote the characteristic traits of the local mining bureaus, to let them play a part as leaders. Although the previously existing structure, which consisted of two divisions and six sections, will be continued as it is, the former General Affairs Division and the Superintendence Division will be renamed the General Affairs Division and the Production Division. The General Affairs Section, the Applications and Registrations Division, and the Labor Affairs Section in the General Affairs Division will be renamed the General Affairs Section, the Applications and Survey Section, and the Labor Service Affairs Section. On the other hand, the Facilities Section, the Mine Industry Survey Section, and the...Section of the Superintendence Division will be abolished, and these three sections will not be created under the Production Division uniformly throughout the nation, but will be created in accordance with the situations prevailing in each respective area. Incidentally, the personnel shift as the result of this reorganization of divisions and sections is scheduled to be announced in the near future. However, those who are in the status of hannin-kan (junior civil service grade - Ed.) are all transferred to the local mining bureaus. Furthermore, the Munitions Ministry has decided to take a step toward a drastic adjustment of administrative work related to each local mining bureau and each mine, with the intention of effecting a simplification of the administrative work under the decisive wartime. Among them, the Mine Industry Survey Section, which was established in accordance with regulation #20 of the local...ordinance and which is considered the most administrative work, is to be abolished, effective today. As a result, those who are engaged in the mining industry and who were formerly required to submit a survey report to the chief of the mining bureau in each respective area are no longer required to submit such a survey report. This action is expected to play a part in a drastic simplification of administrative affairs. (Tok. Jap. 5/1/45)

RESEARCH, INVENTION, DISCOVERY

Association for the Mobilization of Research

Professor Minoru Kamada of the Tokyo Imperial University has been entrusted with an investigation of a cement substitute mineral by the (Association) for the Mobilization of Research (Kenkyuudocin Kai). Recently he discovered 16 excellent and inexhaustible mineral veins, which can be used as substitute for cement, in the (mountains) of the (vicinity) of Tokyo. These veins are located in such areas that the mining of them and the transportation of the mined minerals will be extremely easy, and it is being anticipated that the important values of these veins will be displayed hereafter in the (construction) of air raid shelters and...roads.

(Tok. Jap. 12/7/44)

Tonoku Industrial Research Institute

Prospects of a large-scale extraction of fluorine from kochite ore, a peculiar silica ore with fluorite content, abundantly found in Nienuki District of Iwate Prefecture, has been made extremely promising because of the successful experiments conducted by the Tonoku Industrial Research Institute. The institute has been experimenting in recovery of fluorine from kochite ore and in the production of firebricks from resultant slag. Extraction of fluorine from this ore, whose main ingredients are silica and alumina with fluorine and chlorine content, is now easily possible through roasting of the ore, while cryolite, which is indispensable for refining aluminum,...

LIGHT METALS INDUSTRIES

RESEARCH, INVENTION, DISCOVERY

Tonoku Industrial Research Institute

obtained from the ore. On the other hand, roasted slag becomes one of the main materials for manufacture of (silmium), which is aluminum and silicon alloy, indispensable for manufacturing airplane engines. From clinker, high grade firebricks, indispensable in ore smelting, are also obtainable... (Tok. Eng. 4/7/45)

Wartime Institute for Natural Resources and Investigation

Wonderful nickel and chrome deposits were discovered in Kanabori Mountain in Orose, Saitama Prefecture. As you know, nickel and chrome are essential in making airplanes and the prefectural authorities immediately made a survey of these (deposits). They found them to be remarkable deposits with a (mineral content) of 50%, and the diggers are spiritedly swinging their picks with a view to making this ore useful as quickly as possible. (Tok. Jap. 11/24/44)

The latest report from Hokkaido reveals the fact that fresh strides are being taken by the nickel mines at Tokachi and Nemuro with the adoption of new methods of smelting nickel, which has enabled ten times increase in production. Academic research is also keeping pace with this progress in the technical field. The Natural Resource Research Laboratory in the Technological Board has been necessitated to strengthen the setup...by ever increasing activity. The laboratory has made a fresh start with the new nomination of the Wartime Institute for Natural Resources and Investigation. (Tok. Eng. 12/19/44)

COLLECTION AND PRODUCTION PROGRAMS

On the basis of the expansion program for light metal factories, the Munitions Ministry has decided to award a letter of commendation, in the name of the Munitions Minister, and dated May 20, to those who have shown an excellent record among the factories that took charge of the first... Furthermore, factories conforming to this will be commended, and are being selected by various munitions superintendence offices. Those factories which are to be commended are seven factories in the Kanto area, including the Ebara and Iwaki factories and the Mitsubishi Chemical Industry; four factories in the Tokai area, including the Mitsubishi Electric; seven factories in the Kinki area, including the Fujimoto Iron Works; and two factories in the Kyushu area, including the... (Tok. Jap. 5/22/45)

Aluminum

In answer to the inquiry regarding the change-over to alumina slate as a source of aluminum, Vice Minister Shiina replied that, since the transportation of bauxite from the Southern Regions has been lagging, the dependence on domestic ores has been increasing. With an eye to this situation, the construction of facilities to handle domestic ores has been under way. Some, already having been completed, are already in operation. Practically all technical problems have been solved and at present we are approaching the production goal. (Tok. Jap. 1/29/45)

The most urgent thing for our country is to ensure a supply of aluminum to be used for aircraft. Ever since the beginning of this year the government has been promoting and encouraging the exchange of aluminum coins (for paper), through Neighborhood Association...drives. In view of the recent progress of the war, the government has decided to strengthen further the exchange of aluminum coins, and a movement for this purpose will be carried out on a general scale in March and

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COLLECTION AND PRODUCTION PROGRAMS

Aluminum

April. Methods of collecting aluminum coins were decided at the Vice Ministers' meeting today and announced by the Finance Ministry. There is no special shortage now in the supply of raw materials for making aluminum to be used for aircraft, but the quality of aluminum and strength of the aluminum in the coins are also high. For that reason, it is the intention of the government to use the aluminum in the coins in mixing with the ordinary raw materials for making aluminum. In order to collect these aluminum goods, the government now is carrying out a study on five and ten sen paper money and a sen piece made of tin to be used by the Bank of Japan. Plans are now being formulated so that a general collection drive can be carried out in the next two months through banks, trust companies, insurance companies, financial organizations, Labor and Material (Control) Associations and Neighborhood Associations. Post offices, street cars and elevated electric train cars, and retail stores will also take part in collecting aluminum coins. Bank windows where exchange will be made will participate in this movement. The authorities look forward to a time when not a single aluminum monetary piece will remain in circulation and all of these coins will be contributed toward increasing the production of aircraft.

(Tok. Jap. 3/12/45)

...Those who will be required to contribute aluminum are factories under civilian ownership, commercial stores, commercial firms, banks, hotels and restaurants. This drive, beginning March 25, is aimed at collecting all aluminum ware or products made from aluminite...in all these establishments, with the exception of families in general. The places where aluminum must be contributed are the city, town and village offices in the locality where the contributor resides. These contributions are to be brought to these offices between 8:00 a.m. and 5:00 p.m. This collection drive is to be carried out on the basis of compulsory purchase by the government in accordance with the Mobilization Law. An order for compulsory contribution can be issued by the governor to the contributor, but the prefecture is appealing to the sincerity and patriotism of the people to the very end and desires that the people make an all-out effort in making the contributions.

(Tok. Jap. 3/20/45)

Aluminum is a raw material that must be had in the increased production of war planes. We have, in the past, frequently talked about our friends who have contributed to this cause. Our friends in Tottori Prefecture are helping in exchanging aluminum one sen, five sens and ten sens for paper money. It is reported that during the period from April 20 to May 19, higher school students, in a body, will assist in the collection drive for coins from homes, public offices, government buildings, and factories. With the aluminum coins collected by this assistance, a great quantity of planes will be made for Special Attack Corps which will undoubtedly instantly sink enemy war vessels.

(Tok. Jap. 4/29/45)

We requested through the newspapers the other day that you collect many ten cent and penny aluminum coins in order to produce as many special attack planes as possible -- the planes for the Special Attack Corps. As a result, our friends at the Kuriu Elementary School in Tochigi Prefecture decided to turn over to the government all the aluminum coins in Tochigi Prefecture for the use of the nation. Then, in their spare time from school, they decided to collect aluminum coins from the passengers while standing in front of the three stations -- Kiri, Shinkiri and Nishi Kiri -- by dividing the work among the three. These three persons at the

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COLLECTION AND PRODUCTION PROGRAMS

Aluminum

entrance of the station called out to the passengers, "All of you, please turn over to the government your aluminum coins in order to send to the front as many planes as possible," and exchanged aluminum coins passengers had on hand with tin coins and paper money they had in readiness. Within a short time, they collected aluminum coins amounting to from 12 to 13 yen, and turned them over to the city office. Incidentally, from tomorrow, tobacco stores in the entire country will change tin coins and paper money for aluminum coins.
(Tok. Jap. 5/19/45)

In Kagawa Prefecture, where the call for the collection of aluminum coins was answered, 80% of its goal has already been collected by neighborhood organizations and groups of the various districts. The remaining 20% will be collected from Navy Day to the end of the month, with the cooperation of the good pupils of the national school.
(Tok. Jap. 5/25/45)

Platinum

A nation-wide (emergency) collection of platinum, which has been under way since September 1, is steadily attaining results in various parts through the enthusiasm of the people. Seven prefectures already exceeding their goal are Chiba, Tochigi, Ishikawa, Okayama, (Kochi), Kagawa and Kumamoto. Tochigi Prefecture has collected 190%, nearly twice its quota, and Okayama Prefecture has collected (180%).
(Tok. Jap. 11/2/44)

