KECMANOVIC, Zlatimir; PISTELJIC, Dusan

Justification of the term Mikulicz syndrome. Med. glasn. 8 no.1: 14-17 Ja '54.

1. Ocna klinika Medicinskog fakulteta u Beogradu (upravnik prof. dr. Dj.Nesic)
(MIKULICZ' DISEASE
*nomenclature)

L 1715-66 EWP(c)/EWG(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l) IJP(c)
RDW/JD

ACCESSION NR: AP5021083 CZ/0039/64/025/011/0650/0657

AUTHOR: Pistelka, Milan (Engineer); Jelinek, Josef (Engineer)

TITLE: Production technology and parameters measurement of a semiconductor cooling battery and its comparison with foreign-made types

SOURCE: Slaboproudy obzor, v. 25, no. 11, 1964, 650-657

TOPIC TAGS: battery, semiconductor device

ABSTRACT: [Authors' English summary, modified]: Technological data are given on the manufacture of Czechoslovak cooling bateries made of semiconductors. These eight-cell bateries, marked BGH 8/21, are based on a Bi-Sb-Te-Se system. Described is the vacuum equipment used in measuring the curves of the cooling power, thermoelectric power, thermal conductance, and electric resistance of the assembled battery. Qualities of an ideal battery, limited solely by parameters of its semiconductor material, are compared with actual bateries affected by technological processes. Results are compared with the properties of several foreign batteries. Thirteen references. Orig. art. has: 12 formulas and 8 graphs.

Card 1/2

L 1715-66

ACCESSION NR: AP5024083

ASSOCIATION: Ustav pristrojove techniky CSAV, Brno (Institute for Instruments Technology, CSAV)

SUBMITTED: 04Sep64 ENCL: 00 SUB CODE: EE, EC

NR REF SOV: 000 OTHER: 013 JPRS

Card 2/2

PISTELKA, Milan, inz.

Determining the parameters of bead thermistors by the graphic-numerical method. Slaboproudy obzor 23 no.9:495-500 S '62.

1. Ustav pristrojove techniky, Ceskoslovenska akademie ved, Brno.

KREJCI, Vladimir; SALANCKY, Igor; PISTELKA, Milan

Electrodiagnosis of closed muscle injuries. Cas.lek.cesk 100 no.50: 1578-1582 15 D '61.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. Dr. Sc. MUDr. Vladimir Novak. Ustav pro vseobecnou a experimentalni patologii lekarske fakulty v Brne, prednosta prof. Dr. Sc. MUDr. RNDr. Vilem Uher. Laborator prumyslove elektroniky CSAV v Brne, vedouci prof. Dr. Sc. Julius Strnad, clen korespondent CSAV.

(MUSCLES wds & inj) (ELECTRODIAGNOSIS)

S/194/62/000/010/076/094
A055, A126

AUTHOR: Pištělka, Milan

TITLE: Circuit of a "pulse controlled" (zhdushchiy) multivibrator with an electron tube and a thyratron

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 10, 1962, 112, abstract 10-7-223m P (Czech. pat., cl. 21g, ... no. 100190, July 15, 1961)

TEXT: The patent concerns a monostable multivibrator circuit with a tube, a thyratron and a relay, where the tube and the thyratron are connected in series, the thyratron cathode being connected to the tube anode; the thyratron grid is connected to the power supply through an ohmic divider. A delay element (parallel RC-circuit) is connected to the tube input between grid and ground. The cathode resistance of the tube is blocked by the release contacts of the relay; the circuit formed by the series-connected thyratron and relay winding is connected in parallel with the anode resistance of the tube; the common point of the tube-anode resistance and the relay winding is connected to a pole of the

Card 1/2

[illegible] power supply. When a negative pulse, [illegible] the tube, is applied [illegible] grid, the thyratron is extinguished [illegible] contacts shunting the [illegible] (fig. 1). At the same time, the negative pulse charges the [illegible] delay element. At the discharge of the capacitor, the current [illegible] decreases, the voltage across the anode resistance decreases and, at a [illegible] difference (across the anode resistance) equal to the thyratron firing [illegible], the thyratron is fired. The anode current of the tube grows sharply [illegible] be determined by the residual charge of the capacitor at the [illegible] and [illegible] for a reliable opening of the contacts on the cathode resistance; [illegible] formed on the cathode resistance limits the growth of the [illegible] tube.

A.D.

[Abstracter's note: Complete translation]

Card 2/2

Z/039/62/023/009/001/003
D407/D301

AUTHOR: Pistelka, Milan, Engineer

TITLE: A contribution to determining bead-thermistor characteristics by a graphical-numerical method

PERIODICAL: Slaboproudý obzor, v. 23, no. 9, 1962, 495-500

TEXT: The article presents a primary graphical-numerical solution of bead-thermistor characteristics which permits sufficiently precise determination of all parameters necessary for ... measuring instruments with thermistor pickups. A classification of Czechoslovak ...-type thermistors series ...15 and ... is given according to their most advantageous application in ... and control engineering. The author derives numerically the ...-thermistor resistance (R) as a function of the ambient temperature (ϑ'_0), the heating current (I), and the coefficient of ... passage from the bead to the environment (k). Individual functions are presented graphically as well as the total function R = f(ϑ'_0, I, k). According to their characteristics, Czechoslovak

Card 1/2

A contribution to determining ... [illegible]/62/[illegible]
[illegible]7/[illegible]

WSP thermistors series [illegible] are most suitable for temperature measuring, while WSP thermistors series [illegible]8 are most suitable for measuring flow rates of liquids and gases (anemometers), for contactless level gages, vacuum measuring, relative moisture measuring in gases, etc. There are 5 figures.

ASSOCIATION: Ústav přístrojové techniky ČSAV, Brno (Instrumentation Institute, Czechoslovak AS, Brno)

SUBMITTED: May 4, 1962

Card 2/2

PUK, S.; PISTELKA, Z.

Results of the surgical treatment of vertical heterotropias. Cesk. oftal. 18 no.2:107-111 Mr '62.

1. Ocni oddeleni OUNZ v Kromerizi.
(STRABISMUS surg)

PISTELKA, Z.; DOSTAL, V.; HRONEK, J.; DOCKAL, J.; RYMLOVA, A.; VLCEK, F.

Therapeutic results of combined optic-orthoptic treatment in short-term evaluation. Cesk. ofth. 14 no.6:437-443 Dec 58.

