No. 1

THE SYNDROME OF CARCINOID AND ACQUIRED VALVE LESIONS OF THE RIGHT SIDE OF THE HEART..........William B. Bean, David Olch and Harry B. Weinberg 1

CIRCULATORY EFFECTS OF MITRAL COMMISSUROTOMY WITH PARTICULAR REFERENCE TO SELECTION OF PATIENTS FOR SURGERY....M. Irené Ferrer, Réjane M. Harvey, Robert H. Wylie, Aaron Himmelstein, Adrian Lambert, Marvin Kuschner, André Cournand and Dickinson W. Richards 7

FACTORS IN THE ETIOLOGY OF CONSTRICITIVE PERICARDITIS
Ralph A. Deterling, Jr. and George H. Humphreys, II 30

CALCIFICATION OF THE PERICARDIUM IN APPARENTLY HEALTHY PEOPLE. ELECTROCARDIOGRAPHIC ABNORMALITIES FOUND IN TRACINGS FROM APPARENTLY HEALTHY PERSONS WITH CALCIFICATION OF THE PERICARDIUM
F. A. L. Mathewson 44

EXPERIENCES WITH A NEW ORAL MERCURIAL DIURETIC—MERPURATE
Jerome G. Kaufman, Arthur Bernstein, Fred Weiss, Emanuel Klosk and Harold S. Feldman 52

THE INFLUENCE OF ADVANCED CONGESTIVE HEART FAILURE ON PULSUS ALTERNANS
Joseph M. Ryan, James F. Schieve, Hugh B. Hull and Beryl M. Oser 60

THE RELATIONSHIP BETWEEN IMPAIRED RETINAL VASCULAR REACTIVITY AND RENAL FUNCTION IN PATIENTS WITH DEGENERATIVE VASCULAR DISEASE
H. O. Sieker, J. B. Hickam and J. F. Gibson 64


ACUTE COMPLETE HEART BLOCK IN DOGS
T. A. Starzl, R. A. Gaertner and R. Robinson Baker 82

THE EFFECT OF EXERCISE ON THE EXCRETION OF WATER BY PATIENTS WITH CONGESTIVE FAILURE...............Leroy E. Duncan, Jr. 90

RENAL HEMODYNAMIC RESPONSE TO VASOPRESSOR AGENTS IN THE TREATMENT OF SHOCK......................John H. Moyer, George Morris and H. Liston Beasley 96

THE ELIMINATION OF BODY RESONANCE DISTORTION FROM THE DIRECT-BODY BALLISTOCARDIOGRAM....................Michael Tobin, John N. Edson, Robert Dickes, Gerald H. Flamm and Lawrence Deutsch 108

INTERIM REPORT OF THE COMMITTEE ON AUSCULTATORY PHENOMENA OF THE SCIENTIFIC COUNCIL OF THE AMERICAN HEART ASSOCIATION......................114

CLINICAL PROGRESS. THE CLINICAL USE OF DIGITALIS PREPARATIONS (Part one)
Calvin F. Kay 116
CONTENTS OF VOLUME XII

CLINICAL CONFERENCE. A DIAGNOSTIC PROBLEM: NONCYANOTIC HEART DISEASE WITH HEART FAILURE IN A SEVEN YEAR OLD BOY.................E. Grey Dimond 124
ABSTRACTS .............................................................. 132
BOOK REVIEWS .......................................................... 151
AMERICAN HEART ASSOCIATION ...................................... 153

