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forming an institute with such a wide non-specialized field of activities proved unfounded, since 1) the present-day complex research very often deviates from the traditional division of science into specialized fields and 2) the administrative section of the Institute is small and would have to be considerably expanded, involving greater costs and more employees, if the Institute were divided into 4 to 6 specialized units. The Institute, which has 8 scientific stations organized on a federative basis, deals with three subjects, i.e., mechanics, electrical engineering and industrial physics. In the beginning the Institute experienced considerable difficulties due to the shortage of adequate premises. With the new building this problem has been solved to a certain extent, but a lot still remains to be done so as to enable workers of the Institute to carry out their work which is both theoretical and experimental. The Institute publishes five periodicals which are also well received abroad. A graph showing the increase in the personnel of the Institute and a graph showing the increase in the scientific equipment of the Institute are included in the article. Closing his speech, Malecki also pointed out that international cooperation has been developed and that many of the results of research carried out by the Institute have found practical application in the national economy. Professor J Groszkow-
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sai described the scientific activities of the Institute in the field of electrical engineering, which is carried out by three departments, viz, the Zakład Teorii Łączności (Department of Communication Theory), Zakład Elektrotechniki (Electrical Engineering Department) and the Zakład Elektroniki (Electronics Department). The Department of Communication Theory, which is headed by Professor S. Manzarowski, has 5 laboratories. The Pracownia Teorii Telekomunikacji i Obwodów (Laboratory of Telecommunication Theory and Circuits), headed by Professor T. Lenkowski, worked on the problems of radio-wave amplification, on transmission and cross-talk telecommunication cables with symmetrical lines designed for 120-fold telephone systems (Doctor T. Nowicki) and on the theory of designing rectifiers and separating filters (Master Cz. Norek and Master O. Przesmycki). The Pracownia Teorii Anten i Obwodów Ultrakrotkofalowych (Laboratory on the Theory of Antennas and Ultrashort Waves Circuits) headed by Master A. Turski, worked on problems of electrical field theory, transmission lines and microwave antennas. In this field important results were achieved. Work on the problems of unstable states in wave guides and antennas, the influence of conductivity on the stability of electromagnetic field and the application of the conformity sampling methods for the calculation of lines was carried out by Master S. Przeździecki, Master E. Pelzner and Master J. Krzyż-

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owska. The Pracownia Teorii Propagacji (Propagation Theory Laboratory) headed by Professor S. Manozarski, worked on the propagation of electromagnetic waves in respect to 1) change in the electric parameters of the earth; 2) turbulence of ionosphere and troposphere; 3) forecasting solar spots; 4) use of ionospheric waves transmitted by directive-array antennas; 5) transmission range of artificial earth satellites; and 6) magneto-hydrodynamic waves. Last year, due to the cooperation with the Ośrodek Badawczy Łączności (Communication Testing Center) in Zegrze, new possibilities for the research into outer ionosphere with the echo sounding method were worked out by Professor S. Manozarski and Master J. Molski. The Pracownia Teorii Radioteknik (Radio-Engineering Theory Laboratory) headed by Docent R. Kulikowski, carried out research on the synthesis of optimum linear and non-linear automatic regulation systems (Docent R. Kulikowski), on H_1 -optimal matrix methods (Docent T. Cholewicki), on the application of impulse regulators (Docent S. Węgrzyn) and on the non-linear theory of the generation of oscillation in periodically-excited systems (Docent J. Szmit). The Pracownia Teorii Pola Elektromagnetycznego (Laboratory of Electromagnetic Field Theory) headed by Professor P. Szulkin worked on the 1) discontinuity in wave guides, theory of ridge

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wave guides and on Goubau surface waves (Professor P. Szulkin); 2) theory of information, especially in relation to the pickup of weak signals and certain modulating systems (Docent A. Seidler); 3) special problems of antenna theory (Docent K. Bochenek) and 4) application of ferrites (Master S. Lewandowski). The Department of Communication Theory organized several scientific conferences and monographic courses on radio-engineering and telecommunication. The Department which has about 200 workers publishes the following monographies: "Zagadnienia Techniki Fal Ultrakrótkich" and "Zagadnienia Elektrotechniki Teoretycznej". The Electrical Engineering Department started as an auxiliary section of the Division IV in 1954 under Professor P.J. Nowacki. In January 1959, this section was included in the IPPT with Doctor M. Nałęcz as its head. The work of this Department concentrated on magnetic circuits. Based on the original so-called "first harmonic" method by Professor P.J. Nowacki, the theoretical explanation of the compensation mechanism of errors in power test transformers was worked out (Doctor M. Nałęcz) as well as the theory of magnetic circuits fed by direct current and on modulation in transducer circuits (Docent R. Ładziński). In cooperation with the Zakłady Wytwórczy Aparatury Wysokonapięciowej A-1 (A-1 High-Tension Apparatus Plants) the production of the first

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series of these devices has been started. Doctor M. Nałęcz, Master J. Kulikowski and Engineer J. Dąbkowski designed a number of sensitive magnetometers which aroused great interest at the conference in Leningrad in 1958. Master H. Ziomecki designed a magnetometer with a range of 5,000-25,000 gauss and equipped with the Hall sonde. The Hall effect was also used in the design of a d-c test transformer. Master S. Topinski developed a thermometer with a range of 18-42°C and with the sensor built in at the end of the thin needle, which is used in surgery. The Pracownia Małych Maszyn Elektrycznych (Laboratory of Small Electric Machines) headed by Docent T. Śliwiński, developed a number of prototypes of a-c electric motors with continuous regulation of speed (Master J. Borkowski). The blueprints of a special type of induction motor with the stator fed by direct current (Master J. Kyparisis) have been completed, while a 400-kv, 2-kw electrostatic generator (Docent S. Nowicki) is under construction. Docent A. Górski and Master J. Moszczyńska worked on the problems of fuel elements. The purpose of their work was to develop electrical elements which would allow the replacement of chemical-fuel energy by electric energy. During its 5 years of existence the Electrical Engineering Department published 60 scientific

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works in Poland and abroad. The main task of the Electronics Department, which was founded in 1952 and is headed by Professor J. Groszkowski, was to carry out research on semi-conductor and ferromagnetic materials. The work is carried out in the Department's six laboratories. The Pracownia - materiałów półprzewodnikowych (Laboratory I - semi-conductor materials) carried out research on the chemistry of semi-conductors (under Master Z. Sołtys) and on the purification of semi-conductor materials and monocrystallization (under Master Z. Majewski). The Pracownia II - elementów półprzewodnikowych prostujących (Laboratory II - semi-conductor rectifying elements) under Master Z. Majewski worked on the technology and theory of germanium and silicon rectifiers, photodiodes, phototransistors and worked out the method of measuring the electric properties of germanium and silicon. The Pracownia III - elementów półprzewodnikowych wzmacniających (Laboratory III - semi-conductor amplifying elements) under Master W. Rosiński worked on germanium and silicon transistors. The Pracownia IV - półprzewodnikowych elementów oporowych (Laboratory IV - semi-conductor resistance elements) worked on thermistors and thermistor materials. The Pracownia V - materiałów magnetycznych (Laboratory V - magnetic materials)