1. Ocni oddeleni OUNZ u Kromerizin, zast. primar dr. A. Dolenek.
(STRABISMUS, ther.
combined optic-orthoptic ther. (Cz))
(AMBLYOPIA, ther.
same)
(ORTHOPTICS, in various dis.
combined orthoptic-optic ther. in amblyopia & strabismus (Cz))

PISTINJAT, Mitar

Some problems related to the organization and operation of the American railroads. Zelezni e Jug 19 no.4:35-40 Ap 63.

PISTOLENKO, V.

Circumspection during the flight. Kryl.rod. 13 no.7:16 Jl '62.
(MIRA 16:2)

1. Komandir zvena Vitebskogo aerokluba.
(Flight)

JELINEK, [illegible]; PISTOLKA, [illegible]

A simple [illegible] ... for low temperatures. [illegible]

PISTELJIC, Drago, sanitetski major d-r

Gneral considerations on psychopathies and the problem of psychopathies in the military environment. Voj.san.pregl., Beogr. 17 no.7/8:820-823 Jl-Ag '60.

1. Vojnomedicinska Akademija u Beogradu, Klinika za zivcane i dusevne bolesti
(MENTAL DISORDERS)
(PSYCHOLOGY MILITARY)

PISTELJIC, Dusan.

Adie syndrome. Spr arhiv lekar 82 no.3:417-423 Mr '54. (MEAL 3:6)

1. Klinika za ocne bolesti Medicinskog fakulteta u Beogradu, upravnik: prof. dr. Djordje Nesic. (Rad je Urednistvo primilo 27-VII-1953 god.)
(ADIE SYNDROME)

PISTELJIC, Dusan

STANKOVIC, Ivan, asist. dr.; PISTELJIC, Dusan, dr.

The syndrome of edematous noutitis of the optic nerve. Srpski arh. celok. lek. 82 no.6:758-764 June 54.

1. Klinika za ocne bolesti Medicinskog fakulteta u Beogradu, upravnik prof. dr. Djordje Nesic. (Rad je urednistvo primilo 28. XI.1953 god)

(NERVES, OPTIC, dis.
noutitis, edematous)

PISTELKA, Z.; MATOUSKOVA, S.

Our experience with the treatment of excentric fixation in amblyopia using Cuppers's after-image method. Cesk. ofth. 15 no.4:270-274 Aug 59.

1. Ocni odd. OUNZ v Kromerizi, zastupujici prim. MUDr. A. Dolenek. (STRABISMUS, compl.) (AMLYOPIA, compl.)

DOLENEK, A.; PISTELKA, Z.; technicka spoluprace SETNICKA, M.

On the problem of erysiphake and pharcoerysis. Cesk. oftal. 18 no.1:62-65 Ja '62.

1. Ocni klinika lek. fak. PU v Olomouci, prednosta prof. dr. V.Vejdovsky Ocni oddeleni OUNZ v Kromerizi, zastupujici prednosta dr. A. Dolenek:

(CATARACT EXTRACTION)

PISTINJAT, M.

A partial review of the article "The Survey of the Problem of the Varazdin-Golubovec Route." p. 27.
(Zeleznice, Vol. 13, no. 3, March 1957. Beograd, Yugoslavia)

SO: Monthly List of East European Accessions. (EEAL) LC. Vol. 6, No. 7, July 1957. Uncl.

PISTINJAT, M.

Improving the bonus system. p. 28.

Periodical: ZELEZNICE.

Vol. 15, no. 3, Mar. 1959.

TECHNOLOGY

SO: Monthly List of East European Accessions (EEAI) LC

Vol. 8, no. 4
April 1959, Uncl.

GLADKOV, N., zasluzhennyy master sporta; RATSEISKAYA, M., zasluzhennyy master sporta; IL'CHENKO, V., zasluzhennyy master sporta; VERETENNIKOV, M., master sporta; OSTROVSKIY, P., master sporta; ZUBOVA, V., master sporta; CHERNOV, B., master sporta; ZAYTSEV, S., master sporta; PISTOLENKO, V., master sporta; POCHERNIN, V., master sporta

Toward new sportive achievements. Kryl.rod. 13 no.4:[illegible]
(MIRA 15:[illegible])

(Aerial sports)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013411

[illegible], V.

"Our construction industry should use more fire-[illegible] material."

[illegible] (Teknika) Vol. 4, no. [illegible], [illegible] Oct. 1957
Tirane, Albania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

PISTOL'KORS, A. A.

"Radiants Resistant of Beam Antenna," Proceedings of the American Society of Radio Engineers, Vol. 17, p. 562, 1929

PISTOL'KORS, A. A.

"Theory of a Nonsymmetrical Two-Conductor Line," Nauchno-Te[illegible]eskiy [illegible] Elektrosvyazi, No.1 (1[illegible]), 1[illegible]7

PISTOL'KORS, A. A. and NEYMAN, M. S.

"Instrument for Direct Measurement of the Coefficient of Running Waves in Feeder Cables," Elektrosvyaz, No. [illegible], 19[illegible]1

PISTOL'KORS, A. A.

"Theory of a Ring Type Diffraction Aerial. I," Zhur. Tekh. Fiz., [illegible], No.[illegible], [illegible]

Leningrad Inst. Communications

PISTOLJKORS, A. A.

3A

B 66
K

Calculation of the susceptance of diffraction aerials. PISTOLJKORS, A. A. *J. Tech. Phys., USSR*, 16 (No. 1) 3-10 (1946) *In Russian.* Assuming that the idealized conducting plane is infinitely thin, a diffraction aerial can be considered as a slot in such a plane, the "dual" method being then applicable. Maxwell's equations are derived and the electric and magnetic field vectors are shown to be interchangeable. The electric field distribution along the slot and the surface currents on the plane can be calculated, thus determining the admittance of the linear slot aerial.

A. J.

antennas
math

PISTOLKORS, A. A.

5 A

B 6 C

a.

Propagation of electromagnetic energy along a slot in a conducting plane. I. Travelling wave. PISTOLKORS, A. A. *J. Tech. Phys., USSR*, 16 (No. 1) 11-20 (1946) *In Russian.*—The case of a travelling flat wavefront along the slot is treated analytically and the solutions of the differential equations interpreted physically. The practical example of a plane with a thickness/slot-width ratio of 0·1 is considered. The potential distribution curve across the slot is plotted. A. L.

PISTOLKORS, A. A.

