



Oh! that we two were Maying
Down the stream of the soft spring breeze.
—Charles Kingsley.

BULLETIN

of the
**Mahoning
County
Medical
Society**

Vol. XIV No. 5
May 1944

*For the infant
deprived of
mother's milk*



SIMILAC

SIMILAR TO BREAST MILK

A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butterfat is removed and to which has been added lactose, olive oil, coconut oil, corn oil, and fish liver oil concentrate.



Similac provides breast milk proportions of fat, protein, carbohydrate and minerals, in forms that are physically and metabolically suited to the infant's requirements. Similac dependably nourishes — *from birth until weaning.*

One level tablespoon of Similac powder added to two ounces of water makes two fluid ounces of Similac. This is the normal mixture and the caloric value is approximately 20 calories per fluid ounce.

M & R DIETETIC LABORATORIES, INC. • COLUMBUS 16, O.

THE MAHONING COUNTY MEDICAL SOCIETY

OFFICERS AND COUNCIL

ELMER H. NAGEL, M. D., <i>President</i> 1705 Market St.	CLAUDE B. NORRIS, M. D., <i>Editor</i> 244 Lincoln Ave.	
WM. H. BUNN, M. D., <i>Pres.-Elect</i> Home Sav. & Loan Bldg.	O. J. WALKER, M. D. R. B. POLING, M. D. J. P. HARVEY, M. D.	} <i>Censors</i>
GEO. M. MCKELVEY, M. D., <i>Secretary</i> 101 Lincoln Ave.	JOHN N. McCANN, M. D. WM. M. SKIPP, M. D. EDW. J. REILLY, M. D.	} <i>Delegates</i>
SAUL TAMARKIN, M. D., <i>Treasurer</i> 1044 Belmont Ave.	JAMES B. BIRCH, M. D. P. J. McOWEN, M. D. E. J. WENAAS, M. D.	} <i>All. Delegates</i>

MARY-B. HERALD, *Executive Secretary*, 1204 Central Tower

BULLETIN COMMITTEE

CLAUDE B. NORRIS, M. D., *Editor*

ASSOCIATE EDITORS

J. P. HARVEY, M. D.	EDW. J. REILLY, M. D.
J. N. McCANN, M. D.	WM. M. SKIPP, M. D.
R. B. POLING, M. D.	O. J. WALKER, M. D.

Published monthly at 787 Wick Avenue, Youngstown, Ohio Annual Subscription \$2.00

Vol. XIV—No. 5	CONTENTS	May, 1944
PRESIDENT'S PAGE	- - - - -	126
EDITORIALS	- - - - -	127-145
VENOGRAPHY OF THE LOWER EXTREMITIES	- - - - -	129-136
NEWS	- - - - -	143-145
SECRETARY'S REPORT	- - - - -	145
FROM OUR DOCTORS IN THE SERVICE	- - - - -	147
A PERTINENT TALK	- - - - -	147

ADVERTISERS' LIST

Patronize them—they make the "Bulletin" possible

Beil-Rempes Drugs, Inc.123	Mead Johnson Co.Cover
Blair's123	Medical-Dental Bureau, Inc.151
C. B. Cassaday146	Mercer Sanitarium142
Central Square Garage146	Merrell, Wm. S. Co.150
Ciba Pharmaceutical Prod., Inc.....Cover	Overlook Sanitarium144
Cross Drug Stores142	Renner's Brewing Co.144
Endo Products, Inc.144	Scott Co.122
Fair Oaks Villa152	Similac'Cover
Helen M. Foster146	Strouss-Hirshberg's123
Isaly's128	Thornton's125
Lyon's Physician Supply Co.122-124	H. H. Truedley & Co.146
Lester's146	White's Drug Stores152
Massengill, The S. E. Co.148	Yo. Sanitary Milk124
McKelvey's125	Zemmer Co.125

VAGABOND PRINCE

Distinction in Fine Lightweight Felt

Everything about this famous member of the "Vagabond" family, says "special." The mellow felt, the grace of line, the refinements that speak of master hat-making. It's a hat for men who want something different, and finer. **\$8.50.**

Other Knox Lightweights \$6.50 to \$20

The Scott Company

32 North Phelps Street



PATRONIZE OUR ADVERTISERS AND MENTION THE BULLETIN



HAVE YOU A

Ruptured

PATIENT?