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under Professor A. Smoliński, completed research on magnetic lag in silicon steels and on the technology of ferrites with rectangular hysteresis loop for computers. The Pracownia VI - układów przyrządów półprzewodnikowych (Laboratory VI - semi-conductor device systems) works on the application of diodes and transistors under Master St. Siekierski. During the period 1953-1959, the Electronics Department published 53 communications, 92 articles and 6 textbooks. The Department also organized the Krajowa Konferencja Ferrytowa (National Ferrite Conference) held in May 1959. Master Brochocki and Master Kobus take the credit for their work on methods of purifying germanium and on the methods for obtaining single crystals with low resistance. Master Z. Majewski, Master Brochocki and Master Z. Sołtys take the credit for their work on the problems of silicon microwave diodes on 3-cm waves. Master W. Rosinski, Master B. Mroziwicz and Master J. Pułtorak mastered the problems of germanium point and junction transistors with 15 watts and 150 Mc. The technology of high-frequency (up to 40 Mc p-n-p) alloy transistors was handed over to the Zakład Aparatów Matematycznych (Mathematical Apparatus Plant) and to the "TEWA" transistor plant. The technology of thermistor production was mastered by Master B. Szmidt.

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and Master E. Kuzma. The Laboratory V also mastered the problem of magnetic lags in silicon steels (Professor A. Smoliński and Master Z. Kaczkowski). Results of this work were presented to the magnetic congress in Philadelphia in 1958 and were also published in the Czechoslovak and English press. The technology of production of ferrites with rectangular hysteresis loop for computers was handed over to the "Polfer" Zakład Materiałów Magnetycznych (Magnetic Materials Plant) (Master A. Braginski and Master R. Wadas). The Laboratory VI worked on a number of problems of measuring the properties of transistors (Master St. Siekierski, Master J. Szerszeń and Master E. Stolarski). Professor W. Olzak acquainted the members of the meeting with the IPPT's activities in the field of mechanics which are dealt with by four departments of the Institute, i.e., the Zakład Mechaniki Ciał Ciągłych (Department on the Mechanics of Continuous Media), Zakład Mechaniki Cieczy i Gazów (Department on the Mechanics of Liquids and Gases), Zakład Metali (Department of Metals) and the Samodzielna Pracownia Astronautyczna (Independent Astronautical Laboratory). The Department on the Mechanics of Continuous Media was founded in 1952 and has today 70 scientific workers of whom 25 have the title of professor and / or docent and 11 the doctor's degree. The main fields of research of this Department are the theory of stress distributions, constructions, pre-stressed structures and of

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mechanics of stochastic media. Work on the theory of stress brought solutions to a number of problems connected with orthotropic plates (head of the laboratory Professor W. Nowacki). Work on the theory of plasticity (head of the laboratory Professor W. Olszak) concerned non-homogeneous bodies and anisotropy. Achievements in the work on the theory of construction (head of the laboratory Professor W. Wierzbicki) were in the field of: 1) permitted stress in steel structures, 2) instruments for summarizing the frequency of random variables, 3) analysis of durability hypotheses in connection with the theory of probability, 4) semi-probability method for testing the safety of reinforced concrete structures, etc. The team headed by Professor Z. Wasilutyński worked out certain theories on the formation of minimum potential and the team headed by J. Naleszkiewicz the principles of durability calculation of ships and methods for calculating statics and vibrations of individual ship elements. On the theory of prestressed structures (head of the laboratory Docent Cz. Eimer) the work concerned the problem of creep of isostatic and hyperstatic stressed units. The laboratory headed by Professor A. Lisowski carried out experimental work on the theory of lateral bending. The laboratory headed by Doctor J. Pindera and later by Master R. Dąbowski worked out the technique of testing plates.

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stress and the elasto-optical technique of testing distribution of stress by the brittle-coverage method. The work on the mechanics of stochastic media (head of the laboratory Professor J. Litwiniszyn) produced results permitting the determination of displacement and deformation of the earth surface in mining regions. A total of 586 works were published in Poland and 45 abroad during the period 1953-1959. A number of these works were also translated into Hungarian, Chinese and Slovak. The individual stations of this Department held periodic seminars and meetings at which a number of original works were presented. Between 1953-1959 a total of 17 people obtained the title of candidates of technical sciences, 17 that of docent and 10 of professor. The members also attended various foreign conferences. The Department publishes "Archiwum Mechaniki Stosowanej" and "Rozprawy Inżynierskie" periodicals and "Biuletyn Polskiej Bibliografii Analitycznej". The Department on the Mechanics of Liquids and Gases was founded in 1956 from the Pracownia of the same name, which has existed since 1954 at the Department on Mechanics of Continuous Media. The Department on Mechanics of Liquids and Gases concentrates its research on three fields, i.e., gas dynamics, internal structure of liquids and gases and on filtration. In

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research on the dynamics of gases the most important results were obtained in the theory of straight waves for unstable spatial flow (under Professor J. Bonder). These results were presented to the IX International Congress of Applied Mechanics in Brussels and to the IV Scientific Conference of the Department on the Mechanics of Liquids and Gases held in Augustow. The theories on cylindrical and spherical shock waves and the analysis of their structures were also expanded. In research on the mechanics of flight (under Professor W. Fiszdon) the main results obtained concerned the analysis of periodically variable aerodynamic forces. Work on molecular dynamics carried out by the Pracownia Struktury Wewnętrznej Cieczy i Gazu (Laboratory on the Internal Structure of Liquids and Gases) headed by Professor M. Lupa, brought the development of the method for testing the circulation by highly rarefied gases under the name of "demographic method". The Pracownia Filtracji (under Dorant H. Walden), which was founded in 1959, works in addition to the basic problems of filtration also on research on the movement of petroleum bearing strata during the filtration of the liquid. During the period 1957 - 1959, the Department published 37 works in Polish publications and 8 works in foreign periodicals. Critiques on a great many of published works appeared in the following periodicals: "Referativnyi Zhurnal" (Mechanika), "Applied Mechanics Review", "Marine Card 12/18