5A

BC6

a

621.392.1 : 538.566 → 82 482

Propagation of electromagnetic energy along a slot in a conducting plane. II. General case. Pistolkors, A. A. *J. Tech. Phys., USSR*, 16 (*No.* 1) 21-34 (1946) *In Russian*.—The general case of electromagnetic energy travelling along a slot is represented by simultaneous appearance of a flat wave moving along the slot and the radiation of a cylindrical wave by the slot. Mathieu equations are solved for a plane of finite thickness, and the results are applied for the general case of a cophasal diffraction aerial. A. L.

PA-26T92

PISTOL'KORS, A. A.

USSR/Physics
Fields, Electromagnetic
Conductors

Dec 1946

"Concentrated Electromagnetic Excitation of a Conductive Groove," A. A. Pistol'kors, 10 pp

"Zhur Tekh Fiz" Vol XVI, No 10

The electromagnetic field during concentrated excitation of the groove can be represented as a superposition of an infinitely large number of "individual waves" of the groove, whose distribution constant is determined by systematic roots of Henkel's function of the first class and first degree. These are so stable that notwithstanding the separate waves which run along the axis of the groove, they guarantee a transformation to zero of the tangent which is compounded by the electric field on its surface. 26T92

PA 26T98

USSR/Physics Dec 1946
Waves, Electromagnetic
Conductors

"Electromagnetic Waves in Grooves," A. A. Pistol'kors, 26 pp

"Zhur Tekh Fiz" Vol XVI, No 10

Discusses the effect of flat electromagnetic waves on cylindrical conduits of infinite length. Brief description of the elliptical system of coordinates, Mat'ye's function, and formulae for conduits of finite lengths. This is followed by a discussion of the case where the conduit is infinite in length, and the electromagnetic fields set up in the conduit. As a means of illustrating the various formulae and theories, the author uses

ID 26T98

USSR/Physics (Contd) Dec 1946

the case of a cophasal slot antenna. Submitted by B. A. Vvedenskiy at the Section of Electro - Communications, of the Department of Technical Sciences, Academy of Sciences of the USSR.

ID 26T98

PISTOL'KORS, A. A.

PISTOLKORS, A. A.

Pistolkors, A. A. Radiation from longitudinal slits in a circular cylinder. C. R. (Doklady) Acad. Sci. URSS (N.S.) 52, 127–130 (1946).

The author obtains a formula for the radiated field from a system of identical longitudinal slits located arbitrarily (but with no relative axial displacement) on the surface of an infinitely long perfectly conducting circular cylinder, assuming that the field distribution over all the slits is the same. In the case of a single narrow slit curves are drawn showing the radiation pattern in the plane perpendicular to the axis of the cylinder for various values of the cylindrical radius. *M. C. Gray* (New York, N. Y.).

Source: Mathematical Reviews, Vol 8, No. 5

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 392 - I

BOOK
Author: PISTOL'KORS, A. A.
Full Title: ANTENNAS
Transliterated Title: Antenny

Publishing Data
Originating Agency: None
Publishing House: State Publishing House for Literature on Problems of Communications and Radios
Date: 1947 No. pp.: 479 No. of copies: 10,000

Editorial Staff
Editor: None Tech. Ed.: None
Editor-in-Chief: None Appraiser: None
Others: The author expresses his gratitude to Dr. V. N. Kessenikh and Dr. G. Z. Ayzenberg for their constructive critism and to the Assistant Minister of Communications, S. I. Alyushin for his assistance.

Text Data
Coverage: The main emphasis in this work is placed upon the theory of antennas, particularly on the physics of antenna operation. The general theoretical treatments is followed by a detailed study of various types of antenna installations grouped according to wavebands. Some attention is also given on antenna types used by permanent radio installations of the Ministry of Communications.

1/2

Antenny

The treatment of the book is largely abstract with considerable mathematical analysis and performance diagrams. There are relatively few photos of other examples of actually manufactured units. The book does not deal with antennas used for aircraft, shipping, radar, or communications. Likewise, the structural aspect of antenna installations are omitted.

TABLE OF CONTENTS

Purpose: Intended as a textbook for courses on antennas read at higher communications institutes.

Facilities: Leningrad Institute of Communications Engineers

No. of Russian and Slavic References: Some Soviet and foreign sources are mentioned either in footnotes or in the text

Available: Library of Congress

Aerials & Transmission Lines

W.E

1900

Radiation from Longitudinal Slots in a Circular Cylinder [illegible] Pistol'kors [illegible]

A mathematical investigation of the radiation [illegible] longitudinal slots arbitrarily [illegible] on the surface of an infinitely long ideally [illegible] long cylinder (Fig. 1) the diameter of which [illegible] comparable with λ. The field on the surface [illegible] the cylinder is represented by superimposed [illegible] corresponding to the [illegible] harmonics [illegible]. Methods are indicated [illegible] Fourier series [illegible] the field set up at a great distance [illegible] A formula [illegible] order by a harmonic of order [illegible] The field set up [illegible] this field is derived [illegible] the sum [illegible] of the fields [illegible] is equal to the [illegible] A formula [illegible] all harmonics [illegible] single slot is also [illegible] field [illegible] The radial [illegible] diagrams are plotted [illegible] the field is also found [illegible] below.

1948

Aerials & Transmission Lines

WE

1267

Radiation from Transverse Slots on the Surface of a Circular Cylinder

[illegible] component of the electric field [illegible] circular cylinder [illegible] and methods are [illegible] components of the electric [illegible] Using these results the [illegible] fields at a great distance from the [illegible] calculated. The discussion is illustrated [illegible] which polar diagrams are [illegible]

1948

PISTOL'KORS, A. A. Prof.

"The Principle of Duality in the Theory of Diffraction of Electromagnetic Waves in Plane Screens," Dokl. AN SSSR, 4?, No.7, 1948

PISTOL'KORS, A. A.

PA 245T97

USSR/Physics - Electromagnetic Field 11 Oct 52

"Theory of a Conductor Near Boundary of Separation of Two Media," A. A. Pistol'kors, Corr Mem, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol 86, No 5, pp 941-943

Analyzes electromagnetic field of cylindrical symmetry produced around conductor located on boundary between 2 media. In case of dielectric without losses, field is found to be defined by integration over cross section of cylinder; while in case of losses, the dielectric contains cylindrical waves as observed in underground cables. Received 17 Jul 52

245T97

PISTOLKERS, A. A.

Electrical Engineering Abstracts
May 1954
Telecommunication

2210. Use of Mathieu functions for computing field distribution in an antenna to obtain a given directional diagram. A. A. PISTOLKERS. *Dokl. Akad. Nauk SSSR*, 89, No. 5, 849-52 (1953). *In Russian*. English translation, *U.S. National Sci. Found*. NSF-tr-113.