The collection of platinum has already passed the initial goal in amount ever since September, with a fine record of 110% average for metropolis, districts, urban prefectures and prefectures throughout the nation. However, with only the amount of platinum so far collected, the prodigiously increased demand cannot possibly be met in full. The government has decided, therefore, to make a thorough-going collection of platinum, however little it may be. As such, the collection of platinum will be continued for another month, beginning today and lasting up to December 15. Moreover, a strict supervision will be maintained over the people who will hide platinum purposely, even during this extended period. A Vice Ministers' notification to this effect was transmitted to various local governors by the Home Affairs, the Justice and the Munitions Ministries. On the whole, the purchase of diamonds, too, terminated as of today. However, inasmuch as there are still many people who wish to turn over diamonds, and the consumption quantity of the aircraft and radio wave weapon fields is tremendous, the Munitions Ministry has decided to extend the purchase period for another month and will continue with the purchase of diamonds up to December 15, as in the past. A notification to this effect was transmitted to local governors, public welfare organizations and the Central Material Salvage Association.
(Tok. Jap. 11/15/44)

Inspired by the daring exploits of the Kamikaze Special Attack Corps, on the last day of the platinum drive, November 15, long queues of those offering their platinum formed before the windows of the purchasing offices from the early hours of the morning. On this day alone, 5,000 people responded to the vigorous street campaign of the members of the IRAA Youth Corps, who presented manly figures with their white headbands as they exhorted the people to offer their holdings of the white metal.
(Tok. Jap. 11/20/44)

Commendations were awarded to nine miners for their efforts to increase the output of iridosmine, or (sand) platinum, by the chief of

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COLLECTION AND PRODUCTION PROGRAMS

Platinum

the Hokkaido Mines Bureau. These nine miners, including Chosenese, played a leading role in checking the flow of the river in defiance of blizzard and bitter cold. (Tok. Eng. 1/16/45)

...Far more and much better aluminum is used in the one sen, five sen and ten sen aluminum coins used in Japan than that used in aluminum pans and lunch boxes. Therefore, they can be used immediately to make special attack planes. Thus, at the present time, aluminum coins are being withdrawn throughout the nation and exchanged for tin coins and currency. Only about one-half has been collected. About 100,000,000 pieces of aluminum coin were in circulation throughout the nation, but still more than 50,000,000 pieces are put away in our purses, as money, without being in airplanes. Please be on the watch, and if you come across even one aluminum coin take it to the bank or post office and change it for tin coins or currency. If you feel embarrassed going to the bank with just one sen aluminum coin, please send it to the man who is the head of the Neighborhood Association and he will change it for you. Thus, by asking you all to help with the collecting of aluminum coins, we conclude today's newspaper. (Tok. Jap. 5/16/45)

Silver

Silver collection will be staged throughout the nation, with the Finance Ministry acting as the nucleus in the central area and various metropolises, districts, urban prefectures and prefectures as the controlling bodies in localities. The Central Material Salvage Association, a corporation, will be in charge of the purchase. The association will form Purchase Corps, consisting of selected and reliable affiliated members, and dispatch them to make the purchase at various purchase places which will be selected by the respective metropolis, districts, urban prefectures and prefectures. You will have to take silver to these purchase places. You may take it in person or, in certain occasions, it may be collected by the Neighborhood Associations, the Village Associations, or (Name) Associations and turned over to the purchase places. In cases where it will be turned over en bloc by the Neighborhood Associations and such, a special precaution will be taken to avoid mistakes caused from handling articles belonging to many people. The method of purchase is: The amount of pure silver contained in silver manufactured goods and other articles to be brought in will be checked by...method and the prices, in accordance with the silver ingredients, will be paid promptly on the spot. The purchase prices are: Silver manufactured articles - 35 sen per momme (one momme is 0.1325 oz. - Trans.) of pure silver ingredients; ...metals or their equivalents - 17.55 sen per momme of pure silver ingredients. A special consideration is given to manufacturing (costs) in pricing silver manufactured articles. We buy anything that is made of silver. We also purchase souvenirs, such as old silver coins and foreign silver coins. Naturally, silver manufactured merchandise in the hands of businessmen, too, will be collected. Another corporation, the...Association, will be in charge of this collection and the preparation is now being made. The time for purchase differs throughout the nation, because of a problem involving the affiliated members. Roughly speaking, however, Hokkaido and respective prefectures in Tohoku, Hokuriku and Shikoku have already commenced purchasing. Other prefectures, like Tokyo, Osaka and Kyoto, are scheduled to begin requisitioning, for a period of one to two months, beginning November. The time will be announced by the respective urban prefectures on every occasion. At any rate, the purchase will be carried out under the principle of thorough-going

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Silver

collection in the shortest period of time. (We beg) your support for this movement, so that we, 100,000,000 people, may carry out vigorous attacks to repulse America and Britain.

(Tok. Jap. 11/10/44)

The campaign to collect silver, essential in the production of propeller axle ends, will be launched shortly.

(Tok. Jap. 11/20/44)

The movement for the collection of silver, carried out on a nationwide basis since October, already ended its first collection drive in 19 prefectures in the districts of Hokkaido, Tohoku, Hokuriku and Shikoku but, in view of the fact that the fighting has become increasingly fierce, the demand for silver to be used as material has become greater. For that reason, the Finance Ministry, jointly with the Munitions and Home Affairs Ministry and the Board of Information, has decided to strive toward the attainment of a collection goal by further strengthening the collection drive. In this connection, authorities of the Finance Ministry issued the following statement: "The objective of the strengthening of the silver collection drive will be to extend the period designated for the drive and to re-examine methods of collection. The one-month period of October, in particular, will be fixed as the all-Japan silver collection drive period and a drive will again be carried out in prefectures where the first drive has ended. Also, in prefectures where the collection drive is being carried out, the scope of the drive will be enlarged and the drive will be carried out with thorough and total mobilization, in order that the prefectural districts throughout the country will all be able to exceed the collection goal. Silver, considered as war material, is used for radio receivers on aircraft and electric communication equipment."

(Tok. Jap. 11/29/44)

The collection of silver is now under way throughout the nation. According to reports which reached the Finance Ministry recently, the rate of silver collection, as of December 25, is 57% of its goal. It cannot be said that the nation-wide record of 57% is necessarily a good one, since a considerable period has elapsed. The Finance Ministry has decided that the date of announcing the ...of the silver collection will be January 31 of next year. The Ministry also requested all prefectural governors to exert further efforts. There seems to be a considerable number of people who believe that various souvenirs...and rings are such small articles that they need not be turned over to the government. The Finance Ministry is requesting the people to banish such feelings of affection and turn over even a single silver article to serve in the fight.

(Tok. Jap. 12/30/44)

According to the Finance Ministry, which is the headquarters for silver mobilization, as of January 5, Nagano Prefecture has responded 100%, with Fukui Prefecture at 101%, Okayama Prefecture at 120%, and Toyama Prefecture at 130%, all having reached or surpassed the goal. Especially noticeable is Okayama Prefecture, which reached its goal within three weeks after the drive started.

(Tok. Jap. 1/8/45)

On January 19, the Japan Athletic Association held a donation ceremony of silver trophy cups at the association headquarters in Ochanomizu, Tokyo. The cups which were donated to the war effort numbered approximately 150 and included one weighing over 12 pounds (ikkan gohyakume) which had been given to the old Far Eastern Athletic Conference by

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COLLECTION AND PRODUCTION PROGRAMS

Silver

Emperor Taishoo, and which had been cherished by the association since its receipt. In all, there were 13 cups given by princes of the blood. The remainder of the cups, given by friendly and enemy donors alike, such as Vargas, the present Philippine Ambassador to Japan, the German Field Marshal, Hindenburg, and even the Prince of Wales, number, roughly, 140. (Tok. Jap. 1/19/45)

White Gold

A white gold donation drive, as one of the services in decisive war time, shows a growing improvement day by day. Records of donation results in November, which is the deadline month for the drive, show that drive quotas have been exceeded by a great margin in all local prefectures, municipal prefectures, districts and metropolitan areas, excepting seven local prefectures. Particularly, prefectures such as Okayama have exceeded the quota by three times. The results are truly outstanding, with six local prefectures having exceeded their quotas by two times. (Tok. Jap. 11/23/44)

Other Metals

The drive for the collection of metal objects in the City of Hamamatsu was started today. The aim of this drive is to make useful the metal objects, such as iron, copper, lead, (scrap iron), aluminum and aluminate, which are...in the houses, in order to increase the fighting power. As for the present collection method, special new prices will be paid in cash at the spot. The people of the City of Hamamatsu were asked to cooperate... (Tok. Jap. 2/28/45)

Wakayama: The total mobilization of metals from all the temples on Koya-san has been in progress. At this time, all the statues and lanterns in front of the temples as well as those inside, which were heretofore left as objects of art, will all be offered in order to help the war effort. (Tok. Jap. 3/18/45)

As the disposal of old iron and other metals in the city limits that have been destroyed by fire during the air raids has an extremely great relation with the rapid increased strengthening of the material fighting power, the Munitions Ministry has decided upon the essential points in the disposal of the old iron and other metals... Therefore, Munitions Vice Minister Takeuchi made a report at the Vice Chiefs' conference on the 19th, and decided upon the matter. The purpose of this decision is to quickly strengthen into fighting power the materials that have been left in the raided sectors. The Division of Munitions Administration and the army and navy facilities in each of the prefectural governments should cooperate and put this into effect in every city that has the leadership of the Local Administration Deliberative Association, and this is already under way. The value in buying and the means of estimation will be made separately to maintain the foremost (intention) that the owners will not receive any damages and losses.

(Tok. Jap. 3/22/45)

The Munitions Ministry has been studying ways and means of turning into fighting power the machinery, tools and other facilities belonging to factories and working places which have been damaged in air raids and earthquakes and which it had been decided would not be reconstructed. Today, the ministry announced the essential points in the purchase of these items to local governors, chiefs of munitions superintendence divisions and other interested parties. The main points of the notification follow: The machinery left in the damaged

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COLLECTION AND PRODUCTION PROGRAMS

Other Metals

factories and working places, which it has been decided will not be restored, will, as a rule, be purchased by the Industrial Equipment Enterprise owners' offer. However, those items judged to be scrap iron by local governors will be subjected to the application of the metal collection law, and free disposal of these items will be restricted accordingly. Of the facilities purchased by the enterprise, those deemed useless for diversion will be promptly turned over to the Metal Collection Control Corporation and used as a source of metal.
(Tok. Jap. 4/12/45)

A three-month drive to convert all idle materials in the home into war materials was concluded on May 31. The results were very favorable. In the two months of March and April, enough non-ferrous metals were collected which, if converted into money, would amount to 250,000,000 yen. The May report has not been made public but, if this result is added, the total is expected to amount to a tremendous figure.
(Tok. Jap. 6/2/45)

Mining of Granite

Mito: In Ibaragi Prefecture, granite deposits in Tsukuba and Kaba Mountains will be mined and used, in place of iron, for lathe bases and precision machinery bases. Governor Imai of Ibaragi organized a Council for Granite Supplies, and the stone-cutters of the prefecture are cooperating for the mass production of granite.
(Tok. Jap. 4/11/45)

METAL APPLIANCES

Nippon Aluminum Company

See MACHINERY, Control, Construction Machinery Control Association, 1/26/45.

