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NAZIS PUBLISH FORCED LABOR RULES FOR POLES

A German publication, "*Arbeitsrecht der Polen im Deutschen Reich*," describes the situation of Poles deported to the Reich for forced labor. The introduction says:

"A Pole is always Germany's enemy—Poles have erased themselves from the list of civilized nations—employment of Poles is an inevitable evil—differentiation in treatment of Poles is necessary in order to underline the social achievements of German workers.

"German labor regulations order the Poles to wear a badge with the letter P—forbid them to enter churches, recreation grounds and establishments, forbid them to leave their place of domicile where they are employed—allow them smaller food rations than those granted to workers of other nationalities.

"Furthermore, since 1942 Poles have not been given any clothing ration cards—they have the right to medical service only at their domicile, they are not accepted in hospitals or nursing homes when ill, their wages are lower than that of any other nationality. The highest wage for Polish agricultural laborers cannot exceed the lowest wages paid to other nationals, in industry Polish workers do not get increases and additional grants and only very limited assistance in case of illness.

"A labor contract with the Polish worker is non-terminable and his working hours are unlimited, generally between ten and twelve hours daily. No regulations regarding protection and welfare of workers may be applied to Poles, holidays are not granted—Poles pay 15 per cent higher taxes than the normal taxation. Their place of residence must be separated from those of other nationals, particularly from Germans."

ALL POLES TO LEAVE PERSIA

The Teheran Branch of the Polish Ministry of Social Welfare has ordered the evacuation of all Poles from Iran. The evacuation order includes everybody except persons employed with American or British forces in Teheran, Hamadan, Andimeshec, or by the Polish Government in Iran. The order has been decided upon at an American, British, Polish conference held at the end of December.

Poles living in Teheran but not employed in any of the above mentioned offices must be in camps for evacuees by January 25th at the latest or forego all claims to protection by the Polish Ministry of Social Welfare.

"HONOR AND MOTHERLAND" TELLS OF POLISH HEROISM AND GERMANY'S DUPLICITY

Four Months Terror

In the four months from October, 1943, to January 28, 1944, the Germans have publicly executed 1,007 Poles in Warsaw. In addition on January 13, 600 more persons perished in the Warsaw ghetto.

During the same time the Germans killed more than 5,000 Poles in other parts of Poland. These gruesome statistics show how freely the Germans are shedding the blood of a nation that refused to surrender. The Germans never will understand the Polish mentality. They imagine that by terror they can succeed in breaking the Polish spirit. They do not realize that the greater the terror, the greater will be the revenge.

POLISH TROOPS "COMMANDOS" FIGHT IN ITALY

Polish Army Headquarters in London reveal that Polish Commandos went into action with the Eighth Army in Italy last December. They operated in mountainous country around Capraco, their task being to make reconnaissance raids beyond the river Sangro.

Military operations in that neighborhood were particularly difficult because the enemy had destroyed all roads, bridges, embankments, and visibility was very poor on account of mist. The Germans were quartered in villages around Gamberale and in farms on the heights.

Despite thick enemy mine fields on both banks, the Polish commandos crossed the river next morning and scouted the mountains seeking out scattered farms. There were encounters with the enemy. One Polish soldier who was himself wounded, carried an injured Paratrooper officer for 150 yards to a place of safety.

Immediately after sunset the Germans counter-attacked from both sides. For the next four hours the Poles were completely surrounded but succeeded in driving off all attacks and holding on until midnight, when the Germans withdrew. However, the Germans counter-attacked again at three in the morning in much greater force. A bitter fight ensued, lasting until dawn, when the enemy withdrew. Next day the British sent congratulations to the officer commanding the Polish commandos.

"Honor and Motherland" is the title of an underground publication recently issued in Poland, containing numerous little known details about life in occupied Poland. Here are some excerpts:

From the diary of a German soldier: "In a captured forest dead Poles lying with Germans killed during the attack. I could not believe my own eyes when I saw a dead woman lying in military uniform with riding breeches but long hair which fell from under her forage cap across a beautiful face. Her head was thrown back, her hand still stretched towards the rifle which fell from a dead hand."

"Warsaw besieged: In Czerniakowska street stood a small girl holding the hand of a boy aged three, carrying on her arm a little boy aged one and a half. Shells were bursting all around. A car drove up and an officer alighted, saying, 'What are you doing here, children? Where are your parents?' The children replied: 'A shell destroyed our home and killed them.' The officer asked: 'Where are you going?' The reply was: 'To the hospital.' The youngest child had a hand torn off. The sister bound the stump with a handkerchief, then sought the hospital in order to save her little brother. The officer asked her age and was told: 'Six; brother will be all right, won't he? I expect his hand will grow again; he was always so healthy.'

"Good Germans: A German film shown in all cinemas of the Reich shows a Polish family sitting at lunch. Somebody knocks on the door. A German official enters and says: 'Oh, sorry, didn't know you were having lunch. I shall return later,' and withdraws. Then the Poles and a German official are shown sitting in armchairs smoking. The German says: 'You understand, we must make preparations to receive our compatriots from the Baltic countries, from Volhynia and Rumania. They are returning to Germany, leaving behind workshops, homes, and places of businesses. The Fatherland must prepare a cordial welcome, replace their lost property so that they feel happy in this ancient German territory whence their ancestors emigrated.' A Pole says: 'I understand that perfectly.' The German continues: 'You'll realize also that the Poles must make way for the Germans. You are only staying here, nothing links you with this land. Your place is further east. You're perfectly right,' reply the Poles. 'Naturally, it's hard for one to be leaving a place where one has been living and leaving one's home and workshop, but you'll be rewarded properly. You'll receive compensation

NATIONAL UNITY COUNCIL SET UP INSIDE POLAND

In a recent broadcast to Poland, the Polish Prime Minister referred to the temporary organization of the Polish authorities within Poland and revealed the fact that the Polish Government's delegate is active there as Premier's Deputy.

News received from Poland tells of another important step in the organization of the Polish Underground State. It has been decided to transform the present political representation in Poland into a larger body and the Polish Government's delegate has announced the formation of a Council of National Unity composed of the delegates of the four main political parties.

For the time being the Council of National Unity holds its meetings in secret, but the names of the members will be revealed at the proper time. The Polish State organization is assuming an increasingly formal aspect and beginning to work more and more openly in preparation for the moment when it will take full charge of the Polish administration.

in the East where you'll be able to create good conditions of new existence."

"Third scene: A Pole and a German official making inventory of property, writing on a board: 'About two hundred; let's make it two hundred, it's in good condition. Handles are rather worn. That's nothing. They're easily repaired.' The German says: 'You've forgotten that picture. I expect you'd like to take it with you. There in the corner, I see a silver tray. The Pole replies: 'Oh, that's old and worn out, not worth anything.' 'You're wrong,' protests the German, 'it's genuine antique, Louis XVI, let's estimate it at least 500 marks.' 'Well, I never did know I had such valuable stuff in my house. One needs to be a cultured German in order to estimate the value of works of art.' 'It's in our blood,' says the German modestly. The scene ends with the German handing the Pole a wad of banknotes which was accepted with barely concealed eagerness. That film was shown in Cracow."

"In reality what happened was different. At night the Gestapo forced an entrance into Polish homes, gave the sleeping inhabitants ten minutes to leave home. It was forbidden to take any baggage. The Poles only took what lay handy. The Germans seized the most valuable property. The deportees were put in lorries and driven to concentration camps. Others were deported to the Government General, turned out of the train at the first station, and left to their fate."

"Remember the past, preserve the serenity of your spirit and repeat the song of our fathers; for Poland will not perish so long as we live!"

—Joachim Lelewel (1786-1861)

An address to Polish Youth (1844)

Amazing Facts About Poland's Underground Press

by JAN KARSKI



POLAND'S Underground has more than 140 regular publications. In Warsaw alone there are more than 85 secret periodicals, or more than the number that existed in normal conditions before the war. It is impossible to give any indication of how the equipment, paper, press work, and headquarters are obtained. In this field more than anywhere else the

inventiveness, ability and daring of the underground are revealed.

It is an amazing fact that one periodical was for a long period printed on the finest Japanese paper, while another was published in the format of the London Times. In the first leading article of this newspaper the editors informed their readers that they had "adopted this conspicuous and dangerous format because after long consideration it had been decided . . . not to take any notice of the German occupying authorities and the Gestapo".

Some of the periodicals have pictures in three-color process, and there are frequent new editions of Polish literary classics running to hundreds of pages per volume, as well as new missals, school primers, etc. The scope of the secret press and its influence on the community are inestimable. A citizen of another occupied country, a man who is now in freedom, has defined a member of the Underground Movement as being "in the broadest sense of the word, anyone who at least has contact with and regularly reads the underground press." If this criterion were applied in Poland the resulting figure would seem incredible.