The field distribution is studied for an infinite straight slot of given width in a limitless conducting sheet. If a specified directional radiation pattern is expressed as a Fourier series it is easy to express the field in terms of Mathieu functions. The method is illustrated for the directional pattern $f(\eta) = \sin(\pi \cos \eta)/\sin \eta$. The conditions for precise or approximate solutions are deduced.

W. T. BLACKBAND

PISTOL'KORS, A. A.

"Electromagnetic Waves in a Rectangular Waveguide Filled with a Magnetized Ferrite," Dokl. AN SSSR, [illegible], No.6, 1954

USSR/Electronics - Wave Propagation FD-2222

Card 1/1 Pub 90-2/12

Author : *Mikaelyan, A. L., and *Pistol'kors, A. A.

Title : Electromagnetic waves in magnetized ferrites (ferromagnetic nonmetals) with conducting boundaries

Periodical : Radiotekhnika, 10, 14-24, Mar 1955

Abstract : The problem of electromagnetic waves propagation in ferrites, under a steady magnetic field and having one or two ideally-conducting surfaces, is discussed in details in this article. A well known method of partial waves is applied to study the above problem, which cleary brings out the physical aspect of the phenomenon. Maxwell's equation is applied to obtain the mathematical representation of wave propagation in the ferrites mass, and their reflections from the ideally-reflecting surfaces. It is pointed out that the reflected electromagnetic wave splits into two waves, having different amplitudes and coefficients of propagation. An analysis of the electromagnetic wave propagation at various angles with respect to the direction of the magnetic field is presented in this article. Two USSR references cited.

Institution: *Active members of the All-Union Scientific and Technical Society of Radio Engineering and Electric Communications imeni A. S. Popov, Moscow

Submitted : 1 Sep 1954

BONCH-BRUYEVICH, Mikhail Aleksandrovich, inzhener; PISTOL'KORS, A.A.; VOLOGDIN, V.P. [deceased]; KUGUSHEV, A.M., professor; NIKITIN, B.A., professor; OSTROUMOV, B.A., professor; OSTRYAKOV, P.A., professor [deceased]; BONCH-BRUYEVICH, A.M., dotsent; ZENDEL', P.Ya., tekhnicheskiy redaktor

[A collection of works] Sobranie trudov. Moskva, Izd-vo Akademii nauk SSSR, 1956. 526 p. (MLRA 9:10)

1. Chlen-korrespondent AN SSSR (for Bonch-Bruyevich,M.A., Pistol'kors, Vologdin)
(Radio)
(Bonch-Bruevich, Mikhail Aleksandrovich, 1888-1940)

PISTOL'KORS, [illegible] Cor. Mbr., AS USSR

"Modern antennas," a chapter in the book Radio and Electronics and Their Technical Applications, by A. I. Berg, et al., Moscow, 195[illegible]

Summary of chapter 1?71291

TERPIGOREV, A.M., akademik, red.; PISTOL'KORS, A.A., red.; RYLINA, Yu.V., tekhn.red.

[Terminology of radio wave propagation] Terminologiia rasprostraneniia radiovoln. Moskva, 1957. 25 p. (Sborniki rekomenduemykh terminov, no.47) (MIRA 11:1)

1. Akademiya nauk SSSR. Komitet tekhnicheskoy terminologii.
2. Chlen-korrespondent AN SSSR (for Pistol'kors).
(Radio waves--Terminology)

BERG, A.I., akademik; VVEDENSKIY, B.A., akademik; VEKSHINSKIY, S.A., akademik; KOTEL'NIKOV, V.A., akademik; MINTS, A.L.; PISTOL'KORS, A.A.; SIFOROV, V.I.

Search, be daring, invent! Radio no.1:1 Ja '57. (MLRA 10:2)

1. Chlen-korrespondent AN SSSR (for Mints, Pistol'kors, Siforov). (Amateur radio stations)

AUTHORS. A.A.

TITLE. Main Stage[illegible] Development [illegible] Theory [illegible] A[illegible]
and Feeders [illegible] the USSR. [illegible]

PERIODICAL: [illegible]

ABSTRACT. [illegible]
by M.V. Sh[illegible]
[illegible]
[illegible] by I.[illegible]
[illegible] radiat[illegible]
[illegible] D. A. [illegible]
[illegible]
antennae [illegible]
developed by A. A. [illegible]
During the [illegible]
wave techni[illegible]
antennae. The [illegible]
[illegible] the "[illegible]
the [illegible]

[illegible] SSR.

[illegible] M. [illegible] During the late Th[illegible] C. Ra[illegible] an anal[illegible] antenna [illegible] while, [illegible] investigated [illegible] highly-directi[illegible] proposed [illegible] M.A. L[illegible] differential [illegible] A[illegible] and G.Ya. L[illegible] thickness wer[illegible] A.[illegible] N.[illegible] B[illegible]a. The first w[illegible]

Card 2/4

9.4000

S/109/60/005/07/006/024
E140/E163

AUTHORS: Pistol'kors, A.A., and Syuy Yan'-Shen

TITLE: Free Electromagnetic Oscillations of a Spherical Resonator with Magnetised Ferrite Sphere in the Centre

PERIODICAL: Radiotekhnika i elektronika, Vol 5, No 7, 1960, pp 1085-1091 (USSR)

ABSTRACT: The theory of free electromagnetic oscillations of a spherical resonator with a small ferrite sphere at the centre, magnetised by a constant field, is studied. The resonance conditions of the system are investigated and expressions are derived for the decremental attenuation of the oscillations as a function of the half-width of the ferromagnetic resonance curve. The derivation is first carried out neglecting wall losses, the effect of which is then estimated. A new resonance mode is found. There are 1 figure and 3 references, of which 1 is English and 2 are Soviet.

SUBMITTED: January 16, 1960

Card 1/1

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013411

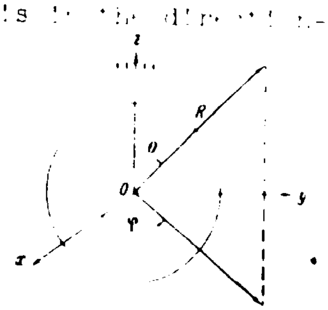
.4.2200

AUTHORS: Pistol'kors, A. A., Hs' Yen-sheng

TITLE: Oscillations of a Small Gyrotropic Sphere in the Field of a Plane Wave

PERIODICAL: Radiotekhnika i elektronika, ..., ... 14 (USSR)

ABSTRACT: The main subject of this study is excitation of oscillations in gyrotropic small radius (ferrite) spheres placed in the field of plane waves. Let a plane wave spread along the ... axis in the direction ...