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mathematical Reviews" and "Aero Space Engineering". During the period under review the Department also organized 4 international scientific conferences, the subject of which were dynamics of gases and molecular aero-dynamics. A total of 37 original works were presented at these conferences, of which 21 were Polish and 16 foreign. Four members of the Department obtained the title of Candidate of Sciences and 2 that of Docent. The workers of the Department took part in various international congresses, including the Congress on Theoretical and Applied Mechanics held in Opatija, Yugoslavia in 1958. Foreign scientists showed interest in the results of scientific work of this Department. Twelve well-known foreign scientists also took part in the Department's conference held in Augustow in 1959. Scientists of the Department were also asked to give lectures in the USSR, China and USA. The Department of Metals was founded in Kraków in 1953 and has today 32 members. During the 6-year period the Department published 92 works, of which 13 were also translated into Russian, Czechoslovak, Hungarian and German. The workers of this Department also presented their original works at various international conferences, including the conference in honor of G. Agricola held in 1955 in the GDR, Conference on the problems

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of Non-Ferrous Metallurgy held in Freiberg in 1956, Hutnicke a slevarenske dni (Metallurgical and Forging Days) in Plzen in 1957, Analytical Conference in Ostrava in 1957, conference devoted to the problems of "System of Balance of Metals" held in Moscow in 1957, Session at the Institute of Non-Ferrous Metals in Freiberg, held in 1958, Conference of the Council for Mutual Economic Aid of States of People's Democracies, held in Wisla in 1958, and the Mining and Metallurgical Conference in Freiberg in 1959. The activities of the IPPT's Department of Metals during the past 6 years included three fields, i.e., 1) theoretical metallurgy; 2) theory of plastic deformation of metals and 3) basic problems in the possibilities of utilizing domestic raw materials. The Department also organized scientific meetings and promoted cooperation with scientific institutions in the USSR and the GDR. The research program included 1) change in the process of rectification allowing for the production of 99.9999 % zinc; 2) construction of the first industrial cadmium rectifier in the world; 3) production of pure metals, such as oxygen-free copper; 4) thermodynamics of ion-structure solutions; 5) plastic deformations of metals; 6) method for determining anisotropy of mechanical properties; 7) new non-ferrous metal alloys

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(silicon bronzes, low-copper brass and zinc-manganese alloys) and 8) original method for determining micro-seggregation in industrial metals. During 1956-1959, the Independent Astronautical Laboratory headed by Professor K. Zarankiewicz, carried out research on various astronautical problems, such as the structure of the atmosphere, mechanics of rocket flight and the utilization of nuclear energy for rocket propulsion.⁵ Professor I. Malecki reported on the achievements of the IPPT in the field of industrial physics, which is dealt with by the Zakład Badania Drgań (Department for Research on Vibrations); Zakład Analogii (Department of Analogy) and the Samodzielna Pracownia Techniki Izotopowej (Independent Laboratory on Isotope Engineering). The Department for Research on Vibrations (Professor I. Malecki) carried out research on mechanical, acoustic and electric vibrations. The team under Doctor Kołtoński carried out tests with the application of ultrasonics in geological research. The device for this purpose named "petroskop" aroused great interest at the Moscow exhibition. Docent Filipczyński developed a "betonskop" which is used for checking concrete structures. It is expected that this "betonskop" will become an important export article next year. The team headed by Master Wehr carried out research on

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the use of ultra-sonics in the research on physical properties of insulating materials, plastics and liquids. Such methods have already been applied in industrial-porcelain plants and it is expected that they will soon find application in the chemical and rubber industries. The Department also developed, in cooperation with the Zakład Elektroakustyki Politechniki Warszawskiej (Department of Electro-Acoustics of the Warsaw Polytechnical Institute), an ultrasonic defectoscope, of which 200 have already been exported. Due to the new technology of ultrasonic control considerable savings were achieved and production increased in plants such as the Zakład Świerczewskiego (Plants "Imienia Świerczewski") in Elbląg and "Ursus". The special ultrasonic devices designed by Docent Filipczyński and Master Pawłowski are used for testing railroad tracks and carriage axles. The active application of ultrasonic methods is carried out under the supervision of Master Leśniak. The most important achievement in this field is the construction of a generator, which will allow an expansion of work on the active application of ultrasonic methods in chemistry and metallurgy. The laboratory headed by Docent Pajewski is the only Polish station which produces special piezoelectric converters. Doctor Kołtoński carried out work on problems

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of stereophony. Research on the acoustic structure of the Polish language is carried out by Docent Jassem in a special laboratory set up for this purpose. Docent I. Kacprowski carried out research on problems of telephonometry and on the transformation of electric vibrations into sounds. The laboratory headed by Professor S. Kaliski produced some outstanding results in the field of dynamics of stressed and non-stressed structures and on various characteristics of anisotropy. To the team, headed by Professor S. Ziemby, goes the credit for research on wear and fatigue of materials and for the work on low-frequency vibrations. Although the work in the field of electric vibrations made no spectacular progress, the work on high-class molecular frequency stabilizers, carried out by Doctor S. Hahn, is extremely valuable. The task of the Department of Analogy (Head Doctor Czarnecki) is to transform mechanical, electric and acoustic phenomena, research on which is carried out in other IPPT's departments, into mathematical terms. The Department concentrated, therefore, on developing analogue machines. Master J. Karpiński designed an original analogue machine for meteorological purposes. A modern transistor machine for analogue analysis is under construction. Master Kanczewski carries out work on modelling with

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the use of so-called electrolytic grids. The Independent Laboratory for Isotope Engineering which is headed by Docent M. Radwan was founded 3 years ago. The laboratory concentrated on research into the phenomena of radiation in internally non-homogeneous bodies. This work served as the basis for the development of defectoscopy by the use of cobalt, iridium and cesium. This laboratory also took active part in the introduction of various isotope methods in industry; especially fruit-bearing was the cooperation with the "Warszawa" Huta (Metallurgical Plant) and "Energomontaż". A scintillating spectrometer was also designed. The isotope method for checking the flow in electrolytic baths was also mastered and introduced by the Aluminum Plant in Skawina. There is also close cooperation with the Institute of Acoustics in Moscow, the Polytechnical Institute in Dresden and the Institutes of the Hungarian Academy of Sciences. There are 2 figures and 4 photographs.

ASSOCIATION: Polska Akademia Nauk, Instytut Podstawowych Problemów Techniki
(Polish Academy of Sciences, Institute of Basic Technical Problems).

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Przeł techn no.43:7 26 0 '60.

1. Sekretarz Generalny Polskiego Zrzeszenia Inżynierów i
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techniczne t. 1) (Methods of designing retardation networks. French and Russian
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Nowicki W. Principles of Wire Transmission. Vol. I.
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414 pp., 181 figs., 22 tabs.