Nippon Light Metals Company

See MACHINERY, Control, Construction Machinery Control Association, 1/26/45.

MACHINERY AND TOOL INDUSTRIES

CORPORATIONS AND COMPANIES

Agricultural Works Corporation

Aiming to utilize all the scrap iron in the bombed out areas for the manufacture of farm tools necessary for food production, an Agricultural Works Corporation has been created to build farm implement factories in the raid-hit areas. The inaugural ceremony of the corporation was held on the morning of May 10 at the former site of the Central Agricultural Association in Kanda Ward, Tokyo. Using fire-razed galvanized iron, buckets, shovels, plows, picks, wash basins, scythes, and hoes will be made. It is expected that 100,000 such items will be manufactured during May, June, and July.

(Tok. Jap. 5/10/45)

Hitachi Manufacturing Company

Since the second half of the fiscal year of 1943, the Munitions Ministry made an epoch-making policy for the control of air compressors, and the supervising of ... However, recently an outline for the extraordinary mobilization of air compressors was drafted, in order to improve the production capacity. An air compressor is a requisite machine for the loading and unloading of stuffs in air planes and ships and for the construction of underground factories and ore-crushing operations. ... The Munitions Ministry recently decided that the fifty horse-power and ten horse-power air compressors, which are being produced by the Hitachi Manufacturing Company, will be designated as standard types, and these standard type machines will be produced in all the affiliated factories.

(Tok. Jap. 3/2/45)

Japan Optical Instrument Company

See MISCELLANEOUS, Research, Awards, 12/5/44

Mitsubishi Machine Tool Company

See IRON AND STEEL, Corporations, Mitsubishi Heavy Industries Company
4/20/45

Mitsui Precision Machinery Company

See MISCELLANEOUS, Financing, Capitalization, 2/6/45

Stoker Manufacturing Company

See MISCELLANEOUS, Research, Awards, 12/5/44)

CONTROL ASSOCIATIONS

Construction Machinery Control Association

There are 15 kinds of new construction machinery that must be produced urgently in increased quantities, such as the ground-making stump uprooters. Assurances will be made doubly sure to secure electricity, labor, and material in the production thereof. Heretofore, the army and navy had been furnishing the necessary materials to the factories producing machinery for constructing air bases. Hereafter, in order to insure the smooth flow of materials for making construction machinery, it has been decided to have the army and navy transfer their control over the materials needed for the production of construction machinery to the Munitions Ministry, and to have the necessary materials issued by the Munitions Ministry directly through the Construction Machinery Control Association. Then, as regards the emergency repairs of the vital construction machinery, from the 1945 fiscal year on, common repair factories will be subject to its exclusive jurisdic-

MACHINERY AND TOOL INDUSTRIES

CONTROL ASSOCIATIONS

Construction Machinery Control Association

tion. Furthermore, aside from these repairs, firms engaged in the exclusive repairing of construction machinery will be invited to join the Construction Machinery Control Association. In this way, broken down or scrapped machinery will be made to contribute materially to the war strength. In order to get a firm hold on the production of light metals, two factors were held to be necessary; viz: the maximum utilization of existing efficiency, and the accelerated completion of apparatus and machinery used in the production of light metals. Most recent conditions show an extremely favorable trend, and future production is expected to proceed as well. The production of machinery and apparatus required for the production of light metals have been effected in the following manner: revolving about the emergency headquarters for the increased production of light metals established within the Munitions Ministry, the munitions leaders, and the control associations of both the light metals and industrial machinery, acting in unison, held frequent on-the-spot conferences to spur on production. The previously decided production fulfillment program, according to precedence, was effected as planned, and the Nippon Light Metals, Nippon Aluminum and the Showa Electro-Chemical Industries have all been allotted the requisite apparatus and machinery. This was made possible to a great degree by the setting of the order of precedence in the fulfillment program, and by the strong development of the on-the-spot conferences which gave impetus towards the success of the program, as well, by the concerted effort of the related factories in producing the necessary machinery. (Tok. Jap. 1/26/45)

Industrial Machinery Control Association

See MACHINERY, Control, Production Group Enterprise, 11/23/44;
Precision Machinery Control Association, 5/19/45;
See MACHINERY, Government, Machinery Material Distribution Company,
11/20/44

Japan Machinery and Equipment Control Association (Kikaikigu Toosei Kumiai)

See MACHINERY, Control Machinery Material Distribution Company,
11/20/44.

Precision Machinery Control Association (Seimitsu Kikai Tooseikai)

See MACHINERY, Control, Machinery Material Distribution Company 11/20/44

A survey made by the Precision Machinery Control Association of results attained in the production of ... machinery for the year of 1944 revealed that, through the use of precision machines, a production increase of from 50 to 60% resulted. This speaks for the effectiveness of these (highly developed machines).

(Tok. Jap. 11/30/44)

The question of whether it would be advisable to merge the Precision Tools Control Association (Seimitsu Kikai Tooseikai) with the Industrial Machinery Control Association (Sangyoo Kikai Tooseikai) had been under discussion for some time. It is reported, however, that the two bodies will not be combined and that, instead, a full time president of the Precision Tools Control Association will be chosen to direct the activities of the organization. Keen interest is being shown in the expected appointment of a president. It is argued that, during the present stage of the war, it would not be advantageous to change the present setup without sufficient purpose, and that to make

MACHINERY AND TOOL INDUSTRIES

CONTROL ASSOCIATIONS

Precision Machinery Control Association

efficient use of the already established setup is very important. Furthermore, changes in the government policy are indicated as a result of the changes in the chief portfolio of the Munitions Ministry and the directorship of the Machinery Bureau in the Ministry. The question of dissolving the Precision Tools Control Association was temporarily suspended, in view of the urgent need for production of machine tools for the manufacture of aircraft parts. Two policies regarding the functioning of the association are now being discussed, and one of the policies is expected to be enforced soon. They are: 1. Increased production will be attempted through granting more power to the branches of the Precision Tools Control Association. The branches will be commissioned to carry out on-the-spot production, and the activities of the headquarters will be reduced merely to carry on liaison work between it, the government offices and the branches. Of course, the headquarters will issue orders to the branches and will keep the power to control the operation of the branches, but the latter will do most of the work. In the phase of production, the number of superior branch factories in local areas will be restricted to about 10, and they will be established under a group enterprise setup. 2. Concentrated production will be attempted through concentrating local machine tool companies and making it possible for them to interchange materials and labor. Systematic and planned production will be enforced to the maximum. All orders will be issued by the Machinery Bureau. Technical guidance will also be provided by the bureau. In other words, supervision by the Machinery Bureau of the Munitions Ministry is demanded.

(Tok. Jap. 5/19/45)

Production Group Enterprise

The production of industrial machinery by the Production Group Enterprise is regulated by such outlines as the Forging Machine Planned Production Enforcement Outline, the Ordinary Machinery Supply and Demand Adjustment Enforcement Outline, and the Extensive-use Industrial Machinery Demand and Supply Adjustment Enforcement Outline. In addition to the manufacture of industrial machinery, the Group Enterprise has undertaken a project to make specially-ordered machinery, including parts. Already, facilities necessary for the manufacture of these machineries have been completed. A production policy for special orders to be followed by the Industrial Machinery Control Association members who belong to the Group Enterprise was formed recently, and it is hoped now that the manufacture of specially-ordered machinery will be assured as soon as possible. The machineries will be manufactured with surplus power of the Group Enterprise, based on the above-mentioned outlines. When special orders are made by the Industrial Machinery Control Association members who belong to the Group, they must first be authorized by the office in charge of munitions in that particular area and then submitted to the Group. The Group Enterprise has general control of supply, but the Group Office must inspect the details of all machinery concerned and economize on supply. Also, the manufacture of these products, which has been entrusted to the Group, will be under the general supervision of the office in charge of munitions in the area. Both the munitions office and the Group will be responsible for the delivery of these orders. Materials required in the manufacture of these machineries, such as iron alloy, steel, secondary products, coal, coke, lumber, rubber, oxygen, and carbide, are to be supplied by the government office making the order.

(Tok. Jap. 11/23/44)

MACHINERY AND TOOL INDUSTRIES

PROMOTING ASSOCIATIONS

Special Scientific Machinery Headquarters (Rinji Kagaku Kikai Honsu)

In order to encourage the manufacturing of scientific machinery, the Munitions Ministry has decided to establish the Special Scientific Machinery Headquarters (Rinji Kagaku Kikai Honsu--Ed). This office will formulate liaison policy with main emphasis on encouragement of production ability. (Tok. Jap. 12/24/44)

GOVERNMENT ADMINISTRATION

Machinery Material Distribution Company, Machinery Bureau Munitions Ministry

See MACHINERY, Control, Precision Machinery Control Association 5/19/45

Making raw materials available for manufacturing is, at present, the greatest problem, being a bottleneck especially in the production of essential machinery. As one method of breaking this bottleneck, the establishment of a Machinery Material Distribution Company is being contemplated, to be participated in by the Industrial Machinery, Precision Machinery, Electrical Machinery, Rolling Stock, and Motor Vehicles Control Companies (Sangyoo, Seimitsu, Denki, Sharyoo, Jidoosha Tooseikai), and the Japan Machinery and Equipment Control Association (Kikaikigu Toosei Kumiai). The first step to be undertaken in making materials available for the production of machinery is the unification of the purchasing, transportation, and the distribution of the materials. In order to make this possible, the enforcement of a unified control through the establishment of a single Machinery Material Distribution Company (kikaiyoo shizai haikyuu kaisha) is necessary. As to the method of organizing this distribution company, the present Machine Industry Council (Kikai Koogyoo Kyoogikai) should be dissolved and absorbed by the new company, and the Precision Machinery Material Company (Seiki Shizai Gaisha) should also be absorbed. The various machinery control organizations should then buy shares in the new company. Moreover, the business concerning materials now being handled by the Industrial Machinery, Rolling Stock, and various other control companies, should be taken over by the new company. Of course, this distribution company is to be an extra-bureau agency of the Machinery Bureau of the Munitions Ministry (Gunjushoo Kikai-kyoku) and, under the leadership and direction of the Machinery Bureau, it will bring together still closer the relationship among the stockholders -- the various machinery organizations. With the hope that it will bring about an unprecedented results in the production of critical machinery, the establishment of the new company is eagerly awaited as one measure for the prosecution of the decisive war. Consequently, the opinion is strong that the next election for chairmen and directors of the various control groups, whose terms will soon expire, should be postponed for the time being.