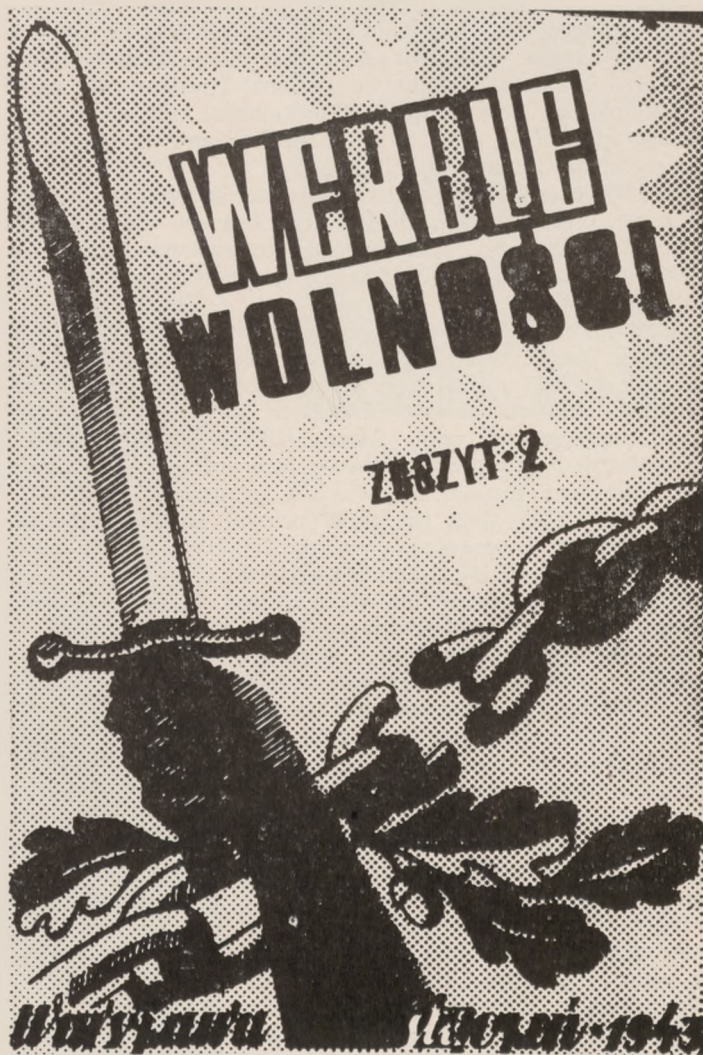
Certain papers, such as "*Rzeczpospolita*" (The Polish Republic) the official organ of the Government, the *Wiadomości Polskie* (Polish News), the official organ of the Commander of the Home Army, or, finally, the most popular of all the underground journals, the *Biuletyn Informacyjny* (Information Bulletin) never print less than 25,000 copies. And the aggregate printing of all the underground periodical press has been calculated to be at least 500,000 copies.

Taking it that each copy is read by at least ten persons, the astonishing figure of more than five million Polish readers is reached.

In Poland the broad definition of an Underground member given above is not accepted. In Poland a member of the Underground is one who gives his labor, risks his safety. A person who receives something from the Underground even though he runs some risk in accepting it, is not *ipse facto* a member. He has been given something, has been served by that movement, but he is not therefore entitled to be regarded as a fighter for national freedom.

In discussing the secret press, attention must be called to the tremendous part played by poetry. Every issue of a periodical, gives a place of honor to the poet's contribution. Poems and verses Poles learned by heart at school, have now acquired particular value and significance.

There was the case of a fifteen-year-old boy, a member of the Home Army, captured by the Gestapo in the act of



Underground anthology of verse *Roll-call of Freedom*, Warsaw, January, 1943.

distributing secret periodicals, and subjected to horrible torture. When the Underground Movement got a message to him asking how they could help and what he needed, he answered in the words of the poet Asnyk:

"Though I perish,
Though I fall,
Yet life will not have been squandered,
For the finest part of life is in such struggle
and pursuit.
It will be worth while seeing that magic building
of crystal from afar.
It will be worth while to pay with blood and
pain for entering the region of the ideal."

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THE POLISH PEASANT PARTY

by WITOLD KULERSKI



THE beginnings of the Polish Peasant Movement reach back into the history of the Partitions of Poland. When the country recovered its independence, two distinct political organizations of the peasantry existed: The Polish People's Party, *Piast*, and "Emancipation," founded and developed in the Austrian- and Russian-occupied parts of Poland respectively.

The *Piast* Party was more moderate and constitutional in character, and had the advantage of parliamentary experience and tradition. Under Russia there was ruthless exploitation and oppression, with the result that all political activities centered around the fight for national freedom and social emancipation. This circumstance, combined with certain Socialist influences, gave a more radical and revolutionary character to "Emancipation."

A few years after Poland regained her sovereignty, a third peasant organization, called "The Peasant Party," was formed. This was purely a class organization, and only peasants were admitted. It was the smallest and the least influential of the three.

Under Prussia, no well organized political organization of peasants developed. The intense pressure the Germans brought to bear on all Poles forced the peasantry to concentrate, like other social classes, on the defense of their land, language and creed. After 1918, all the three parties extended their activities into the western provinces of Poland, but *Piast* soon gained a lead which it maintained.

In the Polish Diet, the three peasant parties, although inexperienced, constituted a powerful political group until the *coup d'etat* of 1926, and the artificial reduction of their parliamentary representation which ensued. Wincenty Witos, leader of *Piast*, was three times Prime Minister. First in 1920, when the Soviet armies were at the gates of Warsaw and he was called upon to form a government of National Unity. This government lasted fourteen months and, in a troubled period of Poland's history, succeeded in organizing the reborn Polish State. All main political parties were represented in the Cabinet, and Daszynski, the most prominent Socialist leader of the time, was Deputy Prime Minister. Witos' third term of office as Prime Minister was in May, 1926, his Government being overthrown by Pilsudski's *coup d'etat*.

Soon the peasant parties began to take an uncompromisingly hostile attitude towards the Government. On December 30th, 1930, their parliamentary representatives formed a united committee, and, on March 15th, 1931, the three parties held a joint congress. At this congress an unanimous resolution was passed to amalgamate. The new organization took the name of "The People's Party," and Witos was elected Chairman. Meantime, on June 29th, 1930, a congress of all the Polish center and left parties had decided to present a united front in the impending elections.

The Government reacted vigorously, and on September 10th, 1930, Witos

and other leaders of various parties were arrested and imprisoned on the charge of conspiracy and of organizing a revolutionary plot. Thus they were prevented from standing as candidates. They were brought to trial and sentenced a year later, but they refused to accept the verdict, and Witos and others went into exile in Czechoslovakia and elsewhere. In these circumstances, Maciej Rataj, became acting chairman of the party and Mikolajczyk deputy chairman.

The People's Party was not organized on class lines. Its program states that "The People's Party" considers and cares not only for the interests of the rural class, but also for the general interests of the Polish people and the State. . . Further: "The People's Party places first the provision of solid foundations for our existence as a State by assuring Poland's external security and strength, as well as order and system at home."

External security and strength the People's Party proposes to base (a) on the resources of the whole nation; (b) on a well-trained well-equipped army with high morale; (c) on defensive alliances, loyally observed; and (d) on active co-operation with institutions of collective security.

As for the internal system, it must be democratic and republican, and must, on the one hand, ensure freedom to all citizens and, on the other, possess a strong executive at the center. The system should be based (a) on the equality of all before the law; (b) on respect for law and for principles of Christian morality in public life; (c) on a Diet and a Chamber of Economic Affairs; (d) on a Government responsible to the Diet; (e) on independent courts of justice; (f) on a properly endowed and politically independent civil service; and (g) on competent local government.

The People's Party demands uncompromising national, racial and religious tolerance and equality.

Other parts of the program deal with social, economic and educational problems. Work, mental or physical, is regarded as providing the basic title to participation in the social income, and



MACIEJ RATAJ was the son of a peasant, and a teacher by profession. He became Speaker of the *Sejm*, and was twice Acting President of the Republic. Formerly a prominent member of "Emancipation," he later joined the *Piast*. In October, 1939, while still Acting Chairman of the People's Party, he was imprisoned and later killed by the Germans.

the program advocates a planned economy, co-operatives, the nationalization of certain industries, such as armaments, the reform of education, and an extension of the State medical services and social insurance benefits which were already in operation.

Believing that individual, peasant-owned farms are the best basis for a sound agricultural system in Poland, the program also demands that the Land Reform shall be completed as swiftly as possible; but it recognizes that the present reserve of arable land available for parcellation is far from sufficient to satisfy existing needs. Before the war 82 per cent of the arable land was already owned by small holders with farms of under 50 hectares (123.5 acres), while 64.7 per cent of all the existing farms were less than five hectares (12.35 acres) in extent. Consequently, the program insists on intensification of agriculture and on industrialization of the country. These measures would help to absorb the surplus rural population, and raise the general standard of living.

In international affairs the People's Party has always stood for good neighborly relations with Soviet Russia. Further, it has aimed at close co-operation with the Western democracies and has striven for close, possibly federal ties with other Central and Southeastern European countries of a predominantly peasant character. The Party co-operated with all the other peasant movements in the International Agrarian Bureau at Prague. This co-operation has continued since the outbreak of war. On July 9th, 1942, Mr. Mikolajczyk and another member of the Polish People's Party, together with representatives of peasant movements and communities in six other countries situated between Poland and the Aegean



WLADYSLAW BANACYK comes of a peasant family, and is a lawyer. A member of the Supreme Council of the People's Party, he was Chairman of the Peasant Party group in the National Council until 1943. He is now Minister of Home Affairs in the Polish Cabinet.