This is the first volume of a book which is to delineate the theoretical principles of wire transmission. This volume contains general and fundamental information, a description of telecommunication network structures now in use, the theory of four-terminal networks and an analysis of the transmission properties of an asymmetrical line. Information, in the form of a list of formulae and a summary revision, concerning the most important functions of a real variable and a complex variable, appendices containing proofs of some of the formulae used in the book, together with several auxiliary tables, to facilitate calculations more frequently performed.

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method of the negative impedance which can be introduced in
the line either in series or in parallel. The negative im-
pedance element is realized using a valve amplifier with
positive feedback. The performance of the system is exam-
ined taking into consideration the conditions for stability.
The amplitude distortion of signals arising from the insertion
of amplifiers in the line is treated in detail. The various
types of amplifier and those of conventional design are
carefully compared. Z. F. Wojnar

[Handwritten initials]

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NOWICKI, W.

5586. CONCENTRATED COMPENSATION OF COUPLING IN
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Reduction of coupling is achieved by placing RL compensating elements at discrete points of the transmission line. Basic for the method is given, suggestions for practical application in various cases are illustrated by examples. The problem of near-end cross-talk is discussed in detail.

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Laboratory of Experimental Zoology, Polish Academy of Sciences; with English,
French, and Russian summaries.)

Histochemical investigations of the variability of the lipide content in the
female apocrine glands. p. 283.

Vol. 5. No. 4, 1957

Monthly List of East European Acessions (EEAI), LC, Vol. 8, No. 3, March 1959
Unclass.

NOWICKI, Z.
LAUDANSKA, E.; NOWICKI, Z.; PAJSZCZYK, T.

Obstetric shock. Gin. polska 24 no.4:413-422 Oct-Dec 1953. (CML 25:5)

1. Of the First Gynecologic-Obstetric Clinic (Head--Prof. J. Sieros-
sewski, M.D.) of Lodz Medical Academy.

Nowicki Z.

LAUDANSKA, Estella; NOWICKI, Zbigniew

Treatment of pregnancy toxemias and eclampsias. Gin. polska 25
no.4:375-387 Oct-Dec. 54.

1. Z Kliniki Chorob Kobietych i Foleznictwa Akademii Medycznej
w Lodzi. Kierownik: prof. dr J. Sieroszewski.
(PREGNANCY TOXEMIASIS, therapy.)
(ECLAMPSIA, therapy.)

NOWICKI, Z.

LAUDANSKA, Estalla; NOWICKI, Zbigniew.

Management of late pregnancy toxemias. Gin. polska 26 no.4:
473-489 1955.

1. Z I Kliniki Chorob Kobiacych i Poloznictwa A.M. w Lodzi
Kierownik: prof. dr J.Sieroszewski. Lodz, Wschodnia 61.
(PREGNANCY TOXEMIAS, therapy)

KOWICKI, Zbigniew.

Intravenous pain-provoking drip. Gin.polska 28 no.2:211-226 Mar-Apr 1956.

**1. Z I Kliniki Położnictwa i Chorób Kobięcych A.M. w Łodzi .
Kierownik: prof. dr. med. J.Sieroszewski. Łódź, ul. 10
Lutego 5 m. 1.**

(LABOR, INDUCED

by pain-provoking intravenous infusion (Pol))

(PAIN,

**provocation of pain by intravenous infusion in induced
labor (Pol))**

LESZCZYNSKI, Stanislaw; NOWICKI, Zbigniew

Rupture of the uterus in pregnancy and in labor. Gin. polska
28 no.4:483-496 July-Aug 56.

1. Z I Kliniki Poloznictwa i Chorob Kobietych A.M. w Lodzi.
Kierownik: prof. dr. J. Sieroszewski. Leszczynski: Lodz,
Obroncow Stalingradu.

(UTERUS, rupture,
in labor & pregn. (Pol))

(LABOR, complications,
uterus rupt. (Pol))

(PREGNANCY, complications,
uterus rupt. (Pol))

EXCERPTA MEDICA Sec 13 Vol 13/5 Dermatology May 59

1250. HISTOLOGICAL INVESTIGATIONS ON THE VARIABILITY OF THE LIPID CONTENT IN THE FEMALE APOCRINE GLANDS - Badanie histochemiczne nad zmiennością zawartości lipidów w gruczołach apokrynowych kobiety - Ackermann J. and Nowicki Z. Zakł. Histol. Akad. Med., Kraków - FOLIA BIOL. (Kraków) 1957, 5/4 (283-292) illus. 6

Apocrine glands of the mons pubis were studied in biopsies taken from 40 females, 19 to 58 yr. old. In the period of sexual activity lipids appear only sporadically and are irregularly distributed. There is no characteristic picture for either phase of the menstrual cycle. At the menopause, however, sudanophil substance appears in all glandular tubes, irrespective of their calibre, abundantly filling the cytoplasm of the glandular cells. (1, 5, 13, 16)

SIEROSZEWSKI, Jozef; LAUDANSEKA, Estella; NOWICKI, Zbigniew

Surgical therapy of inflammatory conditions of the adnexa
uteri. Gin.polska 30 no.6:713-727 M-D '59.

1. Z I Kliniki Poloznictwa i Chorob Kobietych A.M. w Lodzi
Kierownik: prof. dr J. Sieroszewski.
(ADNEXITIS surg)

SIEROSZEWSKI, Jozef; KICINSKI, Janusz; NOWICKI, Zbigniew; PAJSZCZYK-KIESZKIEWICZ,
Teresa; WOLODZKO, Leon

Heart defects from the obstetric viewpoint. Gin. polska 32 no.2:135-144
'61.

1. Z I Kliniki Poloznictwa i Chorob Kobietych A.M. w Lodzi Kierow-
nik: prof. dr J. Sieroszewski
(HEART DISEASE in pregn)
(PREGNANCY compl)

LAUDANSKA, Estella; NOWICKI, Zbigniew; PAJSZCZYK-KIESZKIEWICZ, Teresa

On the problem of prolonged labor. Gin. polska 32 no.2:145-152 '61.

1. Z I Kliniki Położnictwa i Chorob Kobietych A.M. w Łodzi Kierownik: prof. dr J. Sieroszewski
(DYSTOCIA)

SIEROSZEWSKI, Josef; LAUDANSKA, Estella; SAKOWSKI, Jan; KROLIKOWSKA, Maria;
NOWICKI, Zbigniew; LACHOWICZ, Lilla

Selected hemodynamic problems in 3d stage of labor. Gin. polska 32
no.2:177-184 '61.