(Tok. Jap. 11/20/44)

RESEARCH, INVENTION, DISCOVERY

Tunnel Excavator

... Yamaoka, a town inventor, as a result of painstaking research, invented, at this time, a tunnel excavator. When under air raids, the removal of our essential plants underground and fortification of plants is considered a necessary emergency matter. This invention is truly a promising one. This tunnel excavator is shaped like a tank. It is a (smokeless) machine and its capability is excellent. It also can be used in construction of (air raid shelters) or in digging coal.

(Tok. Jap. 1/20/45)

MACHINERY AND TOOL INDUSTRIES

PRODUCTION PROGRAMS

An expansion program for the production of precision instruments has been designed for this year with five leading companies taking the lead. According to the plan, signal increase will be obtained this year in the production of these instruments which are indispensable for aircraft. (Tok. Eng. 1/5/45)

... It is revealed that production of machine tools during the first half of 1944, as compared with production in the corresponding period of 1942, witnessed an increase of 75% in value, 45% in the number of tools, and 20% in weight, making a 50% increase all-round. As a result of the shifting of skilled labor of first rate factories into second and third rate shops, production of machine tools per capita increased by 32% in value, and 13% in weight, making an all-round increase of 20% per capita. It is said that from the standpoint of management, working hours have been stepped up from 234 to 245 hours, which indicates the enthusiasm of the workers toward increasing production. It is added that the percentage of operation of equipment also increased by 30%. (Tok. Eng. 2/11/45)

LABOR

Technical Artists

The (Nikomi) technical artists are now contributing to the nation's war effort, in the field of munitions production. Their accurate perception and superior technique, tempered through long years of training in casting, lacquer, ceramics, and dying, have been usefully employed in the designing and making of precision machines and other arms. (Tok. Eng. 3/15/45)

Students

The students of the Naruse National School at Naruse, Naka County, Kanagawa Prefecture, have decided to help the farmers by repairing farm tools during their work shop hours. They built a foundry on the campus and have already begun repairing hoes, sickles, hammers, and (banno) and others. Since it is almost impossible to purchase and very difficult to repair these tools at this time, the farmers are really appreciating this deed on the part of the students. (Tok. Jap. 12/6/44)

North Kyushu: Under the year-round college student mobilization program, the Ninose Plant of the Japan Steel Works had placed 36 second year students of the Mining Engineering Department of the Ube Technical College in turbine and compressor fields, thus carrying out the policy of "producing while studying." However, there was still manpower shortage in the plant, so students were recruited. Twenty-five students applied on-the-spot for work within the factory and, although they are far from being comparable to factory hands in skill, the students are very earnest. They are giving their services on the production line in the excavation field, with responsible charge over five or six workers. (Tok. Jap. 12/21/44)

The Scientific Industries Control Association (Kagaku Koogyoo Tooseikai--Ed) decided to organize an Emergency Guidance Repair Unit, mainly consisting of mobilized students from physics and engineering schools. Whenever there is repair work to be done on technological machines, this unit will immediately be dispatched, in order to attain simultaneous benefit in both study and practice. On February 7, the inaugural ceremony of this unit was held. (Tok. Jap. 2/8/45)

PAPER INDUSTRY

CORPORATIONS AND COMPANIES

Oji Paper Manufacturing Company

See CORPORATIONS, Tohoku Alcohol Manufacturing Company 1/24/45.

See AIRCRAFT, Research, etc. 1/30/45

COLLECTIONS

The Tokyo metropolis, which has been ... from June as (a) measure to augment waste paper collection, will strengthen the (drive--trans) to collect old papers such as waste papers, old ... and old magazines from families at large, beginning December 1, replacing ... The method of collection, this time, is not to collect through the medium of associations or the neighborhood associations, but to have each family cooperate constructively and ... This method will be put into effect in major cities and their nearby (cities) for the present, and will gradually be extended (throughout) the (nation). ... Incidentally, the collection of toilet tissues and ... will be carried on as in the past. (Tok. Jap. 11/30/44)

Koofu: Students of the national schools of this prefecture have, so far, gathered 1,512 "kan" of "susuki", a kind of pampas grass, and turned it over to (censored) paper mill. The collection was almost four times the quota of 450 "kan" set for the prefecture. When all the "susuki" gathered, is brought to the collection center, it is expected that the quota will be topped five times. (Tok. Jap. 1/21/45)

DISTRIBUTION

Japan Stationery Control Corporation

Tokyo: To assure a sufficient stock of notebooks, pencils, papers, and other supplies for evacuated school students, the Agriculture and Commerce Ministry, yesterday, established the Japan Stationery Control Corporation, capitalized at 2,000,000 yen. The new corporation will distribute the school supplies through various distributing agencies in prefectures. The Japan Stationery Control Corporation will begin operating immediately, to meet the demand of the new school term which opens in April.

(Tok. Eng. 1/26/45)

LABOR

The higher grade pupils of the Higashi National School of Higashi Village, in Minami-tama-gun of Tokyo metropolis are, upon learning that the good men working at the village courthouse are being greatly inconvenienced in their work, due to lack of envelopes, offering their help in the making of envelopes. Through their efforts, some 10,000 envelopes have already been made.

(Tok. Jap. 2/25/45)

RUBBER INDUSTRY

CORPORATIONS AND COMPANIES

Nippon Rubber Company

See GENERAL, Government, Munitions, Designated Firms, 12/26/44.

Nitta Rubber Company

See GENERAL, Government, Munitions, Designated Firms 12/26/44.

CONTROL ASSOCIATIONS

Emergency Corps for the Management of Rubber (Rinji Gomu Kanri-han)

In view of the importance attached to the rubber policies, the Munitions Ministry organized the Emergency (Corps) for the Management of Rubber (Rinji Gomu Kanri-han--ED), composed of personnel from the (army's) aircraft weapons authorities, and the Munition Ministry. The first of the series of deliberative meetings was conducted on February 13. This Management Corps will, for the purpose of unification in the administration concerning rubber, undertake to bring about perfection in the liaison of the ... of the vital plans relative to rubber workmanship and the designs, therefore, with the various affiliated fields. (Tok. Jap. 2/13/45)

RESEARCH, INVENTION, DISCOVERY

Osaka Industrial Research Laboratory

Mr. Muro Murata, technical expert of the Osaka Industrial Research Laboratories of the Munitions Ministry, has recently succeeded in preparing a manufacturing process of a special kind of rubber for aeronautical use. This new process utilizes the peculiar characteristics of crude rubber and is coated by special process with a coat of synthetic rubber. The new rubber has been greatly improved in the ways of heat resistance, elasticity, and oil ... (Tok. Eng. 4/19/45)

Kyoto Imperial University

Professor Keiichi Shindo of the Kyoto Imperial University, who has been experimenting to develop a chemical to diffuse synthetic rubber, has succeeded in producing a very excellent organic substance of high oil-resistant content. This chemical will permit a 30% expansion in volume when diffused with synthetic rubber, without causing the rubber to lose any of its physical properties. According to experiments, the physical properties of synthetic rubber were, in no way, affected when a 30% expansion in volume of rubber was effected, but some loss was noted when the volume was increased by 50% by chemical action. Future experiments are expected to correct this. (Tok. Jap. 11/8/44)

IMPORTATION PROGRAMS

... The government has been taking an extraordinary measure for the importation of crude rubber to insure its supply from last year, by having the Army and Navy Ministries, the Transportation and Communications Ministry and the Munitions Ministry work in close coordination. As a result, we are able to replenish the supply in the home (warehouses) to the extent that we shall not be found wanting in the present demand. In the future too, we shall resort to all possible means of transportation to insure supply of crude rubber.... (Tok. Jap. 2/7/45)

TEXTILE INDUSTRIES

CORPORATIONS AND COMPANIES

Teikoku Textile Company

See MISCELLANEOUS, Financing, Capitalization 2/6/45.

CONTROL ASSOCIATIONS

Central Agricultural Association, Fiber Department (Choo Nookai Senyi Bu)

See TEXTILE, Government, Agricultural Administration Council 5/3/45

Cooperative Silk Yarn Shipping Association (Koosei Unshi Kumiai)

See TEXTILE, Government, Agricultural Administrative Council 5/3/45

Japan Silk Yarn Control Association (Nippon Sanshi Toosei Kaisha).

See TEXTILE, Government, Agricultural Administration Council 5/3/45.