Through years of experience our factory trained fitters, Mr. H. F. Schafer and Miss Warino, assure your patients the correct appliance and comfort needed for their individual case.

PRIVATE FITTING ROOMS

WE FIT

TRUSSES, ELASTIC HOSE, BRACES, PTOSIS, SACROILIAC, MATERNITY, KIDNEY, AND POSTOPERATIVE BELTS

LYONS PHYSICIAN SUPPLY COMPANY

26 Fifth Avenue

YOUNGSTOWN, OHIO

Phone 4-0131

Beil-Rempes Drugs, Inc.

Youngstown Owned and Operated
31 Central Square
Tod House

Our whole attention is devoted to serving the medical profession and filling out prescriptions. Hundreds of physicians and families feel an added confidence when they have a prescription filled at Beil & Rempes.

They know that this assures the best in quality and the utmost in care.

**We Invite You to Visit Our
Prescription Department**

SAVE 15%**On All****Cash and Carry Items**

Blair Stores are conveniently located at—Glenwood and Princeton, 4224 Market Street, 8 N. Phelps Street, 27 S. Phelps Street, Elm at Tod Lane, Belmont at Foster and 34 N. Main Street, Hubbard, Ohio.



Responsible Cleaners and Furriers



PATRONIZE OUR ADVERTISERS AND MENTION THE BULLETIN



Let Ruth Ames, Personal Shopper, Choose Your Mother's Day Gift!

There's little time left . . . but if you haven't been able to attend to this important matter, just dial 3-5181 and ask for Ruth Ames! She knows how busy you are . . . and she'll be glad to help! (Mother's Day is May 14th, you know!)

STROUSS-HIRSHBERG'S

Known for Dependability for Over 69 Years

WE ARE PROUD OF THE
"SEALTEST" NAME!

Sealtest
DAIRY PRODUCTS

Sealtest
ICE CREAM



TELEPHONE
32161



We've always been mighty proud of the quality, purity, and delicious appeal of our Dairy Products and Ice Cream and in being a member-company of the famed Sealtest System of Laboratory Protection. The scores of modern laboratories in the system; the many food scientists and experts—these add their weight to our determination to continue giving you the fine dairy products and ice cream you insist upon.

THE YOUNGSTOWN SANITARY MILK CO.



PATRONIZE OUR ADVERTISERS AND MENTION THE BULLETIN



NOW AVAILABLE

Doctor—

DO YOU REALIZE THAT THE
LEPEL SHORTWAVE
MACHINES

OFFER THESE FEATURES:

- Foolproof against Tube Overload.
- Airspaced and Condenser Plate Technics.
- Cutting and Coagulating Currents with Excellent Finesse of Control.
- Direct Contact Metal Electrode Application without Danger of Sparking or Edge Burns.
- Ultra Violet lamps for use with any short wave.

Let us demonstrate how valuable an adjunct a
LepeL Short Wave Machine will be in your office.

LYONS PHYSICIAN SUPPLY COMPANY
MANUFACTURING PHARMACISTS

26 Fifth Avenue

Youngstown, Ohio

IN WAR OR PEACE

There Is No Substitute for QUALITY

That's why most Youngstowners insist upon genuine **Thorclening**, the scientific method of keeping your garments looking new and fresh.

PHONE 40155

GIRARD 46-56210 **THORNTON** NILES 46-56210
LAUNDRY & DRY CLEANING CO.