1. Z I Kliniki Położnictwa i Chorob Kobięcych A.M. w Łodzi Kierownik:
prof. dr J. Sieroszewski
(LABOR blood)

SIEROSZEWSKI, Jozef; LAUDANSKA, Estella; SAKOWSKI, Jan; KROLIKOWSKA, Maria;
NOWICKI, Zbigniew

Hemorrhage in 3d stage of labor. Gin. polska 32 no.2:185-190 '61.

1. Z I Kliniki Poloznictwa i Chorob Kobiacych A.M. w Lodzi Kierow-
nik: prof. dr J. Sieroszewski
(HEMORRHAGE POSTPARTUM)

SIEROSZEWSKI, Josef; LAUDANSKA, Estella; SAKOWSKI, Jan; KROLIKOWSKA, Maria
NOWICKI, Zbigniew

Pharmacological management of 3d stage of labor. Gin. polska 32
no.2:197-201 '61.

1. Z I Kliniki Poloznictwa i Chorob Kobietych A.M. w Lodzi Kie-
rownik: prof. dr J. Sieroszewski
(HEMORRHAGE POSTPARTUM prev & control)

LAUDANSKA, E.; SAKOWSKI, J.; NOWICKI, Z.; LACHOWICZ, L.; PAJSZCZYK-KIESZKIEWICZ,
T.; KIESZKIEWICZ, J.; PIECHOWIAK, Z.; WISNIEWSKA, A.; LUBINSKA, Z.

Acute and chronic fetal anemias and role of wards for complicated
pregnancy in their prevention. Ginek. pol. 33 no.6:765-771 '62.

1. Z I Kliniki Poloznictwa i Chorob Kobietych AM w Lodzi, Kierownik:
prof. dr J. Sieroszewski.

(ASPHYXIA NEONATORUM)

ACKERMANN, Jadwiga; NOWICKI, Zdzislaw; SZAFRANIEC, Irena

Method of decalcification of hard tissues in moderate vacuum.
Pat. polska 7 no.2:89-93 Apr-June 56.

1. Z Zakladu Histologii A.M. w Krakowie, Kierownik: prof. Dr.
J. Ackermann. Adres autora: Krakow, Zaklad Histologii A.M. Ul.
Kopernika 7.

(HISTOLOGY,
decalcification of hard tissue in moderate vacuum (Pol))
(CALCIUM,
same)

ACKERMANN, J.; ALEKSANDROWICZ, J.; KRUPINSKI, L.; KULCZYCKI, A.;
~~HOWICKI, Z.~~

Vaginal cytogram in leukemias. Polski tygod. lek. 11 no.23:
1016-1019 4 June 56.

1. Z III Kliniki Chorob Wewnetrznych w Krakowie; kier. prof. dr.
J. Aleksandrowicz i s Zakladu Histologii A.M. kier. prof. dr.
J. Ackermann, Krakow, A.M. Zaklad Histologii III Klinika Chorob
Wewn.

(LEUKEMIA, pathology,
vaginal smear (Pol))
(VAGINAL SMEAR, in various diseases,
Leukemia (Pol))

NOWICKI, Zdzislaw; ACKERMANN, Jadwiga

Histochemical and rheological properties of mucus of the cervix
uteri. Postepy hig. med. dosw 14 no.2:216-224 '60.

1. Z Zakladu Histologii A. M. w Krakowie, kierownik: prof. dr.
J. Ackermann.
(VAGINAL SMEAR)

SOKOLOWSKI, Adam; ACKERMAN, Janina; BARMIK-SCHRAMM, Alicja; BUNSCHWELKENS,
Krystyna; GUSCHELBAUER, Tadeusz; NOWICKI, Zdzislaw

A case of hemi-aldystrophy in a woman with fibrous pulmonary changes.
Pol. tyg. lek. 17 no.51:1995-1999 17 D '62.

1. Z Instytutu Reumatologicznego, Oddział w Krakowie; dyrektor: prof.
dr A. Sokolowski i z Zakładu Histologii AM w Krakowie; kierownik: prof.
dr J. Ackerman.

(PAIN)

(MUSCULAR DYSTROPHY)

NOWICKI, Zdzislaw

Histochemical studies on the earliest development stages of
tooth germs. II. Folia morphol 21 no.4:411-432 '62.

1. Zaklad Histologii, Akademia Medyczna, Krakow. Kierownik:
prof. dr J. Ackermann.

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NOWICKI, Zygmunt; SWIDERSKI, Zdzislaw

On certain methods of testing the state of rolling bearings
applied on the ET 21 electric locomotives. Przegl kolej mechan
14 no.5:149-155 My '62.

1. COB i RTK, Zaklad Technologii Metali i Spawalnictwa, Warszawa.

NOWIERSKI, WITOLD

Przemysł pracuje dla potrzeb wsi. (wyd. 1.) Warszawa, Ludowa Spółdzielnia
Wydawnicza (1953) 62 p. (Industry works for the country's needs. illus.)

SO: Monthly List of East European Accessions, Vol. 3, No. 6, Library of Congress, June.
1954, Uncl.

NOWIK, L.

Organizational improvements in the industry alone is not
enough. Przegl techn no.34:4 24 Ag '60.

NOWIKOW, Dymitr, inż.

High-pressure engines. Przegl mech 23 no.17/18:509-512 25 S '64

1. Central Design Office of Combustion Engines, Warsaw.

NOZYNSKI, J.; RYZKO, H.

Model research on thermal impulses caused by lightning striking roofs of metal storage tanks. p. 85. (Archiwum Elektrotechniki, Vol. 6, No. 1, 1957, Warsaw, Poland)

SC: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

NOWINSKI, Andrej, inz. (Zagreb, Kupska 2)

Application of seismic methods in the prospecting for coal deposits in Yugoslavia. Tehnika Jug 17 no.10: Suppl.:
Rudarstvo metalurg 13 no.10:1901-1908 0 '62.

1. Saradnik u poduzecu za primenjeni geofiziku "Geofizika", Zagreb.

NOWINSKI, G.

Problems of the theory of learning in relation to the Pavlovian theory
on the higher nervous function. Postępy hig. med. doświadcz., Warsz.
5:165-187 1952. (GLML 23:2)

KUZNICKI, Leszek; NOWINSKI, Czeslaw

Historical premises of the concept of species. Kosmos biol
13 no.6:483-500 '64.

NOWINSKI, Grzegorz (Dr. Sc. Engr.)

"A Theory of Conical Cantiliver Tubes," by Dr. Sc. Engr. George NOWINSKI, Prace Głównego Instytutu Lotnictwa, No 1, 1951.

NOWINSKI, I.