Japan Cotton, ... and Staple Fiber Control Association

See GENERAL, Corporations, Decentralized and Underground Factories
4/1/45

PROMOTING ASSOCIATIONS

Dai Nippon Silk Yarn Association

Prince Yan-in, over-all president of the Dai-Nippon Silk Yarn Association, summoned Mr. Gosuke Imai, president of the association, to his villa residence in Odawara today and granted a gracious message to encourage increased production of silk yarn, thereby urging all silk yarn producers throughout the nation to rise to action. ... "Our silk yarn is immensely important as munitions material. The members and those concerned shall further tax their originality and ingenuity and thereby increase the production of silk yarn and shall further (concentrate their efforts) toward ..., resolving thus to contribute toward the consummation of the sacred war."
(Tok. Jap. 1/27/45)

GOVERNMENT ADMINISTRATION

Agricultural Administration Council

By simplifying and strengthening the system of control and leadership, the structure of the silk reeling industry should be revised, with the stress laid on the one point of making it possible for the industry to put its entire strength behind the attainment of the goal of an annual production of 50,000,000 "kan". This argument sprang up as soon as the true situation of the stagnation of last year's cocoon production was brought to light, and its enactment has been strongly demanded by the leaders of the Agricultural Administration Council (Nooseikai), which is composed of members of village assemblies. In line with the concrete movement for the actual increase of production, the unification of the three groups concerned - the fiber department of the Central Agricultural Association (choo nookai senyi bu), the Cooperative Silk Yarn Shipping Association (kyoosei unshi kumiai), which is organized among the silk reeling companies of Japan, and the Japan Silk Yarn Control Association (Nippon sanshi tooseigaisha) - is now being considered for the purpose of establishing a consistent system and structure covering all processes in the manufacture of silk, from the silkworm egg stage to raw silk. In order to accomplish this, a movement is being conducted at present, of which the details are not revealed. Since this new setup lacks

TEXTILE INDUSTRIES

GOVERNMENT ADMINISTRATION

Agricultural Administration Council

any progressive control mechanism, it may tend to contribute toward aggravating the struggle for supremacy among the various parties concerned, resulting in inviting results other than those originally desired. Therefore, what the leading members of the Agricultural Administration Council desire is to increase the production of cocoons in the first place, and for the time being, to establish a single control setup, in order to realize an integrated increase.

(Tok. Jap. 5/3/45)

RESEARCH, INVENTION, DISCOVERY

You people must also know well the heads of the horse-tail plants, ... which can be seen in the fields during the autumn and winter. It has now become known that the heads of these horse-tail plants are being used for aviation life belts (ukii--Ed) to protect the lives of our valiant fighters when our wild eagles are forced down in the water because of inclement weather or motor trouble. With some 3,000 heads of this horse-tail plant, one aviation life belt can be manufactured. The authorities have decided to begin a drive to gather the heads of this plant (throughout the nation).

(Tok. Jap. 11/19/44)

The students of the ... National School in ... have started the collection of the fruits of the poplar trees. The fuzz on the fruits of the poplar trees does not absorb water for about two hours after immersing in water, and is suited very much for the inner linings of our fliers' life jackets. The poplar tree grows in abundance in the northern part of the ... Prefecture and the students are going to commence active collection of the fruit. The cotton-like fuzz can be removed easily from the fruit by pounding on it. It can be obtained by anyone. It is said that about 500 ('me') of this "cotton" can be obtained from one tree. Those of you who live near poplar trees, please collect them as much as you can.

(Tok. Jap. 5/31/45)

Makita Chemical Research Institute

Gunma: Soichi Makita, chief of the Makita Chemican Research Institute in Suehiro-cho, Kirui City, has developed a method of processing silk without the use of soap or soda, by making use of the water of mineral springs. Silk is now an essential raw material for the manufacture of weapons and clothing for the workers of the nation. Makita has been experimenting with the process for some time. He discovered that a spring in the western part of the prefecture contained an excellent solution for processing silk.

(Tok. Jap. 2/2/45)

COLLECTION AND PRODUCTION PROGRAMS

With the progress of the war, the demand for cotton as a source of gun powder has increased tremendously. It was therefore decided, at a Vice-Ministers meeting, to open a drive for the collection of old cotton for gun powder use. As this cotton will be used to make gun powder, which in turn will be used to sink enemy warships, a huge contribution from the people is expected. Most of this old cotton is expected to come from the cushions used in the various cafes, rendezvous rooms, restaurants, banquet rooms and halls, theaters, and hotels, as well as shrines, temples, churches, and other religious organizations.

(Tok. Jap. 11/18/44)

TEXTILE INDUSTRIES

COLLECTION AND PRODUCTION PROGRAMS

Li Shing-po, Shanghai textile industry magnate, said: "... Of twelve point seven million spindles in Japan, only three point five million spindles are left, since the rest has been melted down to be used as scrap iron under the so-called "readjustment of industry." Thus, textile production in Japan now can only supply the needs of Japan, Korea, and Formosa. The Japanese also intended to scrap all textile machinery in occupied territories, but it was somehow delayed."
(Yenan 12/26/44)

... With regard to a self-sustaining condition in textiles, the production will decrease considerably, due to the material and transportation situation, so we plan to take thoroughgoing steps in mobilizing the textile resources in the homeland and placing the factories on a government basis. ...
(Tok. Jap. 5/14/45)

Niigata: During recess periods, the students of the Kunigami National School, at the foot of the mountain, are going into the hills to cut down wisteria vines which grow wild. Wisteria vines are the great enemy of forests as they hamper the growth of trees. However, these vines can become very useful once they are made into working clothes of students, and at a time when there is a shortage of textile materials, what the students are doing means killing two birds with one stone. By the end of this month, 600 "kans" of vine is expected to be gathered and turned over to the prefectural government. For these, the prefectural office will distribute 100 rolls (about 12 yards a roll) of material to make working clothes. It is said that 60% of the goal set has already been achieved.
(Tok. Jap. 5/21/45)

MISCELLANEOUS INDUSTRIES

CORPORATIONS AND COMPANIES

CONVERTED FACTORIES

Mashiko-yaki Pottery

Utsunomiya: The Mashiko-yaki (Mashiko -- brand of pottery-Trans.) industry, a specialized industry of Mashiko-machi, Haga-gun, Tochigi Prefecture, underwent a readjustment of enterprise last December. With the establishment of the Control Association, the industry changed over from the manufacture of toys to the production of daily necessities. The industry is supplying the munitions factories, as well as the homes with its products. Recently, several pottery works, under the direct supervision of the Munitions Ministry, were reopened and all the Mashiko-yaki workers, from the furnace employees on up, are laboring cooperatively in their new field.
(Tok. Jap. 1/29/45)

Fuji Manufacturing Company

See GENERAL, Government Administration, Decentralized and Underground Factories 11/8/44.

Nippon-Minami Industrial Corporation

Keizo Seki, director of the Nippon Minami Industrial Corporation, was chosen as auditor to succeed the post left vacant by the death of Keijiro Hori.
(Tok. Jap. 2/27/45)

Oriental Development Company

... The Home Ministry made the following appointments: Ryuichi Ikebe, vice-president of the Oriental Development Company, to become the new president. Hideo Matsukuma, former vice-minister of the Finance Ministry, to become vice-president of the company.
(Tok. Jap. 3/13/45)

Shinagawa White Brick Company (Hakurenga)

See MISCELLANEOUS, Financing, Capitalization 2/6/45.

Tohoku Development Company

... Vice President Mikine Kuwabara of the Tohoku Development Company has been promoted to president of that firm, to fill the vacancy left by Takeo Kawagoe. This was announced on the same day by the Cabinet.
(Tok. Jap. 5/1/45)

CONTROL ASSOCIATIONS

Scientific Industries Control Association (Kagaku Kyoogyoo)

Plans have been under way by the government to accord improvements to the effective administration of the various control associations, through the (coming) Diet. In accordance with this (governmental) policy, the Munitions Ministry has decided to merge the (Silver) Control Association into the Scientific Industries Control Association (Kagaku Kyoogyoo--Ed), with the object of (unifying) the administration of the scientific industries. The Munitions Ministry, therefore, issued orders for the (disbanding) of the (Silver) Control Association.
(Tok. Jap. 3/8/45)

M I S C E L L A N E O U S I N D U S T R I E S

FINANCING ARRANGEMENTS

Capitalization

Tokyo: Numerous influential companies have lately increased their capital, and it appears that this trend will continue for a while. Some leading companies which have already announced their capital increase are as follows: Toyo Steel Products Company (Toyo kozai kabushiki kaisha), Mitsubishi (Kogyo) Mining, Tokyo-Shibaura Electric Company, Uraga Dock Company, Hakodate Dock Company, Nippon Carbon Company, Oki Electric Company, Teikoku Textile Company, Jubota Iron and Machinery Works (Kubota tekko), Mitsui Precision Machinery Company (Mitsui seiko), Nichi-a Steel Works (Nichia seiko), Osaka Metal Company (Osaka kinzoku), and Dai-Nippon Paint Company (Dai-Nippon toryo). Next, companies which are preparing to increase capital are as follows: Ishikawajima Shipbuilding Company (Ishikawajima zoosen), Dai-Nippon Armament Company (Dai-Nippon heiki), (Fujietsu) Steel Materials Company (kozai), Kayaba Steel Works (seiko), and Nippon Steel Refinery (Nippon seiko-jo). Mitsubishi Heavy Industries (Mitsubishi juke), Hokkaido Colliery and Steamship Company (Hokkaido tanko kisen kabushiki kaisha), Nitto Refinery (Nitto koko), Shinagawa White Brick Company (Hokurenga) are also expected to increase their capital. The above companies are doing highly essential war work. As these companies are all producing war materials, the authorities are permitting them to increase capital to stimulate production.

(Tok. Jap. 2/6/45)

... As a result of the unprecedented increase of the capitalization of member companies, the liabilities of the parent konzerns, such as the Sumitomo, Mitsui, and Mitsubishi, have climbed, and borrowings have increased accordingly. In other words, the borrowings of the parent company of the Mitsui, Mitsubishi, and Sumitomo are 536,000,000 yen, 136,000,000 yen, and 275,000,000 yen respectively, as against a paid up capital of 298,000,000 yen, 240,000,000 yen, and 150,000,000 yen respectively. These figures show the Mitsui and Sumitomo borrowings to be almost twice their paid up capital, while those of Mitsubishi is not more than 56% of her paid up capital aggregate. These borrowings, which show such a steep rise, are dependent on the national treasury funds. ... a greater part of this has been taken care of through the issue of securities, but these alone cannot meet the demands. The Mitsui securities stand at 3 times her capitalization, or 935,000,000 yen; the Mitsubishi's at twice, or 507,000,000 yen, and those for Sumitomo are three times her former figure of 150,000,000 yen, or 397,000,000 yen. Since the beginning of this year, large companies have increased their capitalization. In other words, industrial capitalization for this year is 13,000,000 yen, or twice that of last year's 6,000,000 yen. From this, it appears that the various companies are carrying out a program of capitalization increase. All member firms of these three konzerns are vitally important to the times; they are debtor companies as well, due to rapid expansion plans. Furthermore, their set-up and credit reputation have facilitated borrowings. Moreover, they are pressed with a greater necessity to increase capitalizations in order to meet the needs of rapid expansion, as well as to repay borrowings, which have greatly increased of late. Furthermore, the liabilities of the controlling konzerns, which are big stockholders and which are about to announce capitalization increases, are about to take a further upward trend. In order to gain funds for the increases in the paid up capital of member firms, new borrowings must be made, or the capitalization of the parent konzerns themselves be increased. But it appears that, at this time, the main konzerns are endeavoring to decrease their liabilities through the disposal of stocks on hand, and at the same time, strengthen the financial independence of member companies.