STANISLAW MIKOLAJCZYK, son of a peasant family in western Poland, was a manual labourer in early years, but later inherited and farmed his father's small holding. A self-educated man, he was elected deputy to the *Sejm*, becoming secretary-general to the Parliamentary Committee of the People's Party. Mikolajczyk was also Chairman of the oldest and largest professional association of farmers in Poland, and has always been very active in local government and in co-operative and social activities. Later he became Chairman of the People's Party. Since 1939 he has served successively as Acting Chairman of the Polish National Council, Minister of Home Affairs and Deputy Prime Minister, and now as Prime Minister of Poland.

Sea, signed a common declaration of principles called "A Peasant Program." This statement was drawn up after the signatories had held a series of meetings in London, under the chairmanship of Sir Frederick Whyte.

Immediately after

the campaign of September, 1939, the People's Party set up an underground organization, and effectively continued to struggle against the enemy. Indeed, the first, and successful, full-scale engagement fought by Polish underground forces against the German Army was carried out by the military organization of the People's Party. It took place in the district of Lublin.

Many of the secret



PROFESSOR STANISLAW KOT, who comes from a peasant family, was a well-known historian at the University of Cracow, and Treasurer of the Central Executive Committee of the People's Party. Since 1939 he has been successively Minister of Home Affairs and Deputy Prime Minister, Ambassador to Soviet Russia, with the rank of Cabinet Minister, and now Minister of Information.

newspapers printed in Poland are published by the People's Party. Two secret papers, one for women (*Zywiec*) and one for children ("Ladybird," of a general educational character) are unparalleled achievements in the development of Poland's underground Press.

The losses suffered by the People's Party are of course very heavy, and many leaders have been either executed or put into concentration camps; the full story cannot yet be told.

Leaders of the People's Party who were abroad were instructed to support and to join the Government formed by the late General Sikorski, with whom the party was in touch long before the war, and whom President Raczkiewicz had designated, in 1939, as the new Prime Minister.

After the tragic death of General Sikorski in 1943, Mr. Mikolajczyk, Chairman of the People's Party, was entrusted with the task of forming a new Government. The Party is also represented in the Government by Professor Kot, the Minister of Information, and by Mr. Banacyk, the Minister of Home Affairs.

In the present Polish National Council, the People's Party has five seats.

Correct pronunciation of some Polish names mentioned in this article: Mikolajczyk, *Mee-ko-lai-chik*; Banacyk, *Bah-nah-chik*; Rataj, *Rah-tai*; Raczkiewicz, *Rach-kyeh-vich*; Daszynski, *Dah-sheen-ski*.

AN EXHIBITION OF POLISH FOLK WOODCUTS AT THE ART INSTITUTE OF CHICAGO



"Crowned Virgin and Child."

AN exhibition of Polish Folk Woodcuts has been open at the Art Institute of Chicago since December 10. Frank Holland in *The Chicago Sun* (December 26, 1943) calls them "colorful and bold." He furthermore states that "the awkwardness of the artists and the limitations of the woodblock itself, along with some Byzantine influence, combine to make the prints decorative and quaint," and he points to the traditional religious subjects and the attempt to reproduce some well known sacred painting or shrine.

About fifty in number, these Polish folk woodcuts were printed toward the beginning of the past century by Polish peasants. Many are hand-colored. The collection was assembled before the war in Poland by Marya Werten, a Polish art educator, well known in this country. Mr. Carl Schniewind, Curator

of Prints and Drawings at the Art Institute of Chicago, personally selected the prints out of Miss Werten's ample peasant art collection while on a visit in New York. Besides the prints, he also chose a number of Polish peasant paper cut-outs, consisting of colorful geometric and floral designs, as such paper and ornaments usually hang on the walls of the peasants' homes along with the woodcuts. He supplemented the exhibition with block printings on linen, loaned by Miss Marya Lilien, and with three old peasant "holy images" carved in wood, loaned by the Museum of the Polish Roman Catholic Union in Chicago. Also the Polish Information Center and the Polish Arts Club of Chicago have contributed to the success of the Polish exhibition.

In recent years, Americans have shown great interest in their own folk art and discovered many a forgotten American folk painting. Naturally enough, they are anxious to get acquainted with the various manifestations of folk art of other nations. Of this tendency in American art circles many instances could be cited. It no doubt prompted the Department of Prints and Drawings of the Art Institute in Chicago to arrange the present exhibition of Polish folk woodcuts, that has stirred such interest among art connoisseurs that already other outstanding American museums and galleries have announced their readiness to display the same collection.

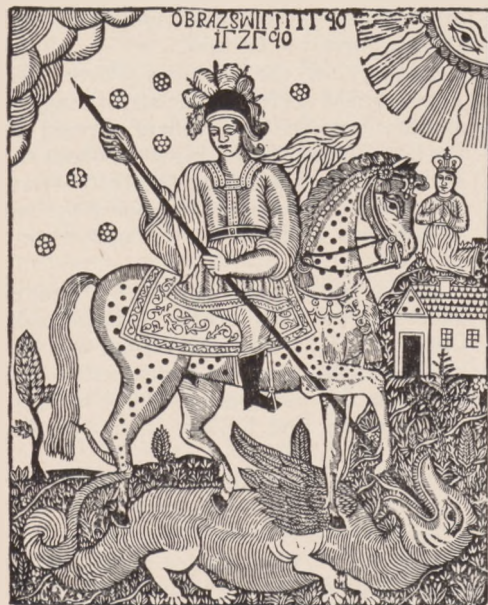
I. P.



"Madonna and Child Crowned by Angels."

"Peasant art reflects the character of a nation, its ethnic peculiarities, its capacity for creative and independent expression."

—JOZEF GRABOWSKI
"Ornamentation and Peasant Art in Poland"



"Saint George."



"Holy Family."

Polish Scientist's New Theory of the Universe

by ZYGMUNT TEBINKA

Since the German invasion of Poland in 1939, a ruthless policy of destruction and extermination has been applied to its people. The most persecuted are the intellectuals, the greatest crimes of destruction are perpetrated against Polish schools and Universities, the seats of Polish culture. Some of Poland's scientists have succeeded in escaping the German murderers and are continuing their work in exile. Professor Mokrzycki is one of them. Under difficult conditions of working far from his native country, he has created a new theory which has attracted the attention of scientists of the world. His work is a challenge to the dark forces of Fascist Germany. It proclaims that Poland still lives, that free thought is indestructible.

Gustaw Mokrzycki was graduated from the Lwow Institute of Technology and from "L'Ecole Supérieure d'Aeronautique" in Paris. From 1927, he was professor at the Institute of Technology in Warsaw. A member of the Royal Aeronautical Society in London and Institute of Aeronautical Sciences in New York, he is now professor at the Montreal Institute of Technology. He is the author of a number of scientific works on aeronautics written in Polish, French and English.

In the last issue of the "Bulletin of the Polish Institute of Arts and Sciences in America" Professor Gustaw Mokrzycki describes his new thesis of the Universe which he calls "The Aerodynamic Cosmogony." He expounds his theory as follows:

WHAT is this universe? How did it come into being? You certainly know that some thousands of years ago astronomers considered the earth as the center of the universe, and around the earth were revolving the two big lights, the sun and the moon, and several planets, all placed in the various "spheres" of the sky.

The seventh sphere was the blue of the sky, and behind this curtain was located heaven. Because the curtain was a little worn out, the light from heaven leaked through some tiny holes, and those leaking spots were the stars.

You have probably heard of the great revolution due to the Polish astronomer Copernicus. He told us less than 400 years ago that the sun does not move, and that the earth is only a tiny planet revolving around the sun with several other sisters.

But only a few decades ago, powerful telescopes enabled us to make an exact survey of the sky, which was the second revolution in astronomy. Thanks to this survey we have today an idea of the number of stars in the sky, and their arrangement.

Powerful telescopes dissolved into separate very distant stars, that faint belt in the sky which is visible on bright nights and which is called the Milky Way. Our own sun belongs to the system of the Milky Way, and is only an average star among the others whose number we estimate today from 40 to 200 billion.

We know today that the system of the Milky Way, is not the only one in the Cosmic space. We estimate the number of such systems, as about 100 million, comprising in all about 200 billion stars, and telescopes still more powerful, will in the future reveal more of such "island universes" called Nebulae.

We know that the distance between those Nebulae is about 500,000 light years: that is: light travelling 186,000 miles per second would require 500,000 years to cover the distance.

How do our Milky Way and those Nebulae look? By photographs of those distant worlds, we know that seen from the side they resemble a flat lens, of some 100,000 light years diameter, with a nucleus in the center. Our sun is about $\frac{3}{5}$ of the distance from the center, and so is nearer the border of the Milky Way.

Viewing from above we would distinguish a central nucleus surrounded very often by 2 spiral arms.

The Nebula revolves around the center, the velocity is less toward the border, greater toward the center. Our sun is not at rest in space but takes part in this movement. The Nebulae not only revolve around their center but they have also a motion of their own in the cosmic space.

You are no doubt aware that our sun has 9 known planets, the most distant being Pluto about 70 times as far from the sun as the earth is. You also know that some planets have satellites.