Hand-tailored, Pure Wool

Gabardine Suits

\$45.00

If this fabric doesn't look like twice the price to you, we'll eat every well-put-together yard of it! Mellow tans, smooth-as-cocoa browns, quiet greys. In Kelbrook's well-tailored fashion. Lightweight spring-through-summer models, featuring sizes from 35 to 42.

(Men's Store—Street Floor)

M c K E L V E Y ' S

**SOLUTION
 ISO-PHEDRIZEM**

Ephedrine Sulfate 1%
 Chlorobutanol (Chlosoform Derivative) 1/2%
 Sodium Chloride q.s. to make an Isotonic Aqueous Solution

An Isotonic Solution for the treatment of congested nasal passages. Supplied in 1 pint bottles, also 1 ounce and 1/2 ounce dropping bottles. Literature and prices on request.

THE ZEMMER COMPANY

Chemists to the Medical Profession

Oakland Station

Pittsburgh (13), Pa.

PRESIDENT'S PAGE

The Ohio State Medical Convention of 1943 was very curt and streamlined. In marked contrast was the 98th annual meeting held at the Neil House in Columbus, May 2-3-4, 1944.

On entering the convention hall, you were at once struck by the fanfare and display of the usual convention exhibits. Retailers vied with each other in the display and presentation of their wares. More than 1500 doctors were in attendance. Old acquaintances were renewed and new ones made. A feeling of good fellowship prevailed. Many of our Mahoning County boys journeyed there for the occasion. When there was a lecturer, politician or what have you, needed, a Mahoning County man was on hand to meet the demand. They did honor to themselves and we should be justly proud of them.

While the 1943 convention consisted mainly of presentations of war programs, the trend of sentiment of the 1944 convention was toward promoting good will amongst the Allied Nations and providing adequate care for our boys in the armed service.

The month of April was designated by the President of the United States and also by the governors of several states as cancer month. The purpose of the proclamation primarily is to educate the people to be mindful of the fact that cancer is a killer, ranking only second to any other disease and that cancer to a degree can be prevented and can be cured in a vast number of cases if diagnosed early. It was with this idea in mind that our cancer committee, under the specific direction of Dr. W. D. Collier, united their efforts with local organizations in an attempt to acquaint the masses with the fact that each and everyone are potential cancer patients and that periodic health examinations and early diagnosis are of great importance in the detection and treatment of cancer. The groundwork has been done but future results can only be obtained by continued diligent work not only by the Doctors, but also by the lay groups interested in this field of work.

ELMER H. NAGEL, M. D.,

President.

BULLETIN *of the* Mahoning County Medical Society

M A Y

1 9 4 4

Editorials---

Postgraduate Day!

It is the usual thing for people to say, "This is a fine meeting, etc., etc.," just to be polite or to reassure their hosts or perhaps to help our own morale, if we ourselves say it. But as to our 16th P. G. Day, we know everybody said it and everybody meant it, too.

It was a fine meeting, the attendance was simply astonishingly large, and the program was superb.

All four speakers have promised to prepare their papers for the Bulletin. Dr. Baker's appears in this issue. The others will follow as fast as possible after we receive them. You will be proud this month, to realize, even more fully than when he delivered it, what a fine contribution our own Dr. Baker made to the success of that day.

*

Now In May

The advance continues with a discussion of "Some Present and Post-war Hospital Problems."

The speaker, Dr. M. F. Steele, Superintendent of Christ Hospital, Cincinnati, will give us a valuable discussion. Since all of us are interested vitally in hospitals, and will almost surely be increasingly so as the casualties, physical and mental, pile up, we shall not wish to miss so pertinent a discussion.

*

The Industrial Commission

It seems that the State Industrial Commission is about to "consider considering" a long-needed correction of their system of paying claims for medical services.

For years dermatologists have literally "groaned" under what seemed to them to be gross unfairness as to

fees allowed dermatologists. Now, other groups are howling, too. Something seems a-brewing.