1 Naprężenia Termiczne w Grubo-
ściennym Walcu Anizotropowym (Ther-
mal Stresses in Thick-Walled Aniso-
tropic Cylinders). I. Nowiński and W.
Olczak. *Arch. Arch. Stosowanej* (War-
saw), No. 2, 1953, p. 231. 13 refs. In
Polish; abridged in English. Exact solu-
tion of the problem based on the theory of
elasticity.

NOWINSKI, Jerzy

Results of conservative therapy of acute mastoiditis. Otolaryngologia
15 no.1:61-65 '61.

1. Z Kliniki Otolaryngologicznej AM w Krakowie Kierownik: prof.
dr J. Miodonski.

(MASTOIDITIS ther) (OTITIS MEDIA compl)

NOWINSKI, Jerzy

Value of speech audiometry in prognosis and evaluation of hearing-restoring operations. Otolaryng. Pol. 18 no.2:243-249 '64.

Hearing exercise in postoperative management. Ibid. 27:1-17

1. Z Kliniki Otolaryngologicznej Akademii Medycznej w Krakowie
(Kierownik: prof. dr. med. J. Miodonski [deceased]).

NOWINSKI, Jerzy

Value of tamponades with nasal balloons in systemic diseases. Otolaryngologia polska 15 no.3:351-353 '61.

1. Z Kliniki Otolaryngologicznej AM w Krakowie Kierownik: prof. dr J. Miodorski.

(EPISTAXIS ther)

NOWINSKI, Jerzy

Ligation of the carotid artery. Otolar. polska 16 no.2:411-416 '62.

1. Z Kliniki Otolaryngologicznej AM w Krakowie Kierownik: prof. dr
J. Miodonski.

(CAROTID ARTERY surg)

MIODONSKI, Jan; NOWINSKI, Jerzy; SEKULA, Jan

Results of surgical therapy of otosclerosis. Otolaryng. pol.
17 no.1:1-8 '63.

(FENESTRATION) (STAPES MOBILIZATION)
(OTOSCLEROSIS) (STATISTICS)

NOWINSKI, Jerzy

Contribution to audiological investigations in Meniere's disease. Otolaryng. Pol. 19 no.3:337-339 '65.

1. Z Kliniki Otolaryngologicznej AM w Krakowie (p.o. Kierownik: doc. dr. med. H. Gans).

P.T.A.

Mech. + Elec. Engineering

62008 69136

Nizinski J. The Axis of Twist and the Axis of Shear in Box Beams without Axial Constraints.

Os skręcenia i os ścinania w wypadku swobodnego osadzenia dęgiarow skrzynekowych. Technika Lotnicza No. 1, 1950, pp. 1-8

On the basis of the theory of thin walled cylindrical tubes derived by the author the formulae are given for the normal and shear stresses in the walls of a cantilever, loaded at the free end by a transverse force, the fixing conditions at the built-in end being free warping of the cross sections. It was found that the separation of the total shear stresses requires no knowledge of the position of the centre of shear. On the other hand, in the formulae for the twist of the beam, a device appears which can be used for the loading moment referred to the axis of symmetry. The factor is commonly called the shear centre of the beam. A formula for the centroid of the shear centre of a thin walled open section is given and that the axis of symmetry is also represented by a certain line, and that the perpendicular distance between the kind of loading and the fixing point

Over

NOWINSKI, J.

Nowinski, J. Flexure of beams by terminal loads. Arch. Méc. Appl., Gdańsk 2, 89-105 (1950). (Polish. English summary)

The author considers an isotropic homogeneous cantilever beam of uniform cross-section, fixed at one end, $s=0$, and loaded at the other, $s=l$, by forces equivalent to a single force $P (P_x, P_y, 0)$, acting in the point $(x_w, y_w, 0)$. The z -axis coincides with the central line of the beam, which is the locus of the centroid of a cross-section. The body forces are assumed to be zero. The displacements (u, v, w) are found from the general formula by substituting the constants defined from the above conditions. The author derives the expression for the angle of rotation of an element of a cross-section in the plane of this cross-section, which he calls the local rotation. The local rotation of an element containing the centroid is called the mean rotation. The local rotation depends on the fixing conditions and on the position of the load point. If the load point coincides with the position of the center of flexure the mean amount of rotation for every cross-section is constant, and generally different from zero. The mean amount of rotation may equal zero only if the fixed points are suitably chosen or if the beam is subjected to pure torsional couple. The axis of local pure translation which is the locus of a point which is only translated, and the axis of pure rotation which is the locus of a point which is not translated in the plane of a cross-section, are found. These loci, in general, are some space curves; when the beam is subjected to pure torsional couple the axis of pure rotation is the straight axis of twist.

T. Leser (Lexington, Ky.)

M

Source: Mathematical Reviews,

Vol. 12 No. 1

PTA

5

1160

629.1301431

Nowinski, J. Stresses and Deformations in a Built in Two-Spar Cantilever Wing.

„Naprężenia i odkształcenia skrzydła dwudźwigarowego osadzonego sztywno” Technika Lotnicza No. 1, 1951, pp 2-13, 5 figs.

Formulae are deduced for the stress calculation in a straight two-spar cantilever wing with trapezoidal cross section. It was assumed that shear is transmitted by the skin only and normal stresses are taken by the variable section booms. The wing load is a transverse force applied at the free end. The influence of the rigid end fixture on the stresses has been taken into account. It was shown that in general the axis of twist is not a straight line and its position depends on the load. This axis does not coincide in general with the shear centre of the loaded section. It is demonstrated, at the same time, that the axis of twist does not pass through the shear centre of

the end section there is, in general, a twist of all wing sections except the end one

Nowinski, Jerzy

✓ Teoria Dźwignów Cienkościennych
Zbiórnych. Jerzy Nowinski. *Główn. Inst.
Lotnictwa, Praca, No. 1, 1951, pp. 3-47.*
14 refs. In Polish. Analysis to derive a
theory of cantilever tubes in the absence
of buckling. Approximate general ex-
pressions are formulated for the coordi-
nates of the axes of shear neglecting the in-
fluence of self-equilibrating stress sys-
tems, and solutions are found for the case
of torsion by a concentrated torque in an
arbitrarily chosen section, and for that of
bending combined with torsion caused by
a force in an arbitrarily chosen section.

VAN

Nowinski, Jerzy

Zginanie Zakrzywionej Rury Ciężko-
ściennej Zaczepionej we Względ. Jerzy
Nowinski. *Glown. Inst. Lotnictwa, Prace*,
No. 1, 1951, pp. 49-57. In Polish.
Theoretical determination of the elastic
distortion in the case of tubes with per-
fectly rigid diaphragms at both ends,
based on von Karman's solution for the
bending of a curved thin circular tube,
and taking into account the influence of
diaphragms by assuming suitable expres-
sions for the function representing the
flattening of cross section. Analysis con-
siders two cases—that of articulated dia-
phragms and that of rigidly fixed dia-
phragms.