You know too, that the sun revolves around its axis in about 25 days and that all the planets move around the sun in the same direction, in orbits which are nearly in the same plane as the sun's equator, and that the orbits of the satellites are as a rule also nearly in the same plane. But some satellites move not in the same direction which we call direct, but in the opposite retrograde direction.

The distances between the planets follow a law, known as the Titius-Bode Law. Well, why should the tidal column collapse in drops, whose distances follow the series: 1:2:4:8:16:32?

The discovery and photographing of extra galactic nebulae seem to give a new answer to the question of the origin of the universe,

this answer being shown in the sky. The majority of these nebulae have the form of a huge cosmic vortex, with a central nucleus and very frequently two spiral arms. Modern aero and hydrodynamics, deal also with vortices. We can establish striking analogies between the photographs of our tiny laboratory vortices and the huge cosmic vortices of nebulae discovered by modern astronomy.

Spiral nebulae obviously present a picture of a vortex. If we consider the so called "vortex street", which is a system of vortices behind, for example, a cylinder placed in an airstream, we can distinguish the close similarity of a single vortex to the spiral nebula.

The ring nebula in constellation "Lyra" resembles the smoke ring often produced, when smoking.

The network nebula in Cygnus and the trailing vortex of an aircraft wing are of the same kind.

We can observe vortices in the sun prominences, in the sun spots, and also in the movement of the atmosphere of the earth. More examples and more analogies between the cosmic and laboratory vortices could be given, in order to prove that vortex can be considered as a rule in cosmogony.

Cosmogony, based on the vortex theory, has received the name "Aerodynamic Cosmogony", which is a name perhaps not happily chosen, yet it should remind us that the same laws which govern aerodynamics may also be adapted for cosmogonic purposes.

A vortex in a fluid may start from the relative recti-linear motion: for instance, if a rigid body is moving through the fluid, or by the shock of two gaseous masses, or in a straight stream if there are differences in the velocity of fluid, perpendicularly to the fluid motion.

We have never been able to explain in cosmogony the cause of the circular movement. The mystery can now be reduced only to relative recti-linear motion.

Once the primary vortex has started—say the vortex of our sun nebula—we can easily imagine the secondary planetary vortices generating in the sun vortex, and again tertiary satellite vortices, generating in the planetary vortex.

When and where a secondary vortex will be formed depends on certain mechanical relations established by the vortex theory.

But we may proceed with our vortices in the opposite way. We can consider the sun vortex as a tertiary one, being generated from the secondary star cluster vortex, which was born from the primary vortex of the Milky Way. The center of a vortex creates a strong suction—a fact well known to the swimmer who gets into a river vortex. This suction may be considered as the cause of condensation of matter in the cosmic vortex, and may even furnish an explanation of the Newton Law of gravitational pull. The aerodynamic theory gave the mathematical proof of this law on the basis of vortex mechanics.

A vortex creates the tendency to arrange all fluid in the same plane, which explains why The Milky Way and all nebulae have the shape of a thin lens, and why the planets of our solar system are nearly in the same plane.

Thus, the vortex theory gives us a uniform explanation of the origin of all celestial bodies, from nebula to satellite, needing for this purpose only one simple model. The vortex theory can also explain many other problems. The frequently observed double stars may be explained by a pair of vortices produced always in the wake of a turbulent stream behind a body.

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Gustaw Mokrzycki

JAN KAZIMIERZ UNIVERSITY IN LWOW



King Jan Kazimierz, Founder of Lwow University in 1661.

both by King Stefan Batory and the Pope.

In 1661 Father Jędrzej Sikorski, with a charter he himself prepared providing for the foundation of Lwów University, asked King Jan Kazimierz to sanction it and to sign the document. The King signed the charter on which the Royal Seal was impressed in Czestochowa.

In this chapter Jan Kazimierz stated, "We grant readily and willingly that the College of the Jesuit Fathers in Lwow be raised to the rank of an Academy and take the title of University."

"We grant that in this College faculties of canon law and moral theology, of philosophy, mathematics, law, medicine, the free arts and all science, be established according to the customs and practice of academies and universities.

"This we ordain for all times under the title of University and Academy." Further the King wished and expressed that this Academy and University benefit by all laws, privileges and prerogatives, freedom, titles, decorations, honors and offices or favors, benefits and indulgences, enjoyed by the Cracow and Wilno Universities.

"Above all We grant that the Academic Degrees of Baccalaureate, Master, Licenciante, Doctor and other ceremonies and titles customary in Universities be given and celebrated in this University of the Jesuit Fathers."

The charter signed and sealed by the King on January 20, 1661, to all intents and purposes is regarded as the legal document granting University rights to the Lwow College.

Although the charter was not mentioned in the Constitution of the Kingdom it had its independent legal meaning which only the King could abrogate by recalling his own words.

Sanctioned by the King the University carried on its work till the dispersal of the Jesuits upon the partition of Poland by Russia, Prussia and Austria. According to civil law the Academy could not always use the title of the University. The important fact is that it granted the title of doctor of theology and doctor of philosophy.

There were two faculties, the faculty of art: including philosophy, mathematics and physics and the faculty of science including, canon law and moral theology, exegesis and Hebraic and at times law and



New building of Jos M. University in Lwow

medicine.

From the moment the Jesuits received their charter from Jan Kazimierz they maintained and sought to improve their College. They gave the same courses as those given in Cracow and Zamosc Universities. The number of students increased and a new building was constructed which is standing to this very day.

On April 18, 1758, King August III signed a charter which confirmed in full the privileges granted by Jan Kazimierz.

"We deem it a rightful thing—the King said—to confirm this charter that Lwow University enjoy the same rights and privileges, under the Constitution of the Kingdom of 1635 or granted at any other time, that are enjoyed by Cracow Academy." Papal ratification was given by Pope

Clement XII on March 24, 1759, by the Bull "Cunctis ubique pateat."

Things did not go smoothly for the University however. Eighteenth century Europe was rising against the old system of education, at the head of which were the Jesuits. Poland too sought to depose the Jesuits from their strong position. But the Jesuit University of Lwow weathered this storm as it had withstood others. Dissention died down and Lwow Academy continued its existence under the Jesuits. Things remained thus until the first partition of Poland and the dissolution of the Society of Jesus by the partitioning powers in 1773.

In this era the University produced many famous men. Some of them were: Tadeusz Krusinski, famous orientalist; the pride of the Lwow Academy was Kasper Niesiecki, the untiring historian of the Polish nobility. Other students of great fame were Jan Stanislaw Jablonowski, statistician and politician; Ignacy Krasicki, later Bishop of Varmia, and Franciszek Karpiński, great Polish poet.

When the Austrians took Lwów they fell heir to the University, fully equipped with library, astronomic observatory and scientific collections. But this institution was empty from September 28, 1773. Students dispersed, the Jesuit professors were forbidden entrance. This state of affairs could not last long because the provinces that were taken by Austria needed if not an University at least a diplomatic school.

Immediately after the partitions Maria Theresa began to think of an Austrian University in Lwow to take the place of the Jesuit University.

In 1773 the "collegium medicum"

Oblata Privilegiy super Aca-
demiâ Leopoli in Collegio
P. Soc. H. S. V. erigendam

Joannes Casimirus ex. Significatus ex

Quomodo coram Ato: Alencia Regni Cancellaria Alimna comparari possit
Nathor Andri Pater Ambrosi Scholae Societatis Jesu Bolyas. Al
lusmi & Andm in Chie Dio Dni Bolyas in Praemon Praemonialis Episcopi Lu
centensis & Breiten Supremi Regni Cancellariae Theologus obtulit ad Ato pa
scribis inexcusandum Praeulatum Thegi. Reliquorum PP Secretarius Jesu &
pohens, super nomine eiusdem iam ibidem. Iusticiam, a nobis nuper benignè
concessum, namque hodie sublimem Exigello Regni Maroni communitatem sa
num, saluum & illasum, omnique suspitionis nota carente. Pene suscipi Et sch
ex iisdem Ato deorsum authenticè extracti. Cuius quidem Praeulati reor
sequitur eiusque ruli. Ioannes Casimirus Aliquas Rex Et ad populum
re memoriam Evocationis presentatis significamus. Regiam Regni, Alu
tus tantum Supremia debet quantum viri ac meritis suis fuerit. Nihil enim
pesset nisi praeiudici, vel inchoare vel pueriore Pna pna populi que huius
etiam quoniam et sic fman. Status impiorum, una censu rebore non ppa
Qua magis equum est. Magis est edictiois. Sui, omnisque petens deinde
pesset simul ac natus et sic fman, quicunque reor gubernaculis ad
publica moderantur. Nunc illud tenet etiam, totiusque actus ista antiquitas, as
Divinam humanamque scientiam praeparatione studium, illa in bonum
dis actibus huiusmodi ac liberalibus curae, nec parvis nec insignibus. Profecto ut
quidam Dni Dandi fman in Pna & Regni Pna, ut ante eorum bellum
& turbula, mansuetas, tranquillitasque Aluas negligere. Idem ipi, erga toga
tam & sagutum Pna de amore, genus in cunctis idem & Pna. Al
sa immoque sub ipsum fidei Catholica. Regi Dandi in auspiciis Almor
na nobis, inde. Alia Alia medi Alia, Sicut in gymnasium Alia Alia
Pna pna & Pna, implorata, sapientia, Alia Alia Alia Alia Alia Alia Alia Alia

Royal charter granted Lwow University by King Jan Kazimierz in 1661.

was established. Somewhat later courses in philosophical and law studies were opened and in 1776 theological studies were introduced.