A few of several counts in the indictment are: (a) The smallness of the fee, if allowed at all; (b) arbitrary and stultifying rules; such as Rule 7, which requires the doctor to request "permission" to do certain things; (c) then delaying to act upon such requests until the patient has long since recovered, or failing entirely to act; (d) the use of ambiguous forms for reports; (e) failure for long periods to allow or disallow claims; (f) and then after the claim has been allowed, in whole or in part, further delay in actually paying the allowed claim; (g) refusal to pay claims for cases, when found, by the doctor, non-industrial (although the industry profited by the doctor's service). The "out" in this is that a provision of the law prohibits the commission from paying a medical fee for any non-industrial case. This "breeds" dishonesty. A simple explanation by all of us to our own senators and representatives will likely secure their co-operation.

Those rendering medical services, including the various specialist groups, are soon to be heard upon these matters. Clearly, it is important that all concerned should "give no unproportioned thought his act."

No group should seek special benefits. If dermatologists, or any others seek only their own advantage, some other group will surely demand equitable adjustment. The schedules should be flexible. Good sense demands serious consideration of the opinions of everyone. It would be

(Continued on Page 145)



From Freezers to Packages Untouched by Human Hands

In the manufacturing of Isaly's delicious Ice Cream, as in the processing of all other Isaly dairy food products, the greatest care is exercised in the maintenance of high standards of sanitation. The accompanying illustration shows three flavors of ice cream from a like number of modern, continuous freezers flowing directly into brick packages which are immediately closed and rushed to frigid hardening rooms. At no time during this operation do human hands touch the product before it reaches your table.

ISALY'S

"Ends the Quest for the Best"

VENOGRAPHY OF THE LOWER EXTREMITIES

By E. C. BAKER, M. D., Youngstown Hospital Association, Youngstown, Ohio

In many branches of medicine the roentgen-ray has added to medical knowledge. Frequently, this addition has consisted of making exact observations which have greatly increased the accuracy of diagnosis. A surgeon, with accurate localization of venous pathology, is able to work with success. Venography has given us such accurate information.

Investigation of a new field such as disease of veins involves proper information about the anatomy and the physiology of the venous system. Surprisingly enough, the information available at the time this work was started was incomplete and very inaccurate as measured by the information obtained from these studies.

An outline of the technique by which our observations were made seems in order. 20 cc. of diodrast is injected by means of venipuncture into any accessible vein below the ankle. The exact position of this vein does not seem to have any effect on the resultant films. The injection is made slowly through a very fine needle over a period of several minutes. During this time, serial film studies are made of the region of the ankle upward to and including the pelvis. Exposures are made in pairs. Pairs overlap progressing upward during the period of the examination. Not infrequently, a fourth pair of films is made which include the upper leg and the region of the knee.

Because the anatomical information which we have obtained of the venous structures of the leg and thigh do not conform strictly to the usual anatomical descriptions, it seems well to review briefly the anatomy of the venous structures in this area. This, must of necessity, be a composite picture obtained from numerous examinations.

It seems easier to describe the venous trunks from above downward.

The external iliac vein comes out of the pelvis into the upper thigh and divides the femoral fossa into the internal saphenous and the femoral veins. The internal saphenous proceeds inward and downward along the inner portion of the thigh in the superficial tissues and can frequently be demonstrated as an intact vein in the region of the ankle before it breaks up into the plexus of veins. The femoral vein follows the course of the femoral artery. It may, however, be divided into two, three, or occasionally four parts. It winds around the femur until in the lower portion of the thigh it is seen in the posterior part of the leg behind the femur. In the popliteal fossa, this becomes the popliteal vein. This vein breaks up at varying positions in the popliteal fossa or in the upper portion of the leg into the deep veins of the leg which are usually three in number. These deep veins of the leg can be traced as definite veins to the region of the ankle or sometimes slightly below. The internal saphenous and the deep veins of the leg constitute the main physiological collecting vessels for the blood of the leg.