No. 2

EVIDENCE FOR INCREASED SERUM GLUTAMIC OXALACETIC TRANSAMINASE (SGO-T) ACTIVITY FOLLOWING GRADED MYOCARDIAL INFARCTS IN DOGS
Irwin Nydick, Felix Wróblewski and John S. LaDue 161
THE THEORY OF KENT. A HISTOLOGIC STUDY OF THE NORMAL ATRIOVENTRICULAR COMMUNICATIONS OF THE HUMAN HEART......Maurice Lev and Ruth Lerner 176
DISSECTING ANEURYSM PRODUCED BY DIET
William B. Bean and Ignacio V. Ponseti 185
CHOLESTEROL PERICARDITIS. SUCCESSFUL TREATMENT BY PERICARDIOTOMY
Oscar Creech, Jr., W. Morse Hicks, Jr., Harvey B. Snyder and Ethel E. Erickson 193
VISUALIZATION OF THE CORONARY SINUS IN CINEANGIOCARDIOGRAPHY
Frank Campeti, Raymond Gramiak, James S. Watson, George H. Ramsey and Sydney Weinberg 199
ASSOCIATION OF HYPOTENSIVE STATE IN MYOCARDIAL INFARCTION WITH SUBSEQUENT METABOLIC RESPONSES AND MORTALITY IN ELDERLY SUBJECTS
Robert A. Bruce, Henry J. Kouvalski and Gordon G. Bergy 207
CIRCULATORY DYNAMICS IN OSTEITIS DEFORMANS.......J. Lequime and H. Denolin 215
RAUWOLFIA SERPENTINA IN THE TREATMENT OF HIGH BLOOD PRESSURE. A REVIEW OF THE LITERATURE...............Rustom Jal Yakil 220
ATYPICAL TETRALOGY OF FALLOT: A NONCYANOTIC FORM WITH INCREASED LUNG VASCULARITY..............Richard D. Rowe, Peter Vlad and John D. Keith 230
LUMBAR SYMPATHETOMY IN THE TREATMENT OF HYPERTENSIVE ISCHEMIC ULCERS OF THE LEG (MARTORELL'S SYNDROME)..............J. Palou 239
SUBACUTE BACTERIAL ENDOCARDITIS ARISING IN MURAL THROMBI FOLLOWING A MYOCARDIAL INFARCTION: A CASE REPORT....Seymour Joffe and Harold Feil 242
ANGIOGRAPHIC DEMONSTRATION OF OCCLUSIVE AURICULAR THROMBI IN DOGS......John L. Read, Lewis H. Boshier, Felix Ferraru, Samuel Richman and Reno R. Porter 247

OCCLUSIVE AURICULAR THROMBI
John L. Read, Reno R. Porter, Simon Russi and Joseph R. Kriz 250
CHRONIC HEART BLOCK IN DOGS. A METHOD FOR PRODUCING EXPERIMENTAL HEART FAILURE........................T. E. Starzl and R. A. Gaertner 259
THE EFFECT OF HYPERVENTILATION ON VARIOUS ARRHYTHMIAS
D. Schef, M. Goldfarb and R. Bussan 271
MITRAL INSUFFICIENCY: CARDIAC MECHANICS AS STUDIED WITH THE KINETOCARDIOGRAM AND BALLISTOCARDIOGRAM
William T. Tucker, John L. Knowles and E. E. Eddleman, Jr. 278
A STUDY OF THE SPATIAL VECTORCARDIOGRAM IN NORMAL SUBJECTS OVER THE AGE OF FORTY YEARS...............J. A. Abildstow 286
CONTENTS OF VOLUME XII

No. 3

CLINICAL PROGRESS. THE CLINICAL USE OF DIGITALIS PREPARATIONS (Part two)
Calvin F. Kay 291

ABSTRACTS ......................................................... 305

AMERICAN HEART ASSOCIATION ......................................... 318

No. 4

THE HEART MUSCLE AND THE ELECTROCARDIOGRAM IN CORONARY DISEASE. III. A NEW CLASSIFICATION OF VENTRICULAR MYOCARDIAL DAMAGE DERIVED FROM THE CLINICOPATHOLOGIC FINDINGS IN 100 PATIENTS (Part one)
John Sañen, Warner F. Sheldon and Charles C. Wolfarth 321

AN EVALUATION OF THE EFFECT OF CONTINUOUS LONG-TERM ANTICOAGULANT THERAPY ON THE PROGNOSIS OF MYOCARDIAL INFARCTION: A REPORT OF 82 CASES. M. M. Suzman, H. D. Ruskin and B. Goldberg 338