Thus a loose group of University courses were founded in Lwow. They were in reality a continuation of the Jesuit Academy, rising in the same spot and using the age old collections made by the Jesuits.

The Jesuit library called forth admiration from its new masters.

Reports sent back to Vienna state that the book collection was beautiful, well organized and "very useful to the projected University."

Death interrupted Maria Theresa's reorganization of Lwow University.

On October 21, 1784, Joseph II signed the foundation decree under the title of Josephian University.

The University was composed of four faculties with the right to grant academic degrees.

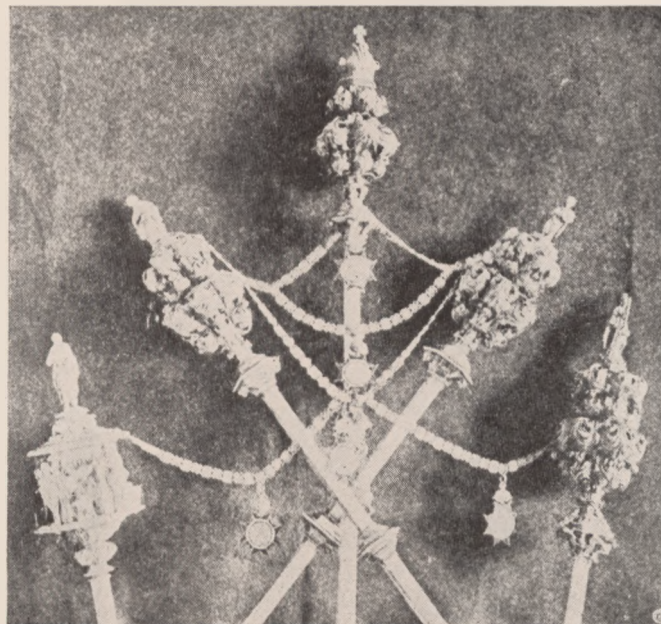
The first rector of the University was Father Wacław Betonski, Bishop of Przemyśl.

Latin was the official language. This
(Please turn to page 10)

(Please turn to page 10)



Bishop Ignacy Krasicki, famous 18th century poet,
graduated from Lwow University.



Insignia of the four Faculties of Lwow University.

(Continued from page 9)

was necessary because no one understood or wished to understand German. The Chair of German literature had to be finally abolished in 1852.

With the death of Joseph II came the end of the second phase of the Lwow University. A new direction was set by the higher authorities and Joseph's reforms were removed. Archbishop Ferdynand Kicki was placed at the head of the Faculty of Theology which had not been permitted during Joseph's reign.

After the third partition of Poland and the heavy drain of the Napoleonic wars, the University treasury was empty. Although the Emperor sanctioned the University it had to limit its activities. It continued as a College with Faculties of theology and surgery. In 1806 the Emperor allowed the University to grant titles of doctor of theology and philosophy. From 1805 to 1817 the college performed the duties of an University.

During this time the attendance grew. There were more students than at Cracow University.

In 1809 when Polish troops were entering Galicia, the Lwow University students joined the ranks of Polish divisions. In the second semester more than half the benches were empty.

The peace of Schonbrunn reduced the territory held by Austria. The University was restored. A number of chairs were established, among these a Chair of Polish law in 1811.

In Vienna on August 7, 1817, Emperor Francis signed a decree recreating Lwow University.

The "Evil Spirit" that persecuted the University was Baron Krieg von Hochfelden. While other professors demanded the teaching of Polish history and literature and language and the recognition of Slavic languages, Krieg exerted all his effort to introduce the German language and to remove Latin entirely. Krieg's proposals were accepted in Vienna.

On the whole the first years of the University passed smoothly. The most enlightened men of that generation were interested in the welfare of the University. Jozef Maksymilian Ossolinski, Joseph Dzierzkowski, were the link between the professors, from all parts of the Austrian monarchy and the Polish students. The best loved of these was Franciszek Stronski, Professor of Philosophy and later curator of Lwow University Library. He was a father and a friend to the Polish students, who found themselves surrounded by German professors.

In spite of the efforts of some of the professors it was difficult to hold the attention of students who in spirit were with those fighting for the freedom of Poland.

During the November uprising the school benches were empty again. Young men hurried to armed battle. This uprising was short lived. Austrian rule was re-established. Under Krieg "sad, difficult and oppressive times came to Poland. The spectre of evil hung over the unfortunate country."

1833 marks the epoch of conspiracies in the University. Secret organizations like "Friends of the People," "Polish Mining," "The Organization of Polish Peasants," "Young Sarmatians," "Free Men of Halicz" were being formed in the country with a large following among University students, not excluding students of Orthodox faith.

The police discovered the trail of these organizations. Students were arrested and imprisoned and many of them were dismissed from the University. On the whole, though secret meetings and conspiracies were held openly in the halls and lecture rooms of the University, the professors closed their eyes and ears to everything.

"The Spring of Nations" in 1848 found the University in a feverish state of revolution. Among the mottos shouted the loudest was the call for freedom of education.

The old Austrian system was crumbling and in its place was rising a new robust life, full of faith in freedom and ideals of the brotherhood of peoples. Lwow University stood in the light of freedom. The sound of armor was heard and national ideals so long suppressed rang out again. Professor Stronski, led the students who demanded that Polish be used in schools, government offices and courts.

Two days later, March 21, 1848, Governor Stadyon distributed arms to the students. The University Legion was formed, six companies of 180 men each. On April 6th, the University was granted autonomy by the Austrian Government and on September 29, 1848 the Minister of Education decreed that Polish be used to teach and lecture in the University.

These propitious events took a different turn. On the memorable night of November 1, 1848, the University Legion fully armed took its position on the barricades of Krakowska Street. By morning of November 2, the University was swept by flames set by fire rockets. Rescue was impossible. Professor Stronski by endangering his life saved 13,000 volumes out of the 51,082 books and documents in the Library. The University buildings were razed to the ground. Lectures stopped for a semester. They were resumed on January 1850 in the City Hall.

The buildings used as military barracks were given to the University on January 2, 1851. 1851-1860 was a trial period. German was used as the official language. A chair of Ruthenian was created in 1849. Polish was used only for theology, and for a separate Chair of Polish literature established in 1856 under Antoni Malecki. But the struggle to reinstitute Polish continued and slowly from 1867 the number of Polish lectures began to increase. In 1870-46 lectures were given in German, 13 in Latin, 13 in Polish, 7 in Ruthenian; in 1874-59 were given in Polish, 8 in Ruthenian, 13 in Latin, 11 in German;

(Please turn to page 11)



Rare Gradual from Tyniec (15th century).
Lwow University Library.



Reading Room of Lwow University Library.

When British Prisoners Honored Polish Martyrs

SEPARATED from Poland for five and a half centuries, Upper Silesia has remained Polish to the core. Neither foreign dominion, nor decimating fires, famines or plagues could destroy the Polish character of Poland's oldest province. Despite Frederick the Great's ultimatum that "Silesia must be Germanized," despite the vicious persecution of everything Polish, the Silesian peasants and workmen have preserved the Polish language in all its archaic purity and proved their love for the land of the White Eagle by staging three bloody insurrections, the third and greatest of which in May, 1921, brought about the reunion of Upper Silesia with the mother-country.

When the Germans invaded Poland in 1939, the Silesians made them pay dearly for every mile they advanced into Polish territory. Germany retaliated by incorporating the entire province of Upper Silesia into the Reich. With their usual brutality, the Germans deported thousands of Poles into the Government General, threw thousands of others into concentration camps, turned the rest into slave labor, and inaugurated a veritable reign of terror. But the rugged men and women of Silesia struck back. Sabotage, guerilla warfare, mysterious disappearance of German officials—were only a few of the headaches haunting the self-appointed bearers of the new order. The Hanses and Fritzes who had goose-stepped into Katowice, capital of Silesia, with such smug

self-assurance in the fall of 1939, were losing some of their confidence and acquiring an acute case of nerves.

So, last spring, when a group of Polish saboteurs were caught in Bielszawice, a quiet mining town in Upper Silesia, they were sentenced to immediate death by hanging. And to teach the population a much needed lesson, they were left on public display for twenty-four hours in the quaint old market place. It so happened that evening that a company of British prisoners of war was returning to camp after a day's hard work. Their way led across the market place where silhouetted against the gray sky, hung the stiff bodies of the unfortunate Poles. After a gasp of horror at the ghastly sight, the commanding officer of the British prisoners gave the order to his men to salute the Polish heroes. Forgetting their fatigue, the British drew themselves up to attention, saluted and marched past the dead men in parade step.

News of this tribute spread to all parts of Poland. The underground press reported the incident and a wave of pro-British feeling swept the country. By every means at their command the Poles showed their gratitude to British prisoners of war, many of whom are stationed in Poland. They showered them with flowers and shared their own skimpy rations with the undernourished Tommies. Recently exchanges of prisoners of war have brought ample confirmation of the enthusiastic attitude of the Poles toward the British.