Superficially, a wide-spread venous plexus is usually demonstrated located in the lateral, internal, and posterior portions of the leg. This plexus communicates with the internal saphenous and has numerous branches which extend inward to the region of the deep vessels and connect with the deep vessels. The deep veins of the leg lie close to the interosseous space between the tibia and fibula. Except in pathological material, it is unusual to demonstrate any veins in the anterior portion of the leg. The vein called the external saphenous has, in our experience, been simply part of the superficial plexus and can not usually be demonstrated as a single vein.

Again, this vein or plexus of veins over the external portion of the leg usually empty into the internal saphenous by means of superficial veins flowing posterior, low, or in the region of the knee. There are frequently numerous connecting veins between the internal saphenous and the deep veins of leg, knee, and thigh. From the physiological standpoint, the internal saphenous collects the greatest portion of the dye which goes upward through the superficial vessels of the leg. The remainder of the dye of the superficial vessels and some of the dye coming into the deep veins in the region of the foot goes upward in the deep veins of the leg and on into the popliteal and femoral.

Blood flow in the foot and leg and in the veins around the knee is much slower in normal and pathological material than is the blood flow in the thigh or in the upper extremity. The blood flow in the upper extremity moves very rapidly from the hand upward through the forearm and arm and on into the shoulder area. The blood flow in the upper extremity is so rapid that unless films are made while the injection of the dye is going on, visualization of the venous tree will not be obtained. This is usually true of the upper thigh and pelvis. As a rule, the visualization of the venous structures in this area has to be obtained during the injection of the dye.

By taking films at varying time intervals and keeping accurate track of the time elapsed from the start of the injection and the amount of dye injected, a large number of physiological experiments will gradually give enough information so that certain generalizations can be made. The dye spreads in fifteen to thirty seconds through the superficial plexus of the foot and on into the region of the ankle and partly up the leg. In the normal case, part of the dye will spread into the superficial plexus of the lower portion of the leg, some of

this dye entering the internal saphenous. The remainder of the dye enters the deep vessels of the leg close to or shortly above the ankle. The dye in the deep veins of the leg and in the internal saphenous proceed upward at approximately the same rate so that proper visualization of the veins in the region of the knee can be obtained in 45 seconds to a minute and a half. It has been found from longer experience that the latter time is better than the shorter time. The dye in the superficial plexus of the leg proceeds upward somewhat more slowly than the dye in the deep veins of the leg or in the internal saphenous.

Immediately above the knee, the dye gathers entirely in the normal case into the internal saphenous and into the femoral vein. From this point upward, the progress of the dye is much more rapid. The dye is also becoming diluted by the addition of blood from the thigh and from portions of the leg which are not completely visualized. At the proper time interval, which usually means from about a minute and a half to three minutes, the veins in the upper thigh, however, are usually visualized, including the external iliac vein.

(From this point to the end of his paper Dr. Baker showed 25 slides. These, of course, could not be included here. But the reader will find the discussion, even without the slides, to be instructive and interesting.—Editor.)

Slide 1: In this particular case, the dye is proceeding upward through the leg in the superficial plexus. In the region of the calf muscles, the superficial plexus shows partial occlusion. This is due to comparatively recent injury in this area. The internal saphenous is seen as a separate trunk from the region of the knee upward. The venous plexus of the calf empties into the popliteal in the upper portion of the knee region and a large amount of the dye can

be seen going upward through the femoral vein. The femoral vein is bifid. The remainder of the dye is going upward through the internal saphenous to the region of the femoral fossa. A connecting vein between the mid-portion of the internal saphenous and the femoral vein can be seen in the mid-thigh.

We have here an illustration, also, of a rather common happening in venous structures. Note the small bud or connecting vein in the internal saphenous somewhat above the knee joint and on the final film coming out from that bud there is retrograde extension of the dye.

