

Volume 5, Number 6

November/December 1987

CSC

NOV 13 1987

Clinical Science Center Library
250 Highland Ave., Madison, WI 53706

The Journal of Emergency Medicine

PERGAMON PRESS New York • Oxford • Beijing • Frankfurt • São Paulo • Sydney • Tokyo • Toronto

Page 1

Medtronic Exhibit 1462

Roger Barkin, MD
Denver, CO

Clinical Communications/Adult
Michael Tomlanovich, MD
Detroit, MI

Clinical Communications/OB/GYN
Gail V. Anderson, Jr. MD
Atlanta, GA

Selected Topics:

Toxicology
Kenneth Kulig, MD
Denver, CO

Prehospital Care
Peter T. Pons, MD
Denver, CO

ECG Commentary
Ron Walls, MD
Vancouver, Canada

Computers in the Emergency Department
Stephen V. Cantrill, MD
Denver, CO

Techniques and Procedures
George Sternbach, MD
Stanford, CA

Emergency Medicine in Review
Ann Harwood-Nuss, MD
Jacksonville, FL

Emergency Case Records
Michael Brunko, MD
Denver, CO

Medical Classics
George Sternbach, MD
Stanford, CA

Emergency Forum
G. Richard Braen
Boston, MA

Emergency Medicine and the Law
Education
Mary Ann Cooper
Chicago, IL

New Technologies
Alexander Trott, MD
Cincinnati, OH

Humanities and Medicine
Richard M. Ratzan, MD

Book Reviews
Edward J. Otten, MD
Cincinnati, OH

Abstracts
Suchinta Hakim, MD
Chicago, IL

Special Consultant
Ernest E. Moore, MD
Denver, CO

□ **EDITORIAL BOARD**

Tim Allen, MD
Quebec, Canada

Howard Bessen, MD
Torrance, CA

Joseph Clinton, MD
Minneapolis, MN

Robert Dailey, MD
Oakland, CA

Daniel Danzl, MD
Louisville, KY

Jan de Boer, MD, PhD
Warnsveld, The Netherlands

Peter Doris, MD
Chicago, Heights, IL

Peter Fass, MD
Valhalla, NY

Richard Feldman, MD
Chicago, IL

John Gallagher, MD
Bronx, NY

Jerris Hedges, MD
Cincinnati, OH

Kenneth Iseron, MD
Tucson, AZ

Robert C. Jorden, MD
Jackson, MS

Gene Kallsen, MD
Fresno, CA

Alois F. Karlbauer, MD
Austria

Martin S. Kohn, MD
Far Rockaway, NY

John Lyman, MD
Panama City, FL

Robert Margulies, MD
Jacksonville, NC

Vincent Markovchick, MD
Denver, CO

James Matthews, MD
Chicago, IL

Doug Mayeda, MD
Colorado Springs, CO

John W. McGill, MD
Denver, CO

Kendall McNabney, MD
Kansas City, MO

John Moorhead, MD
Portland, OR

Jack Peacock, MD
El Paso, TX

Bruce T. Rowat, MD
Toronto, Ontario, Canada

Ernie Ruiz, MD
Minneapolis, MN

Arthur Sanders, MD
Tucson, AZ

Daniel T. Schelble, MD
Akron, OH

John Schriver, MD
Portland, OR

Jeffrey Schwartz, MD, Capt., MC
Greenley, CO

Steven Silverstein, MD
Newton Lower Falls, MA

Robert D. Slay, MD, Col, MC
San Antonio, TX

T. D. Sosnowski, MD
Edmonton, Alberta, Canada

David Wagner, MD
Philadelphia, PA

Gerry Whelan, MD
Los Angeles, CA

Daniel D. Whitcraft, III, MD
Long Beach, CA

Albert Yee, MD
Milwaukee, WI

Editorial Office: Peter Rosen, MD, Editor-in-Chief: *The Journal of Emergency Medicine*, Denver General Hospital, 777 Bannock Street, Denver, CO 80204-4507, USA.

Publishing, Subscription, and Advertising Offices: Pergamon Journals, Inc, Fairview Park, Elmsford, NY 10523, USA; or Pergamon Journals, Ltd, Headington Hill Hall, Oxford OX3 0BW, England.

Published Bimonthly. Annual institutional subscription rate (1987): US \$110.00; Two-year institutional subscription rate (1987/88): US \$209.00; Professional subscription rate (1987): US \$45.00; Student/Resident/Intern Rate: US \$25.00. Prices are subject to change without notice. Notify eight weeks in advance of address change with a copy of the subscription mailing label. Microform subscriptions: Information available upon request.

Copyright © 1987 Pergamon Journals Ltd

Printed in the USA.

Copyright Notice: It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher, of and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform, or any other reproductions of similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, mechanical, photocopying, recording, or otherwise, without permission in writing from the copyright holder. "Emergency Medicine" has been registered as a trademark by another party and is used by agreement with such other party, the details of which are available by writing to Pergamon Journals, Inc, Fairview Park, Elmsford, NY 10523.

Photocopying information for users in the U.S.A.: The Item-Fee Code for this publication indicates that authorization to photocopy items for internal or personal use is granted by the copyright holder for libraries or other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service provided the stated fee for copying beyond that permitted by Section 107 or 108 of the United States Copyright Law is paid. The appropriate remittance of \$3.00 per copy is paid directly to the Copyright Clearance Center Inc, 27 Congress Street, Salem, MA 01970.

Permission for other use: The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works, or for resale. Specific written permission must be obtained from the publisher for such copying. Please contact the Subsidiary Rights Manager, Publishing Services Dept at either Pergamon Journals Ltd or Pergamon Journals Inc.