(Tok. Jap. 2/26/45)

M I S C E L L A N E O U S I N D U S T R I E S

RESEARCH, INVENTION, DISCOVERY

Progress and Awards

Tokyo: Assurance that Japan is fully capable of becoming self-sufficient in vital war resources, which is absolutely necessary for defense of the Japanese empire in the present critical war period, was given by Lt. General Reikichi Tada, director general of the Science Mobilization Association, in an article in the Heavy Industry edition of Domei Commercial Service. Tada pointed out that with the development of scientific warfare, stress is being laid on the use of synthetic fuel to replace fuel obtained from natural resources, in order to meet the requirements of high powered weapons. He said that rocket bombs, such as the V-1 and the V-2, which excel heavy shells in (effectiveness), employ a new motive power which is now about to replace high grade natural fuel. (sic) Pointing out, in addition, that gasoline to propel planes is being replaced by rocket propelled aircraft, Tada declared that gasoline is being ousted from its position as king of fuel for airplanes. ... Were Japan lacking in petroleum, she could produce oil from the liquification of coal, while from potatoes can be obtained buthanol and alcohol to be used as aircraft fuel. Even if Japan were deprived of the oil resources in the Southern Regions, she would be able to produce a substitute fuel from the 2,700,000,000 kand of potatoes (one kan equals 3.75 kilograms -- Ed) scheduled to be raised during this current year, he asserted. Tada went on to reveal that rocket propelled aircraft use synthetic fuel entirely and surpass gasoline driven aircraft of the highest degree in performance. Pine-root oil as fuel and lubricating oil for aircraft is now appearing in quantities to make Japan self-sufficient. If fuel and lubricating oil can be synthetically produced, there is no need whatever of imitating natural resources, but what is most scientifically and ideally suitable for our needs should be created. Tada said it is because we imitate Anglo-American technology that we find ourselves hard pressed by the lack of resources within our own country. Tada recalled that when the importing of bauxite from the Southern Regions became difficult, Japanese ingenuity was put into play and a process for smelting the rich deposits of alum found in the Japanese homeland was developed. Japan produced synthetic resin, which made possible the production of high grade wooden aircraft, and is useful also in the construction of ships, Thus it is possible that it will replace aluminum as the most essential raw material for the construction of planes. Thin plate of special steel is about to be utilized on the bodies of large, high performance aircraft. When Japan felt a shortage of iron imported from the Asiatic continent, a new process was developed for smelting the low-grade brown iron, which is abundant throughout Japan, using hydro-electric power. When shortage of coal was felt, Japan produced a special steel to effect economy in the use of ordinary steel. ... Japan possesses not only an ample supply of hydro-electric power, owing to her natural features, but also sufficient quantities of all the 80 odd elements. If Japanese science succeeds in utilizing these elements in the production of high-grade synthetic products, Japan will be able to surpass even Anglo-America, who boasts of sheer quantitative superiority. (Tok. Eng. 2/16/45)

The Board of Technology, on December 8, will grant its second awards to those scientists who have contributed meritorious service to scientific research. The awarding ceremony will be held in the GEA Hall. Cash awards of 10,000 yen will accompany the letters of commendation. The Board, on December 5, made the following announcement: "The names of 530 candidates have been submitted by the respective ministries and scientific organizations, and 62 persons,

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representing 16 fields of science, have been selected by a temporary investigation committee, comprising of 30 authorities. The committee, which made the decisions after careful deliberations, is headed by Reikichi Tada, chairman of the Scientific Mobilization Council. The following are the outstanding recipients: 1. Improvement on periscope: Shizuma Ashida and one other of the Japan Optical Industry Company (Nippon Koogaku Koogyoo Kabushiki Kaisha). 2. Two-stage feeder stoker: Miyoishi Sotokawa of the Stoker Manufacturing Company (Enshoohoo Kikanseizoo Kaisha). 3. Manufacturing and designing of special machine tools for airplane parts: Takeshi Numazu and three others of the Nakajima Airplane Company. (Nakajima Hikoo Kaisha). 4. Research on radio altimeter: Masaji Hoshiai and 18 others of the third section of the Japanese Scientific Advancement Society (Nippon Gakujitsu Shinkookai). 5. Research and industrialization of porcelain ignition tube for aircraft: Fujisaku Yoshioka and two others of the Hidachi Manufacturing Company (Hidachi Seisakusho). 6. Outstanding improvements on shipbuilding capacity: Shuuzoo Rokuoka of the Harima Shipbuilding Company. 7. Research on electric mineral prospecting: Mosaku Iwasa of the Society for Prospecting Minerals by the Electrical Method (Denkitankoo Kyookai). 8. Basic research on vacuum tubes and practical production: Eizaburoo Nishihori of the Tokyo Shibaura Electric Works (Tokyo Shibaura Denki Kaisha). 9. Research and its application to production and usage of special pigments: Terutaroo Ogata of the Physico-Chemical Research Institute (Rikagaku Kenkyusho). 10. Research on sensitivity of materials with high-retaining property of ultra red rays: Tatsusuke Nishimura and four others of the Konishi Roku Photo Industry Company. 11. New steel production method: Mitsuji Kondo and one other of the (Eishon Koojo). 12. Large castings of light metal alloys: Tachiroo Konokogi of the Sumitomo Metal Industries. 13. Development of high pressure pressing of light metal alloys: Masao Ito of the Japan Iron Works. ... 16. Research on oxidation of ethylene and its application: Goo Okamoto, professor of physics of the Hokkaido Imperial University, and one other. (Tok. Jap. 12/5/44)

Bamboo Industrial Company

Fukuoka Prefecture: The Bamboo Industrial Company in the city of Fukuoka, in looking toward the conversion of the rich resources of the bamboo mountains into a fighting power, with bamboo being termed as the special product of our country, has been immersed in the research on blackbamboo for the past three years, and has finally succeeded at this time. Now, when bamboo is softened up by special kinds of chemicals and then pressed together into a thin layer of plate, it will become harder than a plate made of steel and will be quite useful in a great number of ways. This research is now under the (direction) of the munitions factories and the (demands by the government have now been met). Therefore, the production of these plates is now expected in great quantities. (Tok. Jap. 3/11/45)

Buyoo Salt Industry Association of Tokuyama.

See CHEMICAL, Research, etc., 3/7/45.

Dai Nippon Beer Company

... The Dai Nippon Beer Company's scientific research laboratory, ... has found a way to make edible whiskey and beer--that is, to make whiskey and beer in a solid form. Solidified amyl-alcohol has been perfected in a factory in Osaka. By using the solidified alcohol in place of hops and adding grape juice and succinic acid, an excellent

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RESEARCH, INVENTION, DISCOVERY

Dai Nippon Beer Company

grade of sake is obtained. Edible whiskey can also be made in the same manner. ... Yeast for making ready-made beer has also been perfected. The beer yeast cake is sent to the front and then mixed with water. This is so that the soldiers at the front may enjoy liquid beer. To make this yeast cake, sugar, millet-jelly and hops are mixed together and formed into the size of a caramel candy, and then yeast is added to it. When this combination is dissolved in carbonated water, beer palatable as that made at home can be had in 24 hours. It is fixed so that beer can be made without trouble, even in a trench. This was perfected in a factory in Tokyo.

(Tok. Jap. 2/9/45)

Japan Light Rocks Joint-Stock Company (Nippon Keisa Koogyoo Kabushiki Kaisha)

White sand (shira suna), which is thrown up along the entire coastal region of Fukushima Prefecture, facing the Pacific Ocean, which had been left as it was until the present, and not considered (for any type of utilization), has recently made its debut in our fighting industrial encampments as a glass polisher. ... Therefore, the Japan Light-Rocks Joint-Stock Company (Nippon Keisa Koogyoo Kabushiki Kaisha) and other prefectural powerful companies immediately (industrialized) this, and at the present time, some 30 to 50 tons of this white sand are being sent to the glass factories each day.

(Tok. Jap. 1/23/45)

Joint Salt Industry Association in Miya

... Technician Tokihiro Kondo of the Joint Salt Industry Association in Miya in Tokushima Prefecture, has recently succeeded in production of (sutoronchumu--ph.), which is a requisite for the production of electrical weapons, from salt. In short, when salt is refined, a deposit called ... will be produced. Technician Kondo discovered that (sutoronchumi) can be extracted from this deposit. The central laboratory of the Monopoly Bureau has taken an immediate step to devote the fullest effort for the production of (sutoronochumu--ph.) by sending instructors to the salt associations throughout the nation.

(Tok. Jap. 3/30/45)

Konishi Ruku Photo Industry Company

See MISCELLANEOUS, Research, etc., 12/5/44

Office of Construction Research (Kenchiku Kenkyuushitsu)

A wartime model prefabricated shack has been completed by the Office of Construction Research (Kenchiku Kenkyuushitsu--Ed) of the Finance Ministry. With the method used, even a child can construct it, from foundation work through to the final assembly, with the (assistance) of just one carpenter. Mass production of the (materials) is ideally suitable. Construction of the flooring has been greatly simplified, while bamboo is substituted for roofing material. When these units are lined up, they become tenement-units, while, when the height is increased, the units will serve as factory buildings.