INOSITOL AND MANNOIT HEXANITRATES IN HYPERTENSION MANAGEMENT
Lionel M. Bernstein and A. C. Ivy 353

NEWER DRUGS IN THE TREATMENT OF HYPERTENSION. II. USE OF HEXAMETHONIUM IN COMBINATION WITH HYDRAZINE
Charles L. Rast, Jr. and Edward S. Orgain 361

THE ROLE OF PULMONARY HYPERTENSION AND THROMBOEMBOLISM IN THE PRODUCTION OF PULMONARY ARTERIOSCLEROSIS
Robert M. O'Neal and Wilbur A. Thomas 370

EXERCISE AND CARDiac WORK RESPONSE AT HIGH ALTITUDE
Ernest O. Theilen, Donald E. Gregg and Andres Rotta 383

QS- AND QR-PATTERN IN LEADS V2 AND V4 IN ABSENCE OF MYOCARDIAL INFARCTION: ELECTROCARDIOGRAPHIC AND VECTORCARDIOGRAPHIC STUDY
Borys Surawicz, Robert G. Van Horne, John R. Urbach and Samuel Bellet 397

A NEW QUANTITATIVE BASIS FOR ELECTROCARDIOGRAPHIC THEORY: THE NORMAL QRS COMPLEX
Ernest Frank, Calvin F. Kay, George E. Seiden and Robert A. Keisman 406

A STUDY OF THE SPATIAL VECTORCARDIOGRAM IN SUBJECTS WITH POSTERIOR MYOCARDIAL INFARCTION
G. E. Burch, Leo Horan, J. A. Abildskov and J. A. Cronich 418

VECTORCARDIOGRAPHIC INVESTIGATIONS ON THE AURICLES
Rudolf Wenger, Klemens Hupka and Erwin Wick 426

A STUDY IN FRONTAL PLANE VECTORBALLISTOCARDIOGRAPHY
Gwendolyn L. Morris and John R. Braunstein 432

CLINICAL CONFERENCE. PRESENTATION OF A CASE FOR DIAGNOSIS ......................... 439

CLINICAL PROGRESS. THE NEUROGENIC CONTROL OF THE BLOOD VESSELS
Simon Rodbard and Louis N. Katz 448

ABSTRACTS ......................................................... 456

AMERICAN HEART ASSOCIATION ......................................... 476

PROGRAM AND PROCEEDINGS OF THE NINTH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR THE STUDY OF ARTERIOSCLEROSIS .................................................... 481

No. 5

CARDIOVASCULAR PERFORMANCE IN ATRIAL FLUTTER
Régane M. Harvey, M. Irené Ferrer, Dickinson W. Richards and André Courand 507

ECHINOCOCCUS DISEASE OF THE LEFT VENTRICLE. A CLINICAL, RADILOGIC AND ELECTROCARDIOGRAPHIC STUDY . . . Eduardo Joaquín Canabal, César V. Aguirre, Jorge Dighiero, Joaquín Purcallas, José M. Baldomir and Carlos V. Suzacq 520
## CONTENTS OF VOLUME XII

### The Heart Muscle and the Electrocardiogram in Coronary Disease. III. A New Classification of Ventricular Myocardial Damage Derived from the Clinico-pathologic Findings in 100 Patients (Part Two)

John Sayen, Warner F. Sheldon and Charles C. Wolferth 530

### The Neurogenetic Component in Hypertension... A. E. Doyle and F. H. Smirk

Studies in Intravascular Coagulation. IV. The Effect of Heparin and Dicumarol on Serum-Induced Venous Thrombosis