The Item-Fee Code for this publication is: 0736-4679/87 \$3.00 + .00

The Journal of Emergency Medicine

Volume 5, Number 6

CSC

1987

CONTENTS

NOV 13 1987

Original Contributions

George T. Rodeheaver
Michael D. Spengler
Richard F. Edlich

451 Performance of New Wound Closure Tapes

David Schillinger

463 Nifedipine in Hypertensive Emergencies: A Prospective Study

Clinical Communications

Joseph C. Dell'Aria

475 Acute Pseudotumor of the Orbit

Brian O. Stephens
Gail V. Anderson, Jr

481 Simultaneous Bilateral Quadriceps Tendon Rupture: A Case Report and Subject Review

Paul S. Auerbach
J. Taylor Hays

487 Erythema Nodosum Following a Jellyfish Sting

Eric M. Koscove

493 Taser® Dart Ingestion

Selected Topics: Toxicology

Kurt R. Duffens
Martin J. Smilkstein
Howard A. Bessen
Barry H. Rumack

499 Falsely Elevated Salicylate Levels Due to Diflunisal Overdose

Selected Topics: Prehospital Care

John L. Zautcke
Ron W. Lee
Nancie A. Ethington

505 Paramedic Skill Decay

James E. Pointer
Michael A. Osur

513 EMS Quality Assurance: A Computerized Incident Reporting System

Selected Topics: ECG Commentary

Steven R. Lowenstein
Alden H. Harken

519 A Wide, Complex Look at Cardiac Dysrhythmias

(Continued on next page)

INDEXED IN Safety Science Abstracts, Emergency Medical Abstracts, BIOSIS Database, Index Medicus, MEDLINE, Excerpta Medica, CABS, Internat'l Bibl Period Lit, Internat'l Book Reviews

ISSN 0736-4679
(716)

Page 3

Medtronic Exhibit 1462

Timothy C. Evans	549	Airplane Propellers and Cynicism
		<i>Editorials</i>
George Sternbach	551	"Tasering" the Literature
D. Demetrios Zukin	553	New Wound Closure Tapes
Mary Ann Cooper	555	Cost Ignorance: Not Cost Containment
	557	Letters to the Editor
	561	Letters of Reply
		<i>Education</i>
Raymond P. Ten Eyck Joshua S. Vayer	563	Airway Management: A New Look at Old Models
		<i>Administration of Emergency Medicine</i>
John L. Lyman John B. McCabe	567	Emergency Department Care: Cost Awareness by Health Care Providers
	573	Abstracts
		<i>Book Review</i>
Patrick Fennell Susan Wason	581	<i>Handbook of Common Poisonings in Children</i> , 2nd Ed by American Academy of Pediatrics
	583	Calendar of Events
	585	Classifieds
	587	List of Reviewers
	589	Volume 5 Index
	607	Instructions for Contributors

This issue of *JEM* was edited by Dr George Sternbach, Associate Editor.

J.- F.- B. CHARRIÈRE: THE MAN BEHIND THE "FRENCH" GAUGE

Kenneth V. Iserson, MD, FACEP

Section of Emergency Medicine, University of Arizona College of Medicine, Tucson, AZ 85724
Reprint address: Kenneth V. Iserson, MD, FACEP, Section of Emergency Medicine,
University of Arizona College of Medicine, Tucson, AZ 85724

□ **Abstract**—Joseph-Frédéric-Benoît Charrière, a 19th century Parisian maker of surgical instruments, has by virtue of his ingenuity and advanced thinking, continued to have his presence felt in medicine throughout the 20th century. His most significant accomplishment was the development of a uniform, standard gauge specifically designed for use in medical equipment such as catheters and probes. Unlike the gauge system adopted by the British for measurement of needles and intravenous catheters, Charrière's system has uniform increments between gauge sizes (1/3 of a millimeter), is easily calculated in terms of its metric equivalent, and has no arbitrary upper end point. Today, in the United States, this system is commonly referred to as French (Fr) sizing. In addition to the development of the French gauge, Charrière made significant advances in ether administration, urologic, and other surgical instruments, and the development of the modern syringe.

□ **Keywords**—Charrière; French gauge; medical equipment; surgical equipment; ether anesthesia; urology

In the first half of the 19th century, the British, in the throes of the industrial revolution, were still trying to adapt an arbitrary sizing system (the Stub's Gauge which was adapted to the manufacture of needles and catheters only in the 20th century) in order to standardize their manu-

facture of metal wires.¹ Meanwhile, the French had developed a uniform, standard gauge based on the metric system. This gauge was specifically designed for use in medical equipment, such as catheters and probes. The famous Parisian maker of surgical instruments, Joseph-Frédéric-Benoît Charrière (Figure 1), developed this measurement system. Today, in the United States, this system is commonly referred to as French (Fr) sizing.

Charrière was born in 1803 in Cerniat in Gruyere, Fribourg Canton, Switzerland. At the age of 13, he was sent to Paris and apprenticed as a cutler (a maker of cutting instruments, such as knives). Four years later he became both a master cutler and the owner of his own business after the untimely and mysterious drowning of his former teacher, whose business he acquired. Charrière quickly developed a reputation among Paris surgeons as a skilled and innovative maker of surgical instruments. Part of this reputation stemmed from an incident that occurred shortly after he opened his business.

Charrière was hammering the metal and sharpening the lancets and knives, when into his boutique flew a young man. By his white apron, his fine featured and intelligent face, and by his distinguished build he could recog-

Medical Classics — is an ongoing feature of *JEM*, focusing on "classic" contributions to emergency medicine. This section is routinely authored by *George Sternbach, MD* Stanford University Medical Center.

RECEIVED: 23 March 1987; ACCEPTED: 16 April 1987

0736-4679/87 \$3.00 + .00

545

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.