WHL

NOWINSKI, JERZY

✓ Wpływ Zamocowania Zapadłego na
 Naprężenia w Dźwigarze Zginającym. Jerzy
 Nowiński. *Głosn. Inst. Lotnictwa, Prace,*
 No. 1, 1961, pp. 69-87. In Polish. Calcula-
 tion of the influence of end-constraint on
 stresses and deflexions of the free end of a
 beam in flexion, taking into account four or
 three self-equilibrating systems. Analysis
 considers a thin rectangular beam bent by
 a concentrated load at the free end, and
 assumes suitable expressions for the
 stresses constituting self-equilibrating sys-
 tems in the built-in end of the beam, in
 order to eliminate the warping of the end
 cross section caused by the load.

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1000

VMM *Handwritten mark*

Nowinski, Jerzy

Nowinski, Jerzy. On the incorrectness of a theorem stating the identity of center of twist and center of shear.
 Arch. Mec. Appl. (Warsaw) 3: 83-90, 1951. (Polish English summary)
 C. Weber [Z. Angew. Math. Mech. 6, 85-97 (1926)] proved a theorem that in a beam of an arbitrary cross-section loaded by a concentrated force and a couple acting in the plane of the cross-section, the center of shear and the center of twist coincide. Grzedzielski and Nowinski [Technika Lotnicza 7, no. 1, 2-6 (1939)] showed that the theorem applies to a beam twisted by a couple only, and that the position of the center of twist depends on the type and magnitude of loading, contrary to the assumption on which Weber's theorem was proved. The author illustrates the incorrectness of Weber's theorem on an example of a beam of the shape of a thin-walled tube with axial constraints and rigid end diaphragm. The loads are a force P and a couple M acting in the plane of the end cross-section. The example shows that the position of center of twist and center of shear coincide only when $P=0$. T. Leser (Lexington, Ky.).

Source: Mathematical Reviews,

Vol 13 No. 4

JP

AMR

Buckling Problems

1000. Nowicki, J., Problem of stability of high-plate-girder webs (in Polish), *Intyn. Budown.* 4, 5, 208-210, May 1951.

Author deals with the problems of stability of high-plate-girder webs. Paper contains a discussion of the well-known Timoshenko, Chwall, Nölke, and St. Bergman solutions. Author presents approximate formulas for determining critical stresses, and deals with strains and stresses of a plate in a supercritical condition.

Finally, on the basis of Wästlund's and St. Bergman's experience, the safety factors proposed by them for buckling of plates are discussed and compared with the factors adopted in the Polish standards for steel construction.

W. Nowicki, Poland

NAJNICKI, JERZY.

Teoria dzwigarow ciennosciennych z przelrozu statyw, Abiazonych
rownomiernie. Warszawa, Polska.

Matl. Polakiego T. W. Matematycznego, 1952. 43 p. (Zestawienie matematyczne, 1)
MAU

Monthly list of East European Association (EEAI) 18, Vol. 2, No. 2, Feb. 1968

Uncl.

Nowinski, J.

Mathematical Reviews
Vol. 14 No. 10
Nov. 1953
Mechanics.

Nowinski, Jerzy. On the theory of thin-walled beams with open cross-section under ~~uniformly distributed~~ load. Rozprawy Mat. 1, 48 pp. (1952). (Polish. Russian and English summaries)

The author of this paper derived a theory of thin walled beams in a previous (unavailable) work [Buletyn Inst. Techn. Lotn. 6 (1947)]. His theory differs from that given by Vlasov [Akad. Nauk SSSR. Prikl. Mat. Meh. 8, 361-394 (1944); these Rev. 7, 142], mainly in taking into account the so-called self-equilibrating stresses; Vlasov's theory neglects these stresses completely. In this paper the author presents the application of his theory to a particular case. The beam under consideration is a cylindrical shell cut lengthwise, which makes the cross-section open. The beam is fixed at one end and uniformly loaded. The assumptions are as follows: 1) the cross-sections remain plane; 2) the rigidity of the wall can be neglected; 3) the existence of a pseudo-plane state of stress in the wall; 4) the Poisson ratio equals zero. The author reduces the problem to a boundary-value problem with four unknown functions and solves it, considering bending and torsion separately. T. Loser.

Handwritten notes:
2. met. & Mech.
Prop. 1/2

NOWIŃSKY, JERZY

①

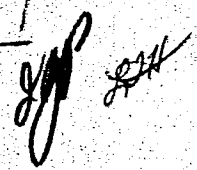
Wygęcie Blony Kołowej Rozpętej
na Pierścieniu Sprężystym (The Deflec-
tion of a Circular Membrane Supported
on an Elastic Ring). Jerzy Nowiński.
Arch. Mech. Stosowanej (Warsaw), No.
2, 1953, p. 295. In Polish; abridged in
English. Structural analysis as a very
thin plate without flexural rigidity ac-
cording to the von Kármán stress equa-
tions.

10-13-54

NOV 11 1953
POL. ◀

L - F/W

Nowinski, Jerry. The torsion of a rectangular rod in which
each cross section remains plane. Arch. Mech. Stos. 5,
47-66 (1953). (Polish. English summary)
An approximate solution is obtained for the torsion prob-
lem of a rectangular rod, one of whose cross-sections is
constrained to remain plane. The method used is that pro-
posed by S. P. Timoshenko [Theory of elasticity, McGraw-
Hill, New York, 1934, p. 302] for the solution of the corre-
sponding problem for a narrow rectangular beam.
J. S. Sakolnikoff (Los Angeles, Calif.)



Nowiński, Jerzy. The deflection of a circular membrane supported on an elastic ring. Arch. Mech. Stos. 5, 295-307 (1953). (Polish. English summary) $\frac{1}{2} = \frac{F}{\sqrt{...}}$

A membrane described in the title is subjected to a constant normal distributed load. Bottoms of certain cylindrical containers can be regarded as such membranes. Deflections and stress function for membranes are controlled by a system of two partial differential equations known as equations of Kármán. For a circular membrane this system was solved by H. Hencky [Z. Math. Phys. 63, 311-317 (1914)] in rapidly convergent series whose coefficients have to be determined from boundary conditions. The author finds the coefficients of the first four terms from the condition that on the boundary the circumferential strain of the plate must equal that of the ring. He discusses his solution with the aid of graphs. The loss of stability is excluded.