AMAZING FACTS ABOUT POLAND'S UNDERGROUND PRESS

(Continued from page 3)

Then there is the case of the paper discovered by the Gestapo, with the result that the entire editorial office was blown up and the editor and other members of the staff shot. The next issue was run off on a stencil, on wretched paper, uncorrected, but bearing the following words of apology: "We sincerely apologise to our readers for the fact that owing to circumstances outside editorial control the present number does not appear in the format to which readers are accustomed. . . ."

The editor of another paper printed an article listing all the crimes committed by "Governor-General" Frank, adding that after the war he would be sentenced to death by an international legal tribunal. "It gives us genuine pleasure to inform our readers that we have sent a copy of this issue by registered post to Governor-General Frank in Cracow. We take the view it would not be fair not have him acquainted with all the charges the Polish Underground will bring against him after the war. Maybe he has sunk so deep in crime that he has lost sense of measure and is acting in ignorance of his guilt."

JAN KAZIMIERZ UNIVERSITY IN LWOW

(Continued from page 10)

1906—105 lectures were given in Polish, 19 in Ruthenian, 14 in Latin and 5 in German.

In 1894 the faculty of Medicine was opened.

When Poland was fighting for her liberty in 1918, the students of Lwow University rushed to armed battle and fought heroically for the freedom of Lwow. The Polish Government took charge of the University late in 1918 and renamed it after its founder, Jan Kazimierz. Five faculties were established: Catholic theology; law with three options: economics, administration or diplomacy; medicine with a school of pharmacy; humanities; and mathematics and natural sciences. In 1926 the University library had 319,533 volumes and 1,149 original manuscripts. There were also collections of incunabula, coins and medals. The University acquired 25,000 volumes as a gift from Prince Adam Czartoryski. These books were originally owned by his brother Witold Kazimierz Czartoryski.

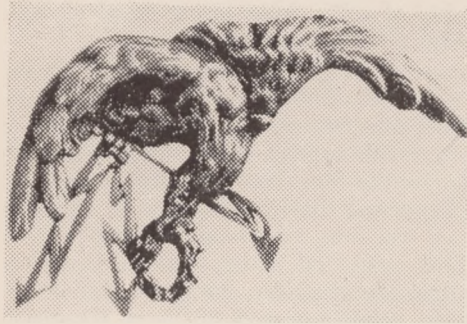
For the Academic year of 1933-34 there were 6,677 students registered at the University of whom 2,117 were women.

This war has placed Lwow under the occupation of both Russia and Germany. From 1939-41 the University still functioned. But the Russians as the occupying authority introduced the Soviet system of education. On July 4th, 1941 the Germans entered Lwow. The Jan Kazimierz University was closed, 22 professors of the University and Technical College were arrested. They were deported to some unknown destination.

"The Poles do not need Universities or secondary schools, the Polish territories are to be transformed into an intellectual desert," governor general Frank declared.

Through the trials of time and fate the Lwow University retained its Polish character. Polish was the Lwow University under the Jesuits, Polish it is now when the Polish language is banned from its lecture halls. Under cover of Germanization runs the Polish life, preserved in student organizations and underground societies. When finally freedom is regained the Jan Kazimierz University of Lwow will be among the first to open its halls to the future generations of Polish youth.

FLYING WITHOUT COMPASS



THE squadrons were flying in the blue sky over France. As they approached 20,000 feet "Operation" spoke. Reception was clearer than ever before. The Polish controller was giving the usual instructions.

"Twenty bandits approaching you North." Then he added in Polish. "*Uważajcie! Dwadzieścia bandytów idzie na was z polnocy.*"

The English squadrons were 5,000 feet higher. The wing commander ordered an attack. Operation spoke again. "Other bandits over Boulogne." The wing commander changed his order.

"Only the first squadron attacks, the second will escort." Marek cursed, he would have preferred to attack.

They fell on the Germans. Two fireworks appeared. They were Messerschmitts.

"Planes behind us," a pilot reported "Many planes. They're coming at us."

"Watch out in back of you." the commander cautioned. "Turning left. Turning left."

Operation broke in then, "Many bandits over Calais at 30,000 feet." A minute later they saw shining points streaming from Calais.

"Those are Messerschmitts. They're attacking."

A plane suddenly spurted smoke and dived with a piercing scream. It was not a Messerschmitt.

Just then a shower of bullets spattered on Marek's wing as a white cloud ate up his plane. Hot needle points pricked his face, and the steering rod jerked out of his hand. He immediately shut off the gas, turned over, waited a few seconds, turned over again and opened the gas. The cabin was full of smoke and dust, but the motor worked smoothly. Daylight shone through the holes made by the bullets. Marek looked behind him and saw three Messerschmitts flying straight at him. In the distance he saw his squadron fighting. They could not help him. Blood covered his hand and he began to feel faint. Swiftly he turned his plane toward home. Through half blinded eyes he saw that some of the dials were gone, but he did not have time to check them now. The Messerschmitts were almost on top of him. Just then he noticed a cloud hanging below. What a golden opportunity. The plane disappeared into the nimbus as a shower of bullets burst from the Germans. A cracking sound reached Marek's ear. Something else gone in the back. He did not think about that now.

The soft fog spread around his ship. They could not get him here he thought with satisfaction. He could examine the damage done. He noticed that his compass was broken, but this did not worry Marek too much, he had a lot of experience in blind flying. The altitude meter was intact. He set his plane straight and slowed down to 180 miles. His head felt heavy and Marek became alarmed. I must be seriously wounded, he thought. But where? He felt no pain in any part of his body, only his face burned and stung, and that's probably where the blood came from. He felt better after coming to that conclusion. The whole board was demolished. Everything was gone except the altimeter. The glass must have cut his face.

Marek saw that he was losing altitude. They fought above 22,000 feet he remembered. Then he dived into the clouds.



Drawing by Andrzej Wart
Polish fighter pilot.

That must have been about 19,000 feet. Now he was at 10,000. His head began to clear, he even began to see the humorous side of the whole situation, and had a strong desire to share it with some one. That's when he thought of Operation.

"Hello Woodland, Hello Woodland," he called Operation. "Red one calling. . . ." He switched to reception. . . . Silence. Marek repeated twice, three times. No answer. This is when he remembered that he did not hear one sound from the time he was attacked. He tried calling again. No use, the radio was gone.

At 1,500 feet he got out of the clouds. The whole horizon was filled out by the ocean. Not a sign of land. In what direction was he flying? Without a radio or a compass he was helpless. If the sun were out, it would be easy, but the same clouds that saved him were now shutting off the sun. It would be impossible to rise above them.

Marek circled around a few times, then he flew straight ahead. He was perspiring under the helmet as he comprehended the full horror of his situation. His brain began to function. The only way out is to climb above the clouds to the sun, fly northwest and in twenty minutes he would be safe in England.

He climbed up. The soft familiar darkness swallowed him. 6,000 — 9,000 — 10,000 feet. He began to feel weak again, so he switched on the oxygen. Never before had he climbed so slowly. The clouds stretched up to 19,000 feet, that meant that he had 9,000 feet more to climb. After long seconds the machine reached 12,000 feet. His mind began

to wander. What's the matter with me anyway, he said to himself. Suddenly a bright thought pierced through his befogged brain. No oxygen. The oxygen bottle was probably broken. Panic overcame his weakness temporarily. Here he was in the middle of the ocean without compass, radio or oxygen. The fog and clouds were thicker than ever. The motor hummed unconcerned by his predicament as the plane slipped through the fog. The wind behind the window was rocking him to sleep. For a moment he had the impression that he was in a forest of rustling trees. In one of the clear moments he noticed that the altitude was 15,000 feet. "Fifteen thousand, fifteen thousand" he repeated as he read the altimeter. He bit his lip. 4,000 more. He must make it. That was the only way out.

Consciousness was leaving him as he climbed to 16,000 feet. Desperately he began to count. It seemed to him the only way to keep his brain working. His voice sounded strange, it seemed that someone else was counting. "I am flying, I am in a plane" he said. "I must not drop off."

He woke up with a start in the midst of a strange shrieking sound. At first he was dazed. He couldn't understand what was happening. Suddenly he snapped back. He had lost consciousness. The plane was speeding down into the water.

In an instant the gas was shut off, the side steering straightened. Marek then tried to lift the nose, but the steering wheel remained stiff. Desperately he began to look for the auxiliary wheel. At first he could not find it. His hand clutched feverishly at the useless apparatus. Finally he found the wheel and began to turn it. Will he be in time?

The wheel was turned to the limit, then he seized the steering rod with both his hands. It gave. The roar of the wind increased as the plane sailed up again. "Will the wings hold out?" he thought. They must.

The plane entered the dim haze. His speed was 280 miles per hour. The motor worked smoothly. Marek gave up the idea of climbing, instead he lost altitude. The ends of his wings swam in the heavy mist, and the nauseating feeling left him.