(Tok. Jap. 12/19/44)

Osaka Industrial Research Laboratory

Bullet proof glass has been made by pressing together more than 10 sheets of glass with a cohesive agent, but the experience has been that unless the sheets of glass are exceptionally clear, the product

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Osaka Industrial Research Laboratory

is likely to be opaque. As imperfect bullet proof glass contributes to the fatigue of the crews manning the planes and also endangers their lives, it has been of utmost importance that improvements be made. Dr. Tei Takamatsu, head of the Osaka Industrial Research Laboratory of the Munitions Ministry, and his co-workers have, as a result of their experiments, perfected an excellent glass.

(Tok. Jap. 11/27/44)

Sendai Region Salt Monopoly Bureau

... With hope of encouraging further the production of (ground) salt, the Sendai Region Salt Monopoly Bureau recently constructed a model salt bed at (Wakanoha) Village in Oshika-gun to conduct experiments in salt making. At ..., a great success was scored when salt with a (density) of 17 (degrees), was produced. Again it was discovered that from 12 to 15 kilograms of table salt was obtainable--enough salt for the yearly need of 21 persons, through the following process: first, old ropes were wrapped around bamboo poles having a circumference of from two to three inches. Second, these were then hung in "sudare" fashion to dry. ("Sudare" is a Japanese shade, usually of bamboo--Ed). ..

(Tok. Jap. 5/18/45)

Tokyo Defense Bureau

The Defense Bureau of the Tokyo Metropolis, which had been studying the problem of the residence of the people who will be remaining in the Tokyo metropolis in the future as workers, has drawn up the first plan after studying and ... the underground or semi-underground houses as non-elaborate residences that can withstand fire and the concussion of bombs, and which can be built with a minimum of material. These houses were named the "Tokyo Metropolis Shelter Residences" (Tokyo Goosha--Ed) and the bureau will finally launch positively into the enterprise and realization of the houses for the citizens of the metropolis. There are various models of the shelter residences. However, the characteristic of the houses lies in the fact that they all utilize the ground. Firstly, in the underground shelter residences, there are the underground and the horizontal cave types. These are both ideal from the standpoint of withstanding fire and bomb concussion, but are not suited for popular adoption as residences, due to the limitations wrought by the problem of the soil of the metropolis involved and ... Secondly, the semi-underground shelter residence has far greater resistance against fire and the bomb concussion, as compared to surface houses. It also has the advantage over the underground houses in ... This semi-underground shelter residence is recommended for general adoption for these reasons. The smaller the shelter residences, the more advantageous they are from the standpoint of air defense. Even the largest of the houses, therefore, is only one room of six joo (or six mat room: one mat is roughly six by three feet--Ed) with dirt floors of approximately one tsubo (one tsubo is about six feet square--Ed). In the smaller ones, there are four and one half joo type and the three joo type. Because it is almost impossible to secure new materials such as lumber and nails to be used in the construction of these shelter homes, a plan is now underway to utilize in this field the old materials brought about by the compulsory people's evacuation now in progress. Also the bold move to tear down a portion of the inhabited houses at this time, and apply the material to this purpose is considered. As regards the labor necessary in the construction of the shelter homes, the Tokyo Metropolitan Office authorities are now negotiating with various quarters. However, this being a time of labor shortage, the authorities request a positive enthusiasm and cooperation from the citizens. The existing surface wooden homes are extremely inadequate, in view

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of the actual condition of air raid damage. These Tokyo Metropolis Shelter Residences, on the other hand, have the advantage of being used as decisive war homes, or shelters, or simply as store rooms for goods. They are cool during the summer and warm during the winter. Also, ... can be avoided to a great extent by opening many crevices on the four walls. Incidentally, the models of these shelter homes are now built at four places in the Hibiya Park. ... are requested to build these homes voluntarily after these models.

(Tok. Jap. 3/20/45)

PRODUCTION PROGRAMS

"Although the production of basic materials in Japan has been hampered by a number of adverse factors, there are still ways and means to overcome them and maintain the minimum production necessary for the prosecution of the war," writes the "Yomiuri Hochi's" economic correspondent, in an article appearing in the journal today. Excerpts from the article follow: (The greatest) task confronting the Japanese people, at the present time, is to overcome all obstacles in maintaining the minimum production necessary for prosecuting the war. In order to achieve this objective, the Japanese people must be prepared to undergo hardships and trials several times greater than those they are now experiencing. Frankly speaking, munitions production since the latter part of last year, has been so constrained by a number of adverse factors that the output of coal, iron, steel, and light metals and other vital materials, has not been up to expectations. This fact is due to restrictions on transportation with the Southern Regions, Manchukuo and China, as well as to adverse production factors, especially labor. As regards coal, two factors are chiefly responsible for the decline in production. Inadequate repair facilities for coal mining machinery, deterioration of mineral working efficiency, reduced production incentive due to the rise in production costs, and inadequate food supply account for the decline in the coal output. Reduced employment of motor vehicles, due to the shortage of fuel, is responsible for inadequate transportation facilities. In respect to iron and steel, difficulties in the way of importing iron ore and other accessory materials from abroad constitute the main factor for the Japanese iron and steel industry, which has been greatly dependent on foreign sources for its raw materials. The production of iron and steel from domestically mined iron ore is hampered by the one-sided location of coal mines in the eastern and western parts of the country only, and also by the location of iron ore deposits mostly in mountainous districts. The output of light metals necessary for aircraft production also failed to come up to expectations, owing to the technical bottlenecks involved in reverting to domestic sources for raw materials, the rise in production costs and the inadequate supply of industrial salt, coal and other materials. Similar adverse factors affected the production of other basic commodities. Nevertheless, the existence of these factors does not necessarily constitute the basis for entertaining a pessimistic outlook for munitions production in the current year. These disadvantageous factors can be overcome and turned to advantages, if the government and the people would only exert their utmost. First of all, production factors should be combined and mobilized so as to bring about the highest efficiency under the existing circumstances. Secondly, the present unsatisfactory distribution of workers should be rectified. In the Central Government, the Munitions and Welfare Ministries should establish closer collaboration between themselves, while in the local governments, the prefectural governors should hold the concurrent post of director of the local Munitions Supervisory Office. By so doing, it will be possible to make a more rational and appropriate distribution of workers, and thereby achieve increased working ef-

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iciency. Thirdly, if the main stress is laid on communication between the 'back door' to Japan and Manchukuo and China, it would easily be possible to import more materials and foodstuffs necessary for domestic self-sufficiency than through the 'front door' to Japan. Recent comprehensive stock-taking, made throughout the country, revealed that there existed considerable quantities of already distributed materials, which had been kept in storage and not actively utilized, owing to a lack of transportation facilities. Lastly comes the question of revamping the industrial management setup. Profits earned by the leading munitions companies have steadily declined of late, in no small measure, affecting production. On the other hand, those aircraft factories which have been placed under state management have registered better operating results than they did under private management. Similarly, government-operated alcohol manufacturing plants have shown better results than privately operated ones. It is high time that the government abandon its 'wait and see' attitude toward the problem of revamping the industrial structure. (Tok. Eng. 6/5/45)

Clothing

"To win the war, we ourselves will make our own footwear (to take place of) shoes and clogs." There is a school where a self-sufficiency program is being carried out for footwear, (to replace) shoes and clogs, with the principal and the teachers taking active leadership (in the program). This school, quite becoming the decisive wartime, is the ... National School at ... With the start of the GEA war, this school mapped out a program to make footwear, the idea being originated by its principal, (Kusumoto), and (coached) by Teacher Hasegawa. By making shoes from straw, the product is very satisfactorily serving as substitute for shoes. Pupils above the third grade are making their own, while those of the lesser grades are offering their help to the big brothers and sisters. The material from which the shoes are made is straw, and this straw is given to them gratis for the farm help they have rendered to the farmers. In other words, not a cent has been spent for the raw material. This being a very fine example for children in decisive wartime, other schools (in this region) have been invited to adopt this program. (Tok. Jap. 11/6/44)

Heijo: Since July of last year, the young girls of fourth year and upper grades of the Shoro National School here have been utilizing their vacations sewing buttons on old army uniforms. Desiring to do something more directly connected with the war, the girls offered to do similar work in a factory where uniforms are manufactured. Their services have been accepted. At first, the school authorities feared that the students would not turn out standard goods, but they have become more adept than the regular factory hands. In fact, they have won such a reputation that only the girls are now entrusted with the task of sewing buttons. In Nagano, the members of the Students' Patriotic Labor Corps of the Matsumoto Girls' Higher School, are now engaged in essential war work in a certain factory. (Tok. Jap. 11/28/44)

Fukui: In order to provide winter clothing for our men at the front, the hunters in the Takebu Police Headquarters in Fukui Prefecture will go on their first rabbit hunt around January 10. This first trip will be made in the Imajo area, but later, various other hunting grounds will be visited, in order to obtain the number of skins set as the goal. (Tok. Jap. 1/5/45)

(Clams) which are caught bountifully in the (rock) areas of Tosa Bay, Kochi Prefecture, are always delightfully tasty, and furthermore, because of the fact that their skins possess strength, not inferior to

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those possessed by animals, Mr. (Fukujiro Yoshifutsu), director of the Commercial Association of ..., Hata District, Hoichi Prefecture, manufactured the strings of Japanese clogs (geta--Ed), and a pair of gloves with this skin, experimentally. Whereas items, distinctly superior to animal hides, were manufactured, and thus recently, the all-out making (tanning--Ed) of these skins will be commenced as an (enterprise) of fishing vessels. (Tok. Jap. 3/3/45)

... A forestry engineer in Yamagata Prefecture discovered a new method to obtain cotton from straw, by cultivating a certain bacterium (on it). After experiments, the straw-cotton proved to be far superior to the staple fiber now on sale, and is durable enough to be used as laborers' clothing. The filtrate can be used as fertilizer. It is expected that the production of this new cotton will soon be industrialized on a large scale. ... (Tok. Eng. 3/28/45)

... Upon hearing the news that their friends in the decentralized locations are making camouflage nets, which are required by the armed forces, the school children of Midori Machi, Tokyo, decided that they would make Japanese sandals which are needed by industrial soldiers, so that they too, would be able to make a contribution, even though in small scale, toward the increase of production. They are now devoting their effort in production of Japanese sandals. (Tok. Jap. 4/15/45)