T. Leser (Aberdeen, Md.)

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NOWINSKI, JERZY

POLON

Nowinski, Jerzy, and Turcki, Stanislaw. A study of states of stress in anhomogeneous bodies. Arch. Mech. Stos. 5, 397-414 (1957). (Polish. Russian and English summaries) REF/W

This is a continuation of the paper reviewed above. The authors develop further the theory of continuous nonhomogeneity and present a few more examples. They consider only prismatic or cylindrical beams with longitudinal elements parallel to the axis of the beam where all normal cross-sections are equal. The z-axis is parallel to the beam axis, the xy-plane passes through one of the normal cross-sections. The authors consider three kinds of nonhomogeneity: (1) transversal nonhomogeneity, Young's modulus, $E = E_{xy}(x, y)$; (2) longitudinal nonhomogeneity, $E = E_z(z)$; (3) transversal and longitudinal nonhomogeneity

$$E = E_{xy}(x, y)E_z(z).$$

They define a reduced centroid of a cross-section and a reduced moment of inertia. The considerations of strain energy show that variational principle can be easily applied. The authors give an example of Lamé's problem in the form known from the previous paper but solved by the application of Lagrange's variational principle. Transversal nonhomogeneity is illustrated further by problems of pure bending and torsion. Longitudinal nonhomogeneity is illus-

NOWINSKY, JERZY.

TECHNOLOGY

NOWINSKY, JERZY. Opewnych charakterystycznych punktach przekrojow dzwigarow cienkosciennych. Warszawa, Panstwowe Wydawn. Naukowe, 1954. 51 p. (Kozprawy matematyczne, 7)

Monthly List of East European Accessions (EEAI) LC, Vol 8, no. 4.
April 1959, Unclass

Nowinski, J.

3401
332.313.001.5
Nowinski J., Olczak W. On the Principles of the Theory of Elastic Physically Non-Linear Bodies.

POI. 2

"O podstawach teorii ciał sprężystych fizycznie nieliniowych"
Archiwum Mechaniki, Stosowanej (PAN). No. 1, 1951, pp. 150-168, 2 figs.

Numerous important constructional materials, primarily so-called "brittle" materials — cast-iron, natural and synthetic stone, etc. — are not subject to the law of linear dependence between stress and strain. This means that Hooke's law cannot be applied to them, even within the range of minor and (practically) completely elastic deformations. The model of these bodies is, if they are to be considered as isotropic bodies, an isotropic non-linear elastic body. The type of non-linearity referred to is generally termed physical non-linearity, that is by non-linearity resulting from the actual (physical) structure of the body, as distinct from geometrical non-linearity which is in conjunction with the theory of elasticity of physically non-linear bodies. The theory of elasticity, based on the assumption of infinitesimal deformation. Since materials not subject to Hooke's law are extremely valuable, attempts have for some considerable time been made to explain the problems involved in the states of stress and deformation occurring in such bodies. This applies, first and foremost, to the theory of bend in beams and, to some extent, to the theory of torsion in prismatic elements. There have, however, because of inherent difficulties of a conceptual

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M. V. K. J.

and mathematical nature, been no means hitherto of explaining one or the other of these two problems except by such a simplified method as that for solving problems of the elementary theory of the strength of materials -- that is, by confining them to what is, actually, a quasi single-dimensional problem. The present authors have, however, never come across any such solutions concerning physically non-linear bodies as would apply to problems of elastic equilibrium in the case of general states -- particularly three-dimensional. They have therefore, not out to review, in this paper, certain of the simple problems involved.

Small R.H.

Nowinski, J

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P O L .

1.2304. Nowinski, J., The torsion of a rectangular bar with one cross-section remaining plane, *Bull. Acad. Polonaise Sci.* 2, 2, 57-61, 1954.

Author deals with the general case of torsion in a rectangular shaped bar, whose ratio of sides $\kappa = a/b$ can take any value. Starting from the solution proposed by L. S. Leibenson for the function of torsion, $\varphi = Ax^2 + Cxy^2 + Dx^2y$, he expresses the warping for a bar encastred on its one end, $w(x, y) = G\varphi(1 - e^{-\gamma x})$. Normal and shear stresses then can be obtained easily. The parameter γ is determined by means of the principles of Castigliano. Finally, a diagram of γ in function to the ratio of sides κ is presented.

Author concludes that order of magnitude of normal stresses for a rectangle 1:2 corresponds to that of maximum shear stress, determined by the theory of Saint Venant.

H. Beer, Austria

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Nowinski, J

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P O L .

✓ 2293. Nowinski, J, The torsion of a thin-walled conical tube with a longitudinal slot, Bull. Acad. Polonaise Sci. 2, 2, 63-67, 1954.

A thin-walled, straight conical tube, fixed at the larger end in a rigid foundation, is submitted to torsion. The tube has no internal walls and a longitudinal cut, bounded by two generators. Considering rotation and warping, author deduces the equations for the normal and shear stresses. He then computes the action of two couples M_x , obtaining, with several simplifications, formulas of practical use for these stresses. H. Beer, Austria.

JP BH

NOWIŃSKI JERZY

~~Nowinski, Jerry. Basic principles of the theory of plas-~~ 1 - F/W
~~ticity. I. Seven lectures. Rozprawy Inż. 2, 69-141~~
~~(1954). (Polish. Russian and English summaries)~~

An elementary introduction to the theory of plasticity is presented in six out of the seven lectures, limited to a discussion of states of stress and strain, plasticity condition and related Hencky stress-strain relations, and the solution of the elastic-plastic problems of the thick-walled tube under radial pressure and the beam in pure bending. The seventh lecture presents some elementary concepts of crystal physics referring to slip and mechanical strength. No notice is taken of the work in plasticity in the U. S. A. and in England during the last twenty years and no reference at all is made to the theory of glide-line fields and the resulting methods of integration of plasticity problems.

A. M. Freudenthal (New York, N. Y.)

gpp Jan

11/11/54

O Transformatach Niektórych Równań
Różniczkowych Statyki Budowli (The
Transforms of Differential Equations of
the Theory of Structures). P. Świąski
and J. Nowiński. Arch. Mech. Stosowanej
(Warsaw), 1954, p. 343. 19 refs.
In Polish, with summaries in English and
Russian. Analysis of the use of the La-
place transformation method in problems
of statics, with illustrative cases of the
bending of beams and plates.

gop BH

POL.

2286. Nowinski, J., and Olzak, W., On the bases of the theory of ~~viscoelastic~~ nonlinear elastic bodies, *Bull. Acad. Polonaise Sci.* 2, 3, 107-111, 1954.

Discussion of certain problems is based upon an incorrect correlation of elastic-plastic with nonlinear elastic mechanical behavior. Paper is brief, and reviewer does not follow the arguments.
H. G. Hopkins, England