Stanford Wessler and Leslie E. Morris 553

### Changes in Cardiac Output with Age

Martin Brandfonbrener, Milton Landoune and Nathan W. Shock 557

### The Relation of Age to Certain Measures of Performance of the Heart and the Circulation

Milton Landoune, Martin Brandfonbrener and Nathan W. Shock 567

### Dynamic Comparison of Current Ballistocardiographic Methods. Part I: Artefacts in the Dynamically Simple Ballistocardiographic Methods

Samuel A. Talbot and W. Kirby Harrison, Jr. 577

### The Effects of Nitroglycerine on the Ballistocardiogram of Persons with and without Clinical Evidence of Coronary Heart Disease

Isaac Starr, Elaine Pedersen and Aldo N. Corbascio 588

### The Electrocardiogram in Congenital Heart Disease. With Special Reference to Left Axis Deviation........ A. J. Brink and Catherine A. Neill 604


### Influence of Prostigmine and Acetylcholine on Ventricular Fibrillation Elicited by Focal Cooling........ D. Scherf, R. Bussan, W. C. Gittinger and S. Torin 620

### Electrolyte Changes in Ileal Contents and in Feces during Restriction of Dietary Sodium with and without the Administration of Cation-Exchange Resin.... Henry Field, Jr., Leon Swell, R. E. Dailey, E. C. Trout, Jr. and R. S. Boyd 625

### The Relationship of Sodium Retention and Venous Pressures to Edema Formation..................... Ralph Goldman and Samuel H. Bassett 630

Clinical Progress. Myocardial Metabolism ........................ R. J. Bing 635

### Abstracts ................................................................. 648

### American Heart Association ........................................ 659

Proceedings of the 28th Scientific Sessions of the American Heart Association (Annual Meeting) ................................................................. 607

### No. 5

### The Influence of Rheumatic Fever on Serum Concentrations of the Enzyme, Glutamic Oxalacetate Transaminase

Irwin Nydick, James Tang, Gene H. Stoller,man, Felix Wróblewski and John S. LaDue 795

### Costophrenic Septal Lines in Pulmonary Venous Hypertension

André J. Bruwer, F. Henry Ellis, Jr. and John W. Kirklin 807

### Syndrome of Left Ventricular-Right Atrial Shunt Resulting from High Interventricular Septal Defect Associated with Defective Septal Leaflet of the Tricuspid Valve

Mildred Stahlman, Samuel Kaplan, James A. Helmsworth, Leland C. Clark and H. William Scott, Jr. 813
Cardioaortic Fistula. A Case Diagnosed in Life and Treated Surgically  
J. W. Brown, D. Heath and W. Whitaker 819

The Physiologic and Clinical Similarity between Primary Amyloid of the Heart and Constrictive Pericarditis  
Rolf M. Gunnar, Robert F. Dillon, Richard J. Wallyn and Edward I. Elisberg 827

Further Observations on the Treatment of Superficial Thrombophlebitis with Phenylbutazone (Butazolidin) ...............Irwin D. Stein 833

General Networks for Central Terminals in Electrocardiography and Vectorcardiography  
Nathan Marchand, Stanley A. Briller and Charles E. Kossmann 838

Dynamic Comparison of Current Ballistocardiographic Methods. Part II: Effect of a Platform in Ballistocardiographic Dynamics  
Samuel A. Talbot and W. Kirby Harrison, Jr. 845

The Abnormal Ballistocardiogram in Mitral Stenosis. The Relationship of the Abnormal Waves to Right Ventricular Ejection and to the Mean Pulmonary Artery Pressure ...............C. B. Henderson 858

Three-Plane Ballistocardiography: The Effect of Age on the Longitudinal, Lateral and Dorsalventral Ballistocardiograms ......Harold W. March 869

Pressor Mechanism Induced by Intracranial Compression  
Simon Rodhard and Walter Stone 883

The Effect of Prolonged Corticotropin Therapy for Rheumatic Fever on the Exchangeable Sodium Content and Body Weight  
Jerry K. Aikawa and Marie B. Rhyne 891

Alterations in Exchangeable Sodium Content, “Sodium24 Space” and Body Weight during the Treatment of Congestive Failure  
Jerry K. Aikawa and Reginald H. Fitz 897