Card 1/...

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013411

Oscillations [illegible]
In the Field [illegible]

Card [illegible]

For the case under discussion

$$u_1 = \sum u_{1n}^{1} [illegible] \sum [illegible] P_n^1(\cos\theta)\sin [illegible]$$

$$[illegible] \sum [illegible] \sum [illegible] (k_2 r) P_n^1(\cos\theta)\cos [illegible]$$

where E [illegible] are [illegible] and magnetic [illegible] potentials [illegible] the wave; k [illegible] is wave coefficient [illegible] medium; [illegible] (k r) is a spherical radius function [illegible] first order; P_n^1 (cos θ) are Legendre polynomials. The analysis is based on the solution given by Walker for a magnetostatic problem (rot $\vec{h}$ = 0, div [illegible] = [illegible]).

Card [illegible] [illegible] [illegible] [illegible] Walker magnetostatic [illegible]

Oscillations of a Small Gyrotropic Sphere 77188
In the Field of a Plane Wave SOV ...

Ψ is [illegible] the Debye magnetic potential [illegible]

Ψ = [illegible]

Potential Ψ being defined, Debye potential [illegible] a wave, reflected from ferrite, may now be found. It is a spherical wave of transverse electrical type that has no radial component of the electrical field E_r. For exact determination of the diffraction problem, the reflected spherical wave of another type, i.e., the transverse magnetic wave must be found. This wave is determined by the Debye electrical potential [illegible] that may be obtained solving the problem of electrical field in ferrite. For this purpose initial equations are given in the form:

Card 4/14

Oscillations of a Small Gyrotropic Sphere in the Field of a Plane Wave

[illegible]
SOV [illegible]

$$\mathrm{rot}\,\vec{E} \quad \frac{1}{c}\frac{\partial \vec{b}}{\partial t}$$

$$\mathrm{div}\,\vec{E} \quad 0$$

Magnitude of the induction $\vec{B}$ must be obtained from the solution of first part of problem of the magnetic field and Debye potential (8). Analysis is made in two steps: (1) Excitation is explained of the magnetic field in the ferrite, as well as the amplitude of the reflected transverse electrical wave. (2) This is also explained for the electrical field in ferrite, as well as for the reflected transverse magnetic wave. For small $k_0 r$ values, the field components are given in the form:

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Oscillations of a Small Gyrotropic Sphere in the Field of a Plane Wave

[illegible]
SOV/[illegible]

$$[illegible] \quad (7)$$

where potential

$$\Psi_1 \ldots = \sum [illegible]$$

For small [illegible] components of the magnetic field of the reflected wave may be defined in the similar way using potential

$$[illegible] = \frac{\partial}{\partial} \sum_{0}^{\infty} [illegible]$$

Card 6/14

[illegible]

In the Field

where

(17)

Osc[illegible] of [illegible]
in the Field of a Pla[illegible]

[illegible]

This [illegible] equation is [illegible] scalars [illegible] components of vector $\vec{A}$ in three [illegible] coordinates. [illegible] these three equations and [illegible] the spherical system of coordinates, [illegible] and E [illegible] φ [illegible] ν [illegible] ν [illegible] ν [illegible] of the [illegible] potential [illegible] [illegible] equations may be written:

[illegible]

$E_{1\theta}$ [illegible] for r [illegible]

Card 1[illegible] $E_{1\varphi}$ [illegible]

Oscillations of a Small Gyr[illegible]
In the Field of a Plane W[illegible]

Here ϵ is [illegible] permeability [illegible] Σ [illegible]

[illegible] $\Psi = \sum F_i \Psi$ [illegible]

[illegible] Ψ [illegible]

[illegible] φ [illegible]

Card [illegible]

Oscillations of a [illegible]
In the Field of a Plane Wave

[illegible] (28)

Where

[illegible]

In Appendix 2 the amplitude [illegible] of the corresponding potential [illegible] of the [illegible] transverse magnetic [illegible] is [illegible]

[illegible]

Card 13/14

SUBMITTED:

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013411

MARKOV, Grigoriy Timofeyevich. Prinimali uchastiye: TERESHIN, O.N., dotsent; VASIL'YEV, Ye.N., dotsent; DUPLENKOV, D.A., aspirant; SAZONOV, D.M., aspirant; NOSOV, O.N., inzh. PISTOL'KORS, A.A., retsenzent; DOLUKHANOV, M.P., prof., retsenzent; KOCHERZHEVSKIY, G.N., dotsent, red.; VORONIN, K.P., tekhn.red.

[Antennas] Antenny. Moskva, Gos.energ.izd-vo, 1960. 534 p. (MIRA 14:4)

1. Chlen-korrespondent AN SSSR (for Pistol'kors).
(Radio--Antennas)

PISTOL'KORS, A.A

PHASE I BOOK EXPLOITATION SOV/5135

Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova

100 let so dnya rozhdeniya A.S. Popova; yubileynaya sessiya (One Hundredth Anniversary of the Birth of A.S. Popov; Anniversary Session) [Moscow] Izd-vo AN SSSR, 1960. 322 p. Errata slip inserted. 2,800 copies printed.

Sponsoring Agency: Akademiya nauk SSSR.

Chief Ed.: A.L. Mints, Academician; Editorial Board: G.D. Burdun, A.D. Vol'pert, I. Ya. [illegible], L. I. Gutenmakher, I.I. Grudnev, S.D. Devyatkov, L.A. Zhekulin, A.I. [illegible], V.A. [illegible], V.I. Siforov and S.I. Chistyakov; Ed. of Publishing House: L.V. [illegible]; Tech. Ed.: S.G. Markovich.

PURPOSE: This collection of reports is intended for scientists and technicians working in radio engineering and telecommunications.

COVERAGE: The reports included in this collection were submitted at the scientific meeting held in 1959 by the Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific and Technical Society of Radio Engineering and Telecommunication imeni A.S. Popov) in commemoration of the 100th anniversary of A.S. Popov's birth. Only 59 of the more than 300 reports submitted at the meeting are included. The remainder are published in the periodicals of the AS USSR, State Committees, the Ministry of Communications, and the Society imeni A.S. Popov. The book contains the reports read at plenary sessions by A.N. Shchukin, Academician, A.A. Pistol'kors, Corresponding Member, AS USSR, and E.I. Adirovich and L.I. Gutenmakher, Professors, as well as those selected as the most interesting given in the following sections by their respective chairmen: Theory of Information, Antenna Systems, Receiving Devices, Wire Communications, Television, Electronics, Radio Measurements, General Radio Engineering, Transmitting Devices, Radio Wave Propagation, Electron Microscopy, Radio Broadcasting, Electroacoustics and Sound Recording, Electronic Computer Engineering, and SHF Ferrite Devices. These chairmen were on the Editorial Board which prepared the papers for publication. References accompany most of the reports.