Slide 2: This film made after the usual series of three were taken shows the extension of this dye through two normal valves. As can be seen from the previous slide, there is no block of the venous system above this point. This is a not uncommon finding. Certainly, the valves in the lower extremity are of relative importance only and do not absolutely block the flow of blood in either direction. The number of valves in the venous system of the leg is extremely variable.

This brings up the way in which nature safeguards the leg and apparently the rest of the venous system of the body in case of block of any portion of it. We have had numerous instances of localized block in which the pathways around the block could be demonstrated. The superficial plexus acts as a network and connects with the deep veins. The deep veins in turn connect with the superficial plexus so that if the venous system is blocked in any particular point, the dye and the blood stream immediately ducks around this point and comes outward or inward, whichever is necessary. It may even flow backward until it finds a pathway around the point of obstruction and then flows on upward.

Slide 3: As soon as it has reached the area above the block, the dye will return to the main physiological

pathways in the passage of the blood. At this point, we see evidence of a rather irregular superficial venous plexus with a very large dilated vessel extending inward to the region of the deep veins. This is not continuous upward, however.

Slide 4: Film made of the thigh shows the dye to be returning upward through the internal saphenous and immediately above the area of the block, the dye flows from the internal saphenous into the femoral. The femoral shows good visualization at this point. There is a very faint amount of dye getting upward through another superficial vessel and visualizing the femoral slightly below the main area where most of the dye is returning to the femoral.

Slide 5: Another case in which the dye was blocked in the deep vessels close to the knee. This is a film made of the mid and lower portions of the thigh. The dye can be seen coming past the knee in the superficial vessels and returning to the femoral above the block by means of numerous connecting vessels.

As we have already shown you, we have seen retrograde extension of the dye through normal valves and frequently, in pathological material, we have seen retrograde extension of the dye for some inches.

Slide 6: This next slide shows what may happen after a long period of block. The dye is going up entirely through a tortuous, dilated vein in the superficial plexus to the region of the knee. At this point, it the internal saphenous, and one of veins going upward in the region of the internal saphenous, and one of the veins coming inward toward the region of the normal pathway of the femoral.

Slide 7: A slide showing somewhat better the upper portion of the thigh of this particular case, shows the dye going upward through a very irregular and tortuous system of veins, the upper portion of which lies in the region of the femoral vein.

This has the appearance which we believe to be associated with recanalization after a thrombosis of a deep vein. The vein no longer retains its normal contour, it is somewhat tortuous and irregular, and connects with a number of small veins which bring the dye inward from the superficial circulation.

Slide 8: One of the surprising results of these investigations has been the number of ways in which blood can return to the body from the upper thigh. One classical way which is well known is illustrated here. The dye comes upward through the internal saphenous. The deep circulation is not demonstrated. The dye comes out of the internal saphenous in the region of the femoral and below into the pudendal vessels and spreads through the pudendal vessels, and from there upward onto the abdominal wall. This, of course, is easily observed clinically. In this particular case, there was a history of a milk leg some forty years before. All of the dye, then, from this portion of the leg was returning through the pudendal veins and thence into the abdominal wall. These varicosities were the actual venous return of most of this leg and thigh.

Slide 9: In this case, the dye is coming up in the internal saphenous to the region of the femoral fossa. Again, the deep circulation is blocked. The dye comes outward into the pudendal circulation, crosses into the pudendal circulation of the other side, reaches the femoral fossa of the opposite side and goes up in the opposite iliac.

We have seen three other types of venous return in this area. In a case of very recent thrombosis of the femoral vein in the upper portion of the thigh, the dye was spreading outward from the internal saphenous and collateral circulation into numerous superficial, small vessels. These extended backward into the posterior portion of the thigh and were lost in the posterior portion of the thigh.