Clinical Progress. Cardiovascular Manifestations of Collagen Diseases  
Matthew Taubenhaus, Bernard Eisenstein and Alfred Pick 903

Clinical Conference. A Patient with Circulatory Complications following an Exploratory Celiotomy for Unexplained Jaundice  
Joseph E. Flynn and Frederick R. Bailey 921

Abstracts ................................................................. 927

American Heart Association ........................................... 951

No. 6

De-Epicardialization: A Simple, Effective Surgical Treatment for Angina Pectoris ...............Dwight E. Harken, Harrison Black, James F. Dickson and Hugh E. Wilson, III 955

The Changes in the Intra-Arterial Pressure During Immersion of the Hand in Ice-Cold Water...John O. Godden, Grace M. Roth and Edgar A. Hines, Jr. 963

Reactivity to Pressor Agents in Hypertension  
Austin E. Doyle and Harold Black 974

Mitral Commissurotomy Performed during Anticoagulant Prophylaxis with Dicumarol ...............Ole Storm and Anders Tyhjærg Hansen 981

Cardiovascular Collapse in Acute Poliomyelitis  
J. A. Hildes, A. Schaberg and A. J. W. Aicek, M.D. 986

Pulmonary Stenosis and Ventricular Septal Defect with Arteriovenous Shunts. A Clinical and Hemodynamic Study of Eleven Patients  
John A. Callahan, Robert O. Brandenburg and H. J. C. Swan 994
CONTENTS OF VOLUME XII

STUDIES MADE BY SIMULATING SYSTOLE AT NECROPSY. VII. CLINICAL METHODS FOR
ESTIMATING THE WORK OF THE LEFT VENTRICLE. WITH A NOTE ON THE
DIMINUTION OF HEART WORK AS AGE ADVANCES
Isaac Starr, S. I. Askovitz, W. Feder and A. Schild 1005

DYNAMIC COMPARISON OF CURRENT BALLISTOCARDIOGRAPHIC METHODS. PART III.
DERIVATION OF CARDIOVASCULAR FORCES FROM BODY MOTIONS
Samuel A. Talbot and W. Kirby Harrison, Jr. 1022

MOTION IN CARDIOVASCULAR RADIOGRAPHY
Charles T. Dotter 1034

THE EFFECT OF LARGE INTRAVENOUS DOSES OF SODIUM BORATE ON THE HUMAN
MYOCARDIUM AS REFLECTED IN THE ELECTROCARDIOGRAM
Hadley L. Conn, Jr., Berniece B. Antal and Lee E. Farr 1043

HEMODYNAMIC CHANGES ASSOCIATED WITH FLUID RETENTION INDUCED IN NON-
CARDIAC SUBJECTS BY CORTICOTROPIN (ACTH) AND CORTISONE; COMPARISON
WITH THE HEMODYNAMIC CHANGES OF CONGESTIVE HEART FAILURE
Roy E. Albert, Warren W. Smith and Ludwig W. Eichna 1047

SODIUM POTASSIUM AND MAGNESIUM BALANCE DURING RECOVERY FROM CONGESTIVE
HEART FAILURE DUE TO COR PULMONALE AND OTHER HEART DISASES
Ivan J. Mader, Yoshikazu Morita and Lloyd T. Iseri 1057

TENTATIVE CLASSIFICATION OF ARTERIOPATHIES BY THE COMMITTEE ON NOMEN-
CLATURE OF THE AMERICAN SOCIETY FOR THE STUDY OF ARTERIOSCLEROSIS . . 1065

CLINICAL PROGRESS. AORTIC DISSECTION
Howard B. Burchell 1068

UNUSUAL MANIFESTATIONS OF COARCTATION OF THE AORTA
George C. Griffith, Robert W. Oblath and John C. Jones 1180

ABSTRACTS 1084

BOOK REVIEWS 1109

AMERICAN HEART ASSOCIATION 1111