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SOV/109-4-6-1/27

AUTHORS: Pistol'kors, A.A., Kaplun V.A. and Knyazeva, L.V.

TITLE: Diffraction of Electromagnetic Waves at a Dielectric or a Semiconductor Sheet (O difraktsii elektromagnitnykh voln u dielektricheskogo ili poluprovodyashchego lista)

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 6, pp 911 - 919 (USSR)

ABSTRACT: The system considered is illustrated in the diagram of Figure 1. For the purpose of analysis it is assumed that the surface waves can be neglected. The external surface of the sheet is infinite along the axis z and coincides with the plane x = 0 . The surface is limited in the direction of the axis y by co-ordinates y = 0 and y = b . A plane wave propagates from the upper semi-space and forms an angle φ_0 with the plane x = 0 . It is necessary to find the field at a point M which is situated in the lower semi-space. For this purpose the elementary fields at point M , due to the electric and magnetic currents in the plane x = 0 , should be added. If the amplitude of the plane wave is unity, it is necessary

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to introduce a factor $Te^{i\gamma}$ which characterises the attenuation of the wave during its passage through the sheet and the accompanying phase shift. The electric field at point M is given by the sum of three integrals

$$E = \int_{\infty}^{0} F(E_t, H_t, y)dy + Te^{-i\gamma} \int_{0}^{b} F(E_t, H_t, y)dy + \int_{b}^{\infty} F(E_t, H_t, y)dy \quad (1)$$

where E_t and H_t are the tangential components of the electric and magnetic field at the plane $x = 0$; F is the function which takes into account the effect of the plane $x = 0$. Eq (1) can also be written as (2) [illegible]

SOV/109-4-6-1/27

Diffraction of Electromagnetic Waves at a Dielectric or a Semiconductor Sheet

where $Me^{-iv} = 1 - Te^{-i\Psi}$. If the electrical vector of the plane wave is parallel to the axis z (see Figure 1) the electric and magnetic field components are given by Eqs (3). The fields at the external surface of the dielectric layer are given by Eqs (4). The electric field at point M can be evaluated from Eq (5). The z-component of this field is given by Eq (6). This can also be written as Eq (9) or Eq (10). The integral of Eq (10) can be evaluated approximately by employing the stationary-phase method. The first approximation of the integral is given by Eq (12). The final expression for E_z component is, therefore, given by Eq (18), where the integral with respect to t can be evaluated from one of Eqs (17) depending on the position of point M with respect to the shadow. It is shown in the appendix to the paper that Eq (18) is valid also for $y < 0$, i.e. when point M lies in the third quadrant. The variable t in Eq (18) is defined by the first equation on p 915.

Card 3/5 The magnetic field components can easily be evaluated by

Diffraction of Electromagnetic Waves at a Dielectric or a Semiconductor Sheet SOV/109-4-6-1/27

using Eq (17). The above formulae are employed to investigate two special cases. In the first case the wave does not undergo any attenuation but is delayed by half a period, i.e. T = 1 and $\psi = \pi$. If point M is to the right of the boundary and the shadow the electric field is given by the fifth equation on page 917. On the other hand, for a point situated to the left of the boundary, the field is given by the last equation on p 917. If the sheet has a finite width and the observation point is symmetrical with respect to the boundaries the field may be evaluated by using the variables defined by the first three equations on p 918. The theory was verified experimentally by using a sheet made of plexiglass (see Figure 4). The experiment was carried out at the wavelength of 3.2 cm and the sheet had dimensions of 100 x 100 x 2 cm. The sheet was situated on a rotating aluminium screen. A probe was placed in the centre of the screen (Figure 4). The experimental results are plotted

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SOV/109-4-6-1/27

Diffraction of Electromagnetic Waves at a Dielectric or a Semiconductor Sheet

in Figure 5 ('dashed' curve) together with the theoretical values (solid curve). It is seen that the theory is in good agreement with the experimental data There are 5 figures and 4 references, 3 of which are Soviet and 1 English.

SUBMITTED: July 9. 1958

Card 5/5

ПРОГРАММА РАБОТЫ НАУЧНОЙ СЕССИИ

ПЛЕНАРНЫЕ ЗАСЕДАНИЯ

8 июня

в 17 часов

Открытие сессии

А. Н. [illegible]

[illegible]

Ø (В. В. [illegible]) Full text [illegible] (in Russian)

[illegible]

YY [illegible]

12 июня

(с 10 до 14 часов)

В. И. Сифоров

[illegible]

А. А. [illegible]

[illegible]

А. Л. [illegible]

[illegible]

Report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNORiE), Moscow, 8-12 June.

[illegible]

[illegible]

16 СЕКЦИЯ ФЕРРИТОВЫХ УСТРОЙСТВ СВЧ

Руководитель А. Л. [illegible]

11 июня

(с 10 до 16 часов)

[illegible]

В. В. Зубков

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

11 июня

(с 18 до 22 часов)

[illegible]

[illegible]

[illegible]

[illegible]

Report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNORiE), Moscow, 8-12 June. 1959

NADENENKO, Sergey Ivanovich; PISTOL'KORS, A.A., retsenzent; MARKOV, G.T., prof., retsenzent; KOCHERZHEVSKIY, G.N., kand.tekhn.nauk, otv. red.; VORONOVA, A.I., red.; SHEFER, G.I., tekhn.red.

[Antennas] Antenny. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1959. 550 p. (MIRA 12:11)

1. Chlen-korrespondent AN SSSR (for Pistol'kors).
(Antennas (Electronics))

PISTOL'KORS, A. A.

[Transactions of the] Conference on the Occasion of the SOV/108-13-8-11/12
40th Anniversary of the Nizhniy-Novgorod Radio Laboratory imeni V. I. Lenin (22-24 May at Gor'kiy,) (Radiotekhnika, 13:8, 71-9, '58)

K. M. Kosikov reported in short on two important discoveries of M. A. Bonch-Bruyevich in the field of the propagation of radio waves (1932-1933).-

A. A. Pistol'kors, B. A. Ostroumov, N. N. Izotov, and V. I. Se spoke about the Tver' radio station as well as of the Nizhniy--Novgorod Radio Laboratory.