The altimeter read 6,000 feet. Physically he felt perfect. Who knows what will be there below when he leaves the clouds. Maybe he'll see land. He held onto that thought stubbornly. At 1,500 feet he was out of the clouds. He shuddered as his eyes looked at the boundless body of water. No sign of land anywhere. It occurred to him to finish the whole thing right away. It would not last more than 5 or 6 seconds. This idea fascinated him for a while, but the natural instinct of self-preservation won out. He turned to working out some logical plan.

The plan he arrived at was simple. He would take any direction and fly straight for 15 minutes, if within that time he did not see land he would turn 90 degrees and fly ahead until he ran out of gas.

He started by flying parallel to the waves. The plane was flying just under the clouds. He thought that Operation must be following him on the board. They must see how he is straying and yet they cannot help him.

The plane was being buffeted by the strong wind. The clouds were shedding water as far as his eyes could see. His

(Please turn to page 14)



Welcome at the home base.

FLYING WITHOUT COMPASS

(Continued from page 13)

tired eyes seemed to make out land. Then the form disappeared and reappeared at his left and at his right. Marek stopped believing his eyes. Soon he began to see smoke stacks and then he heard a warning voice. "Don't fly that way." "Where am I to fly then?" he asked. The sound of his voice brought him back to reality. It was time to make the 90 degree turn. This would be easy since he was flying parallel to the waves.

He hesitated before turning. Should he turn right or left? The moment of uncertainty passed swiftly; he followed his instinct and turned right. A mirage appeared in front of him, but he no longer trusted his eyes. He was a bit worried about the gas. How long would it hold out?

He was flying five minutes by the new course, when again the land mirage appeared. This one did not disappear and move away as the others. It changed and grew into a high cliff. Marek closed his eyes for a while. He must get a hold on himself. He clenched his jaws and opened his eyes slowly. The cliffs remained. This time they were nearer. His joy was boundless. The tired feeling disappeared and warmth spread through his limbs. He did not think whether the shore was French or British, all he thought was that this was land. He could rest at last.

As the plane approached the shore Marek began to recognize the port, the little red church and the radio tower. Five miles to the north there was an airfield. His gas should hold out.

In five minutes the plane was rolling on the asphalt. The wild joy that had overcome him when he saw that he was

safe left him. As the motor slowed to a stop he suddenly felt weak and sleepy.

"The first thing I do when I land on my home field," he thought, "is to go straight to my room and sleep."

A Flight Lieutenant approached the plane. "Are you from field X . . . ? That's very good. They were asking for you."

Marek noticed that the wind was very strong. "How was flying today?" the Englishman asked.

"Very good."

"Good!" the Englishman answered as he examined the battered ship.

"The head wind was pretty strong," Marek added as an explanation for his late return.

"Yes, the wind was strong," the Englishman affirmed. He studied Marek's scratched face.

"Won't you come into the Watch Office while they fill your tank." The Flight Lieutenant continued: "You'll have time for a cigarette and a cup of tea."

"Thank you very much. I should enjoy that," Marek answered.

"Good."

Marek then climbed out of the machine with effort. The head wind from the north made walking difficult, and his legs felt stiff and cold.

The tea and cigarette did not taste good. Marek's hand shook so that he spilled half of the liquid on his knees.

"You must be a bit tired," the Englishman said with a shade of sympathy in his voice.

"Just a bit," Marek answered smiling a little.

POLISH SCIENTIST'S NEW THEORY OF THE UNIVERSE

(Continued from page 7)

The retrograde rotation may be simply explained: because the masses of satellite which are closer to the planet have greater velocity than the more distant, the retrograde tendency is generated and can overwhelm the direct rotational tendency.

The regularity in the distances of the planets from the sun, according to the Titius Bode Law, may be explained by the critical value of the so-called in aerodynamics Reynolds Number which influenced the starting of the planetary vortices. By the Reynolds Number of a fluid in motion, aerodynamics understands:

$$R = \frac{\text{velocity} \times \text{density} \times \text{distance}}{\text{coefficient of viscosity}}$$

The calculation of the distance of a planet by this formula gives a natural explanation, based on the laws of mechanics, of this mysterious law hitherto unexplained.

Aerodynamic Cosmogony is able to give not only a satisfactory descriptive cosmogonic picture of the world.

In the paper published in the October issue of the Bulletin of the Polish Institute of Arts and Sciences, some computations concerning several problems of our solar system were made, based on the vortex hypothesis and some simple laws of vortex mechanics.

Although we do not know anything about how the sun nebula looked, and although we have only remnants of the nebula in the form of condensed sun planets and satellites, the results of computation are in amazing accordance with astronomical observations.

The calculated problems are.

1. The Newton Law of gravitation.
2. The Titius Bode Law of planetary distances from the sun.
3. The inclination of planetary axes, as a resulting action of the sun vortex, which has a tendency to get the planetary axis parallel to the sun axis, and the action of the extra solar vortices deflecting the axis from this position.

4. The inclination of the orbits of the planets. The sun vortex strove to bring the orbit of the planet parallel to the sun's equator. The Milky Way vortex deviated from this position. The resultant position was calculated.

5. The time of revolution of the planets. The planetary vortex has the "direct" tendency of revolution. But the Planetary vortex is at the same time a part of the sun vortex, which creates the opposite "retrograde" tendency of revolution, giving a braking effect to the direct tendency, thus slowing the time of revolution.

6. The resultant time was calculated, by means of the same formula, not merely for the planets, but also for the sun and the moon, giving very satisfactory figures. That proves that the model after which the planets are supposed to be generated from the sun vortex, may be applied to the generation of the satellites from the planetary vortex, and to the generation of the sun from some larger cosmic vortex.

The results of these computations, which are in close accordance with the results of direct astronomical observations, seem to prove that the aerodynamic Cosmogony can not be far from the truth.

The author is working on the solution of some other astronomical problems. The analogy between the macrocosmos and microcosmos, or between the celestial system and the system of the atom, provides the hope that the vortex theory of matter and energy may produce some interesting results.

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Cover: A Polish paratrooper and his chute.

POLISH MINISTER JOINS BRITISH ARMY IN ITALY

Jan Gawronski, former Polish Minister at Vienna, has recently had some exciting experiences. Since the outbreak of the war Gawronski, whose wife is an Italian, has lived in Rome, hidden by Italian friends.

After the Germans occupied Rome on September, 1943, Gawronski decided to escape immediately and, accompanied by his son, took a train to Pescara. The train was packed with demobilized or simply deserting soldiers, so that Gawronski was forced to travel on the roof, which had the advantage of enabling him to avoid Gestapo checkups. The Italian soldiers' sole desire was to get home as quick as possible.

At Mandella, beyond Tivoli, the Germans stopped the train and began investigating, which made things too hot for the Gawronskis. Wishing to avoid Gestapo interrogation they left the train and started into the mountains, sometimes by carts and sometimes on foot, eventually reaching Termoli where again they came upon the Germans.

All went well because the Germans took them for Italians, treated them like former Allies, that is forced them to do manual labor. The Germans were preparing feverishly to defend Termoli.

On October 2nd they were awakened by noise, yells and shots. The British were invading. It was 5 a.m. Gawronski ran into the streets hearing the clatter of machine guns and rifle shots. British soldiers, wearing typical steel helmets, were running down the street. The commandos had struck at dawn. To ascertain whether they were really English, the Polish diplomat did something rather childish. He shouted in English to a passing soldier: "Are you British or German?" The reply was "British," but if it had been a German reply it certainly would have been less polite. The next day Gawronski reported with his son to a British captain, who by coincidence was a friend of his from London. They joined the unit, got field uniforms and arms. They took part in several engagements with the British.

During his stay in Teheran, Minister Strassburger had a long conference with the British Minister and Iranian officials, discussing questions connected with the Polish refugees in Iran. After visiting Polish institutions, Strassburger inspected the Polish refugee camps and the Teheran school of Sisters of Nazareth where fifty Polish children are being brought up. The expenses are being paid by voluntary contributions from the Polish Army in the Middle East.

POLES TO WEAR CRUSADERS' CROSS

The Polish Army in the Middle East, which will one day attack Hitler's South European fortress, will go into battle wearing the cross of the crusaders on their field caps together with the traditional Polish eagle and Army-badge. The permission to wear the crusaders' cross was given to the troops by General Sosnkowski. The Polish Commander permitted its use at the request of Father Borkowski of the Salvatora Franciscan Convent in Jerusalem. The Padre stressed the fact that the onslaught of the Polish troops in the invasion of German occupied Europe will be tantamount to a Holy Crusade. The crusaders' cross is the emblem of Jerusalem. It is a big cross with four miniature crosses embossed between its arms across the center of which appears the word "Jerusalem."

UNDERGROUND POEMS RELATE WARSAW WOES

"Kultura Jutra" is one of five underground monthlies appearing in Poland, devoted solely to literature, poetry, and art. Some time ago the editors announced a contest for a poem on Warsaw, the theme being "Among all European capitals, Warsaw occupied an exceptional position in history and legend."

Many compositions were received and consequently prizes were raised from 1,000 to 1,500 zloty, the first prize of 700 was awarded for a poem entitled "Psalm," the second prize was divided into four parts of 200 zloty each.

The editors indicated that considering exceptional difficulties connected with the distribution of underground papers and the sending in of contributions by secret channels, the number received was exceptionally large. The author of the prize-winning contribution will receive the prize by the same channels.