... The wonderful news of the perfection of a helmet, which will fight back the enemy raids, comes from Tokushima Prefecture. The inventor is Harukichi Yamashita of Maruyama-mura, Oya-gun. The helmet is made of bamboo, thus saving valuable steel. Stating that steel is too good for our own use and should be used only on the fighting lines, Yamashita thought of the idea of making a helmet from bamboo and finally succeeded in his efforts. This bamboo helmet is said to be able to withstand a blow from a shell fragment weighing 20 grams, flying at a speed of 50 meters a second. ... It is an excellent helmet, measuring up to par with that of steel, and moreover, it permits good circulation of air. The Japan Air Defense Society immediately gave it class "A" approval. (Tok. Jap. 5/8/45)

Houses

Hisaji Wakao, the famous Fukuoka inventor of the fireproof house, built a fire-proof apartment house as an experiment last year in Ohashi District of this city. This with his recent improvements, has received the full approval of experts. Other than for the wood that is used for the posts, the parts of the house such as the floors and ceilings which are likely to suffer damage from fire are constructed with poles of bamboo coated with lime. As the ceilings and the roof are one, there is no great danger that the house will be destroyed, because any incipient fire can be easily extinguished before it spreads. Furthermore, even though the house is bombed, since no heavy joints or beams are used, there is no danger that the occupants will be crushed to death by the falling timber. (Tok. Jap. 12/10/44)

The housing problem for the ever-increasing number of industrial workers in urban districts, has been effectively dealt with. The housing corporation has, so far, built 80,000 dwelling houses in urban districts, and has thousands more under construction, at present. (Tok. Eng. 12/12/44)

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Owing to the severe housing shortage, those transferred to Tokyo in the past, have wailed that they had no place to live, save under the strange skies, but today the situation has changed, so that we frequently encounter "for rent" sign. No matter how persistently the people were advised to evacuate, many did not heed, thinking such counsel did not concern them. But come an experience under an air raid, and the city was struck with the plague of vacant houses. Rooms and houses are being offered, rent free. Some good natured house owners have even promised a monthly stipend for someone to occupy their property. The once envied house-owners are now drawing sympathy. But we cannot consider that the recent air raids spell the end, and in thinking of the future, this present deluge of untenanted houses hardly justifies agitation. When people are rendered homeless, these vacant houses will be of immediate use. As it is most urgent that people be evacuated, the government, in order to strengthen air defense measures, has taken steps to protect these unoccupied houses from air raid damages. Those houses difficult to care for will be dismantled and moved. (Tok. Jap. 12/27/44)

Rope and Straw Products

Tottori: At a military convalescence center in Misasa, Tottori Prefecture, all the wounded soldiers are busily engaged in manufacturing ropes. Since the production of ropes made from straw was somewhat slow, the men who have had experience in farms are supervising the men. The money derived from this product will be contributed for the production of planes. (Tok. Jap. 12/26/44)

Aomori: The farmers in Aomori Prefecture are striving with all their might to produce more straw products, believing that even these products can be useful in war. From early in the morning to late at night, they are industriously at their work. Especially, the youth organizations with a membership of 200,000 are determined that they shall break the goal set by the prefecture. The goal of the four year plan is to produce 10,200,000 pieces of straw mats, 8,100,000 pieces of straw bags, and 6,380,000 kans of rope. (Tok. Jap. 1/12/45)

The students of the national school in Funaki Village, Unakami County, Chiba Prefecture, have been assisting with their utmost effort in making ropes, straw mats, and straw bags, so that they could be of use to the country even in the slightest degree. However, when they heard that the camouflage nets are the most important weapon, they said, "Let's make camouflage nets, in that case," and are exerting tremendous effort to increase the production of camouflage nets. (Tok. Jap. 3/22/45)

The pupils of the third grade of the elementary class of the Higashi Kodama National School, located in Higashi Kodama Village, Kodama-gun, Saitama Prefecture, have, for some time, been carrying on enthusiastic work in rope-making, setting their goal at 8,000 "kan". ... At the Fukuda National School, located in Fukuda Village, the pupils are all busily engaged in rope-making, too. Just the other day, they held a rope-making contest at the school grounds. The best record for the day was made by the boys of the third grade of the elementary class, who made 87 "shaku" within 20 minutes. The first prize (however) went to the boys of the 6th grade of the elementary class, who made 124 "shaku" within 30 minutes. (Tok. Jap. 2/2/45)

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Rope and Straw Products

Utsonomiya: In Tochigi Prefecture, the increased production of rope as an emergency article is being pushed forward. In Ashikaga City, offers of the free use of rope manufacturing machines were made to the agricultural association by the owners of the machines. The association has therefore divided each hamlet into four groups, and the machines offered..... An intensive operation is now under way through the cooperative use of the machine in relays by the various groups. Through the cooperation of the owners of the machines, the efficiency rate is soaring throughout, and it is expected that the allotted production goal of 1,800 "kan" of rope will be obtained without fail within this season. (Tok. Jap. 5/7/45)

The students of the Hirasaka Second National School in Hirasaka-Machi, in Kochi Prefecture, were asked by the Prefectural Agricultural Association to make 150 "kans" of straw rope, needed urgently in food production. So the children took to school, every day, small amounts of straw and worked very hard after school hours to make the ropes. The first day, the children were only able to make 8 "kans" because they were not used to the work, but by the 15th day, the students made 174 "kans" of rope. They were highly commended by the Agricultural Association. The children who were evacuated from the cities, learned, for the first time, from their friends here, how to make rope. Toward the end of the rope making project, these children were able to hold their own against the local children in making rope. (Tok. Jap. 6/5/45)

Salt

In the increased production of salt, abandoned salt fields are being restored and those ... in operation improved, while new salt fields are being opened up. There are ... more than 25,000 hectares of new salt fields being developed where there are mechanized means of pumping sea water and other scientific methods adapted. Consequently, exportation of salt to Japan is steadily increasing. (Tok. Eng. 12/25/44)

Oita: The Beppu Hot Springs, world-famous for the abundance of their hot mineral waters, will launch out into salt refining work in the near future. (Tok. Jap. 1/10/45)

Oita: Plans are under way in the village of Kamekawa in Beppu to establish a salt refining industry, which will utilize the heat from the famous hot springs in this area. First ocean water pumped into tanks will be drawn into reservoirs heated by hot spring waters, having a temperature of 100% or so. The sea water will then be poured into an evaporation vat and then finally into the crystallizing chamber. The Oita Prefecture is making the arrangements for the materials and equipment. (Tok. Jap. 1/29/45)

The government, last year, permitted the manufacture of ... salt, which was heretofore a monopoly, encouraging increased production of salt under this wartime. Further, in order to seek increased production of salt more than ever at this time, it was decided to launch a great national increased salt production movement and establish a self-sufficiency structure in salt. At today's cabinet meeting, the matter of propagation and promotion of self-sufficiency salt manufacturing was discussed and decided upon. An announcement concerning this was made by the Information Board. Since the recent salt production situation in our nation is due to transportation problems, we must (rely) on homeland salt. As a measure to cope with this, in 1945, an increase in the amount of salt manufactured by salt manufacturers of 50% will be made, in order to drastically increase production of salt. Further, the goal of ... salt manufacturing will be placed at 200,000 tons, seeking increased production. In order to do this, a self-

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sufficiency Salt Manufacturing (Promotion) Headquarters was established in the Finance Ministry, and by mobilizing the IRAA and the various other organizations, a national movement for increased production of salt with the government and the people unified as one, will be launched and measures will be taken for propagation and promotion.
(Tok. Jap. 3/9/45)

At the cabinet meeting held on March 9, it was decided to further (manufacture) 200,000 tons of salt. Tamura, (councillor) of the Finance Ministry speaks on "Let us All Make Salt". "Ladies and gentlemen, at the cabinet meeting held on March 9, the government decided, first of all, to carry out self-sufficiency in the manufacture of salt. This self-sufficiency manufacture of salt means for you, people, of the nation to make salt by yourselves. As you know, salt is a monopoly product of the government. Monopoly means that you cannot buy and sell it freely. However, (it was decided) to allow manufacturing of salt without the permission of the government. For the government, this is a great decisive step. ... We are importing more than one half of our supply from Manchukuo and China. With the change in the war situation, transportation between Manchukuo and China can not be carried on as we want. We must also take into consideration the situation of (emergency) in our homeland. In view of such a situation, we must establish self-sufficiency structure. ... At the same time, as much as possible, we must conserve this salt so that we can send all the salt which we import from China and Manchukuo to the industries and thereby seek to increase our fighting power. ... There are about 2,200 (monopoly fields) throughout the nation, and they will engage in production of the 200,000 tons. All we have to do is make half a kilogram each of salt. The salt distributed to your homes each year is about four kilograms. We want the people on the farms to make this amount. You may say, is that all? The government is seeking increased production. Thus, the government will not say anything about monopoly and other matters. You can make all the salt you want and with whatever method you care to use. ..."
(Tok. Jap. 3/12/45)

... The productive capacity of salt at home is very low, and a greater part of the salt used is imported. Although there are great deposits of salt in Manchukuo, North China, and Kwantung Territory, transportation difficulties prevent them from being fully exploited. The authorities concerned are demanding the government take drastic measures to improve the situation. Since May, 1942, the greater part of salt shipments was made over the rails instead of in bottoms. Salt from Manchukuo has been moved over the railways since July, 1943. Principle sea transportation routes between the continent and Japan have become very congested with the transport of other urgent commodities. Moreover, the voyages scheduled for wooden ships, which are engaged in ocean transport work, are being limited because of the shortage of fuel. Junks are not suitable for this kind of operation because of the time for each trip. As a result, only about 20% of the scheduled amount is now being moved. During the 1945 fiscal year, a complete change-over to overland transportation has become imperative. As the supply of salt from abroad is becoming more scarce, the chemical industries are expected to carry out urgent measures to relieve the situation, among which is a plan to secure more foreign salt.
(Tok. Jap. 3/15/45)

Wakayama: All the soy sauce brewers in Yuwasa-machi, Arita-gun, the foremost soy sauce producing area in Wakayama Prefecture, in accord with the desires of the government, will build a large-scale cooperative salt refining plant in the neighborhood village of Hiro-mura.