The participants in the conference visited the laboratory establishments of the NIRFI at Gor'kiy State University where they became acquainted with the observations made according to the program of the International Geophysical Year.

Aboard the motor ship "Ukraina" by which the participants in the conference sailed to Gor'kiy a readers' conference of the periodical "Radiotekhnika" was held. It was arranged by the Chief Editor M. R. Reznikov and the First Editor R.D.Mel'nikovs-kaya. M. R. Reznikov spoke about the activity of the editorial staff. Ya. M. S rin (Moskow) stressed the fact that the periodical supplies only little information on the problems turning up in industry. I. M. Kogan (Moskow) was of opinion that more articles concerning applied theory should be dealt with. A. V. Bogdanov (Leningrad) suggested to publish a special

Card 3/4

PISTOL'KORS, A.A.; MARSHAK, M.L.

Reflection and refraction of electromagnetic waves in a rectangular wave guide on the boundary of air and ferrite. Izv.vys.ucheb.zav.; radiotekh. no.5:594-598 S-O '58. (MIRA 12:1)

1. Rekomendovano Institutom radiotekhniki i elektroniki AN SSSR. (Radio waves)

AUTHOR: Pistol'kors, A. A., Corresponding Member of the AS USSR 30-58-4-13/44

TITLE: Problems of the Technique of Ultra-High Frequencies (Problemy tekhniki sverkhvysokikh chastot)

PERIODICAL: Vestnik Akademii Nauk SSSR, 1958, Nr 4, pp 74-75 (USSR)

ABSTRACT: From October 21-26, 1957 the International Congress on Circuits and Antennae of Ultra-High Frequencies took place in Paris. It was called by the French Scientific Technical Society of Radio Engineers with the trade unions and radio technical firms taking part in it. In June 1956 the same organizers held a Congress on the Electronics of Ultra-High Frequencies. 166 reports were delivered. The meetings were simultaneously organized in 5 excellently furnished subterranean auditories of the National Conservatory for Arts and Trade. In a small exhibition a clystron calculated for a maximum power of 30 MW and an average of 20 kW attracted great attention. The topics of the lectures were manifold, the greatest interest was attracted by reports on the

Card 1/3

Problems of the Technique of Ultra-High Frequencies 30-58-4-13/44

use of ferrites and wave transmission over great distances The attention of radio specialists is at present directed to the new possibilities to generate oscillations of ultra-high frequencies by means of ferrites as well as to amplify them and to transform the frequency by such means. Only one report by the American F.R. Mogentaler was devoted to this topic, although, as the author of this paper could learn from discussions, such kind of work is carried out on an extremely wide basis in the States. The Soviet reports on theoretical works and experiments in this field impressed the audience. The author regrets that no reports on the results of American research in this field were given. The Soviet delegation had the possibility to speak with French specialists as well as to visit the Laboratory for the Application of Magnetism in Bel'vyu . The author of this paper was impressed by the scale and the accuracy of the works conducted there and he mentions that the researchers there had more than 20 furnaces for various burning conditions at their disposal. Finally the aut or mentions the good organization of the congress as well as the friendly atmosphere there, which was

Card 2/3

very much favorable for establishing contacts.

1. High frequency communication systems—Theory

Card 3/3

AUTHOR Pist l'k rs, A.A. 108-3- -. /.

TITLE. Paris Congress on Ultra-high-frequency Currents and Antennae (Parizhskiy kongress po tsepyam i antennam SBCh)

PERIODICAL. Radiotekhnika i Elektronika, 1958, v 1 III, nr , pp 724 - 726 (USSR)

ABSTRACT. This international congress took place in Paris during October 21 - 2 , 195 . It was organised by the French Scientific Technical Institute of Radio-engineers and by various radio-engineering firms. The congress was attended by a Soviet delegation consisting of six persons and led by Corresponding Member of the Ac.Sc. USSR A.A. Pistol'kors. The congress was attended by about 00 delegates, who read 1 technical papers. The members of the Soviet delegation read 6 papers. 4 of the Soviet papers dealt with the application of ferrites at ultra-high-frequencies, while of the lectures were devoted to the problems of long-distance communications by means of cylindrical waveguides.

AVAILABLE. Library of Congress

Card 1/1

1. Radio engineers-Conference 2. Ultra high frequency communication systems

[illegible], A. A.

A. A. [illegible], [illegible]: "[illegible] electromagnetic [illegible] e." Scientific Session Devoted to "Radio Day", May [illegible], Trudy [illegible], [illegible], 9 Sep.

Higher types of waves arise on the air-magnetized ferrite interface in a waveguide because of the substantial difference in the magnetic field configuration in both media. In order to increase the accuracy of [illegible] the ferrite parameters it is of interest to explain the specific [illegible] the higher types in the phenomena under consideration.

A theoretical analysis of the question leads to an infinite system of equations which admit of solution successive approximations for small [illegible] of ferrite magnetization ($k/\mu < 0.4$).

An investigation of the expressions obtained leads to the conclusion that the higher type waves exert almost no influence on the reflection coefficient of the fundamental H_{01} wave for small ferrite magnetizations.

PISTOL'KORS, A. [illegible]

A. A. PISTOL'KORS, M. I. Marshak: "Electromagnetic [illegible] through a ferrite plate [illegible]." Scientific Session [illegible] "[illegible]", May 195[illegible], [illegible], [illegible].

The question of electromagnetic wave transmission through a ferrite plate in a waveguide is of practical interest, in particular, [illegible] the use of such plates to measure the tensor magnetic permeability [illegible] of a ferrite.

A theoretical analysis of the [illegible] leads to an infinite system of equations whose approximate solution for small values of the ferrite magnetization can be obtained by successive approximations.

The results of computations illustrating the wave transmission through a plate depending on the external magnetic field intensity are presented in the report for various values of plate thickness and [illegible] permittivity of the ferrite.

[illegible]L'[illegible], A. [illegible]

A. [illegible], [illegible], [illegible] "[illegible]" [illegible] Devoted [illegible] "Radio Day", May, [illegible], [illegible]

[illegible]iffraction at a dielectric or semi-[illegible] sheet is [illegible] the [illegible] method [illegible] results are derived which are valid for [illegible] sufficiently far from the [illegible] and the surface of the sheet. [illegible] particular diffraction [illegible] are analyzed.