The poem "Psalm" describes the ghetto battle and mentions a number of historic places in Warsaw such as Plac Krasinski on the frontier of the Jewish and Polish districts where the German artillery that bombarded the ghetto was emplaced. The monument of Kilinski, Kosciuszko's political companion, who organized the rising of the Warsaw workers against Russian authorities, stood there. The monument was destroyed by the Germans.

The poem also describes the conflagration of Muranow, the Jewish quarter which gets its name from the Italian town, and Miodowa street on the Ghetto border with its palace, the former seat of the Warsaw judges.

The author describes his own experience against the background of the ghetto battle and Warsaw ruins and mentions the stone statue of the Madonna, the Ancient Church in Geeta street built as a memorial to Sobieski's Vienna victory, and writes that just as Madonna's heart was shot through, so many Warsaw mothers died.

Warsaw, the author says, is the leader of fighting towns and its bombardment was the beginning of a great world war, but Warsaw paid dearly for her fame.

POLES IN LONDON START UNION OF WAR PRISONERS

Recently a meeting of former prisoners of war in Germany took place at the White Eagle Club in London.

Generals Kukiel, Kopanski and Malinowski attended.

Aleksander Janta welcomed this first gathering of former Polish prisoners of war and paid homage to those who perished in confinement.

A British ex-prisoner who was in a German camp on Polish territory told how the Poles, in spite of the greatest difficulties and threatened by severest punishment, tried their best to help the British.

British war prisoners who were in Poland will never forget the Poles' kindness and the heroism of the Polish Nation will remain forever in their hearts.

General Kukiel said: "Your great merit is that you endured all these hardships as worthy sons of your Motherland to fight again for her freedom."

Kukiel promised help for Polish prisoners in Germany will be increased. At present every Polish prisoner receives one food parcel monthly besides clothing.

A Union of Polish ex-prisoners of war in Germany was founded and editor Marian Piotrowski was elected chairman.

1,000 GERMANS KILLED BY POLES

More than 1,000 German soldiers have perished in a series of train wrecks in central Poland, as a result of recent guerrilla sabotage. The Warsaw-Berlin express was blown up at Szymanow, and a transport carrying reinforcements to the Russian front was derailed at Skrudka. A third German express train was destroyed at Celestynow.

Among those executed in Warsaw was Jonina Aszkenazy, daughter of Dr. Simeon Aszkenazy, Poland's delegate to the League of Nations for many years and one of that country's greatest contemporary historians.

TO HONOR POLES WACS RECRUIT NEW COMPANY

An unique recruiting campaign in honor of the people of Poland has been undertaken by the Army in Philadelphia, according to an announcement made by Captain Charles F. Frizzell, Jr., officer-in-charge, WAC recruiting in the Philadelphia District.

Captain Frizzell said that a special company of members of the Women's Army Corps is being formed in honor of "the unconquerable people of Poland who are fighting Nazi aggression." The company is the first of several contingents which will be recruited and dedicated to other European nations which seek to throw off the German yoke.

Women between the ages of 20 to 49 inclusive, are eligible for enlistment. The contingent will be recruited as rapidly as possible. All nationalities will be represented, although Polish-American women are expected to rush to the colors as a result of campaign.

Captain Frizzell said the company will train at Ft. Oglethorpe, Georgia. During the recruiting campaign members of the company will participate in special ceremonies in Philadelphia.

The first of these celebrations was held February 2 in the Auditorium of the Gimbel Store in Philadelphia.

The Polish-American community in that city was represented by a group of dancers and singers in native dress. The entertainers were under the supervision of Mr. and Mrs. Thomas F. Deren, of 4563 Bermuda Street, Philadelphia. Mr. Deren is manager of the Polish Varieties Radio Program of Radio Station WHAT.

Women who want to join the company in honor of the people of Poland can apply for enlistment in Room 803, Custom House in Philadelphia, or Army Recruiting Stations in Allentown, Reading, Wilkes Barre, Hazleton, Pottsville and Scranton.

BOMBED POLES BACK IN POLAND

Many Polish workers injured in the Royal Air Force bombing of German cities have arrived in Poland. Polish losses resulting from air attacks increase constantly because German authorities transfer the Poles from agricultural work to the factories most exposed to bombing.

In 1942 two-thirds of Poles employed in the Reich worked in agriculture and one-third in industry—at present more than half of the Poles at forced labor are already in industry.

MIKOŁAJCZYK

Prime Minister of Poland,
interviewed by Vernon Bartlett

TWO nations, geographical neighbors and each pledged to avenge the appalling sufferings inflicted upon their peoples by a common enemy, Germany, have no diplomatic link between them.

These two nations, the Soviet Union and the Polish Republic, are allies of Great Britain.

Their differences must hamper the effectiveness of the war against the Germans, with their long and lonely lines of communication to their Eastern front. They distress us in Britain, and we should be glad and proud if we could make some contribution towards their solution.

It is in the hope that frank discussion between men of genuine good will can concentrate attention on the future that I approached Mr. Mikołajczyk, Prime Minister of Poland, and leader of the Polish Peasant Party. A sturdy, broad-shouldered man of immense physical strength—in build and movement not unlike Mr. Churchill.

My questions to him were direct; so were his replies. Here they are:



QUESTION—"Will Poland become a party to the recently signed Soviet-Czechoslovak Treaty?"

ANSWER—"She has not yet been invited to do so, and the text of the treaty makes it clear that the initiative must come from these Powers. But I can say that Poland would welcome an invitation, which presupposes the resumption of Polish-Soviet diplomatic relations.

"If Poland did sign, however, she would want to make it quite clear that her signature was in keeping with the existing alliance with Great Britain and plans for a wider European arrangement for the maintenance of peace."

QUESTION—"To what extent is the Polish Underground Movement harassing German communications with the Eastern European front, and will it co-operate with the Soviet forces when they reach Polish territory?"

ANSWER—"This question goes straight to the heart of Polish-Soviet difficulties.

"Four months ago the German Governor-General, Frank, tried to make advances to the Poles, hoping by promises of better treatment to stop our military activities against the Germans and to direct them in future against the Russians instead. Although two-and-a-half million Poles and Jews have already been massacred and more than 300,000 of them are imprisoned in concentration camps, he met with a determined refusal and Himmler himself has subsequently visited Poland to supervise fresh measures to crush the resistance.

"But there existed a difference of views between the Russians and ourselves on this resistance campaign. They very naturally would have liked us to come out into more open rebellion, since that would be most helpful to them. We considered it premature to do so since no military commander launches his main attack until the situation is considered ripe from the strategic point of view and since reprisals are so frightful that our fighting strength might be crushed before the time came for the supreme, general uprising throughout occupied Europe.

"Meanwhile the Polish Underground Movement concentrated on sabotage and the 'liquidation' of those Germans whose record is particularly abominable. But the fact that the

moment of the general uprising is now near at hand will, I think, remove this difference between the Russians and ourselves.

"As for the second part of your question, I can say unhesitatingly that, provided complications arising from demands to certain Polish territories could be removed, we would gladly, in execution of the common strategic plan, co-operate with the Russians when they reached Poland."

QUESTION—"Which of the old political parties are represented in this Underground Movement, and how much co-ordination is there between them and your Government here?"

ANSWER—"While Warsaw was still being bombed the leaders of the principal parties planned the organization of the resistance movement. Their parties, representing the immense majority of the Polish people, are the Peasant Party, to which I belong; the Socialist Party, the National Democratic Party and the Christian Labor Party. Those original leaders have been killed, but their organization carries on.

"The Government maintains the closest touch with this Movement. We have a Political Representation—a kind of 'Shadow Cabinet'—in Poland under the control of a Minister Delegate who is at the same time a member of the Polish Government. This Political Representation met, for example, immediately after the death of General Sikorski and made recommendations, which coincided with the views of the President of the Republic, as to the formation of the new Government.

"We can therefore claim that the Government is a representative one, but I would take this opportunity to repeat the pledge that democratic general elections will be held immediately after Poland has been liberated."

QUESTION—"On what basis do you envisage a solution of the problem of Eastern European security?"

ANSWER—"The conferences at Moscow and Teheran emphasized the need for a new international organization to enforce peace. I fully agree.

"Marshal Stalin has declared that he wants a strong and independent Poland as an additional defense against Germany. I want a friendly and strong Russia for the same reason. We Poles attach great importance to our alliance with Britain, since it brought Britain to our defense the moment we were attacked. But we also want a strong and sincere Anglo-Soviet understanding, for that is a great safeguard of European peace.

"We Poles share with the British people the hope that the United States of America will continue to interest themselves in the affairs of Europe and that, with the friendly co-operation of all interested countries, large and small, we may succeed in establishing a system that will guarantee their common security and assure them their freedom."



Mr. Mikołajczyk speaks as a man who means what he says. He has the slow movements and the shrewd common sense of a peasant and the son of peasants. On occasions he will work the whole night through and not show signs of fatigue during the following day.

He gave me the encouraging impression of a man who appreciated the magnitude of the task ahead of him and who, despite his personal modesty, would tackle it with confidence. He is not likely, I imagine, to forget that the future is more important than the past.