Corresponding Member, AN SSSR, Laureate of the

PISTOL'KORS, A.A.; KAPLUN, V.A.; KNYAZEVA, L.V.

Diffraction of electromagnetic waves by a dielectric or semiconductive sheet. Radiotekh. i elektron. 4 no.6:911-919 Je '59. (MIRA 12:5)

(Radio waves--Diffraction)

PISTOL'KORS, A.A., laureat zolotoy medali im. A.S. Popova

Aleksandr Stepanovich Popov and modern radio engineering. Elektrosviaz' 13 no.3:3-7 Mr '59. (MIRA 12:4)
(Popov, Aleksandr Stepanovich, 1859-1906)
(Radio)

S/194/61/000/007/065/079
D201/D305

9,1000

AUTHOR: Pistol'kors, A.A.

TITLE: The problem of antenna synthesis

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1961, 34-35, abstract 7 I209 (V sb. 100 let so dnya rozhd. A.S. Popova, M., AN SSSR, 1960, 84-92)

TEXT: The methods are considered of antenna synthesis using partial diagrams, eigen-functions and the Fourier integral. The problem is considered of the field distribution control in the antenna aperture, by means of variation of the phase diagram of the directive gain with the amplitude diagram remaining constant. Evaluation is made of the fundamental possible future approaches to the problem. 15 references. [Abstracter's note: Complete translation] /B

Card 1/1

MINTS, A.L., akademik; PISTOL'KORS, A.A.

"Air levelling in surveying railroad lines" by A.V.Gorinov and others. Reviewed by A.L. Mints, A.A.Pistol'kors. Transp. stroi. 11 no.2:60 F '61. (MIRA 14:3)

1. Chlen-korrespondent AN SSSR (for Pistol'kors).
(Railroads—Surveying) (Aerial photogrammetry)
(Gorinov, A.V.)

PISTOL'KORS, A., laureat zolotoy medali im. A.S.Popova.

Radio electronics has passed the test. Radio no.6:5 Je '61.
(MIRA 14:10)

1. Chlen-korrespondent AN SSSR.
(Radio)

44029
S/109/62/007/011/007/021
D201/D301

9,2571

AUTHOR: Pistol'kors, A. A.

TITLE: Axially-symmetric free oscillations of a small radius gyrotropic sphere

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 11, 1962, 1

TEXT: In the present article the author considers a sphere having not so small a radius, when it is necessary to take into account the effect of wave propagation in the ferrite. Two cases are possible: In the first - the magnetic mode oscillations, with even indices (2, 0), (4, 0), ... and in the second one - the even indices pertain to electric mode oscillations. In the present article the first case only is considered. The suggested method of solution consists in that the dependence on angle θ for a given radius-vector r of the field components within the sphere can be represented by infinite sums of the form $\sum_{n=0}^{\infty} A_n P_n^0$ and $\sum_{n=1}^{\infty} B_n P_n^1$, where A_n and B_n -

Card 1/

coefficients changing with the radius r. In other words A_n [illegible] f(kr), B_n - F(kr), where k - the wave number and F and f [illegible] some functions which are sought in the form of power series kr. P_n^c and P_n^1 [illegible] are Legendre polynomials. Hence the solution of the electrodynamic problem about the free axially symmetrical oscillations of a gyrotropic sphere may be reduced to that of solving a system of two partial differential equations in E_φ and H_φ, whose series solution tends quickly to a limit with successive powers of r provided r is not too large. The coefficients of the first terms of both series, determining the amplitude of oscillations, are found from the boundary conditions at the sphere surface. By equating to zero the determinant of the infinite system of homogeneous equations set up for evaluating these coefficients, it becomes possible to determine the resonant frequencies (of an infinite number, related to each free oscillation [illegible] of [illegible] orders), characteristic for a gyrotropic sphere. The results of the analysis are used by the author to determine the resonant frequencies of self-oscillations of the three first [illegible] u(1 [illegible]) v([illegible]) and u([illegible]) where [illegible] and [illegible] are [illegible]

Card 2/[illegible]

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013411

9

S/109/62/007/001/ ...
Axially-symmetric free oscillations ... D201/D301

tions of r depending on the magnitude of the magnetizing field and on the radius of the sphere. The author acknowledges the help of Sui Yang-sheng in calculations. There are 4 figures and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English language publication reads as follows: L.R. Walker, Magnetostatic modes in ferromagnetic resonance, Phys. Rev., 1957, ... 390.

SUBMITTED: September ..., 1961

Card 3/3

[illegible]

AUTHOR: [illegible]stol'ners, [illegible]

TITLE: [illegible] term "[illegible]" [illegible]

[illegible]: [illegible] elektron[illegible]

ABSTRACT: [illegible] amplifiers [illegible] the coefficient of [illegible] by [illegible] ferrite [illegible] of the [illegible] critical value. The investigation [illegible] vels exceeding the critical value. [illegible] for an amplifier [illegible] ferrite [illegible] centric [illegible] ferrite [illegible] whose line is of [illegible] owing to complex [illegible] to amplifier, the [illegible] An emf producing generator is [illegible] both ends of the line. An emf producing generator is [illegible] a function of the circuit and the amplification is then derived as a function of the

Card 1/2

Application of the ...

...efficient of ... this ... to the spherical ... field in the resonator ... coefficient of ... is discussed in terms of ... regions of stable performance of the amplifier. ... from the shell of the resonator are considered ... of phase shift of the spherical waves ... It is shown ... from the derived ... reduce the amplification factor and the ... for various working conditions of the amplifier. There are ... res and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: October 14, 19..

Card 2/..

ACC NR: AP7005584 SOURCE CODE: UR/0020/67/172/002/0334/0337

AUTHOR: Pistol'kors, A. A. (Corresponding member AN SSSR)

ORG: none

TITLE: The resolution of a hologram

SOURCE: AN SSSR. Doklady, v. 172, no. 2, 1967, 334-337

TOPIC TAGS: holography, laser photography, ~~lasography,~~ hologram resolution

ABSTRACT:
Electrodynamics methods were used to study the resolution of a hologram from a reconstructed image. For the sake of simplicity, a two-dimensional problem was considered (a luminuous line). The analysis of the real image field was carried out by comparing it to the directivity pattern of a cophased array. In the case of a nonsymmetrical distribution of the reproduced luminous line with respect to the hologram, resolution of the latter falls off with the increasing deviation from the normal to the hologram center. The hologram was assumed to be ideally plane and infinitely thin. The hologram resolution was found to be higher along the X-axis

 UDC: 621.378.9.77