The dye apparently returned through the buttock and into the body through the veins of the buttock. Again, we have seen the dye come out of the internal saphenous into the pudendal circulation in the region of the femoral fossa and extend backward into the perineal vessels entering the pelvis through the perineum in the posterior portion. This dye collects, then, into a rather deep vein which lies close to the sacrum in its lateral portion and is a vein of fairly good caliber. This extends laterally into the region of the iliac vein and empties into the iliac vein fairly high up in the pelvis. This particular type of return has been seen on a number of occasions.

This, as I understand it, also explains why it is possible to section the external iliac and possible even higher than the external iliac without having tremendous edema of the lower extremity. The dye returns then through the pudendal circulation into the perineal system and then on upward into the pelvis, finally getting into the iliac high up in the pelvis.

Again, we have seen the dye come out of the internal saphenous in cases where the femoral vein is blocked and extend upward and laterally around into the region of the buttock by means of a fairly large vein. This vein probably follows the artery which extends from the femoral artery in this area upward and backward. The vein was lost in the lateral portion of the buttock, apparently extending backward into the posterior portion.

One other point should be mentioned. As you can see from the films already shown, the dye tends to collect whenever possible in the deeper structures and in the internal saphenous. It flows normally upward and inward and collects into the larger vessels which carry the bulk of the blood flow further up the leg and thigh. This is extremely important in considering certain

pathological conditions which will be shown later.

Attempting to classify the different types of block which can be demonstrated roentgenologically, a series of 100 consecutive cases were analyzed. Roughly, these fall into two groups. Approximately half of these showed evidence of block of the deep circulation and most of the other half showed block of the superficial circulation. There are, of course, mixed types which show both conditions.

Slide 10: In this particular slide, the dye is going up through deep and superficial circulation to mid-leg. At this point, the superficial circulation is abruptly blocked and the dye comes inward entirely to the deep circulation and goes up the upper half of the leg to the popliteal fossa and on up to the femoral fossa through the deep circulation.

Slide 11: A larger film made of the leg in this area shows a very fine network of veins to about mid-leg at which point the superficial circulation is abruptly blocked and the dye turns inward to the deep circulation. This block is largely in the external portion of the leg. This serves to illustrate one of four classifications, acute, superficial block. The superficial structures are fine. The network of veins is essentially normal up to the point where the obstruction occurs.

Slide 12: In this case, we show a sub-acute block of the superficial circulation. The dye goes upward through superficial and deep circulation to about mid-leg. At this point, the dye is abruptly blocked and turns inward to the deep circulation.

Slide 13: A larger slide of this same case shows somewhat better the sub-acute block of the upper leg.

In this case, the superficial veins are somewhat more tortuous. They are not as straight. The caliber is somewhat larger and at the point of block, there is distinct dilation of the veins. This represents slightly

older pathology in the superficial circulation than seen on the previous films.

Slide 14: Here we see the dye going up through a tortuous and irregular superficial circulation to the region of the knee. At this point, most of the dye comes inward and enters the popliteal circulation, going up through the popliteal and femoral vein to the femoral fossa. A small amount of dye extends upward through the internal saphenous. This represents a block of the deep circulation of the leg with the deep circulation intact from the knee upward. The tortuosity and slight increase in caliber of the veins of the leg suggest a sub-acute pathology involving the superficial plexus of the leg.

Slide 15: This, again, represents a chronic block of the deep circulation of the leg. The dye is going up through a very dilated, irregular, superficial system in the leg to the region of the knee at which point most of the dye comes inward to the popliteal vein and then upward through the femoral vein. A small amount of dye goes upward through the internal saphenous.

Slide 16: A larger slide of the veins of the leg shows this tortuosity and irregularity of the venous plexus of the leg somewhat better. There is one point where evidence of a thrombotic process is demonstrated slightly below the middle of the leg. There is, also, slight recanalization of the small area in the superficial circulation which shows evidence of thrombosis.

At no time in acute or chronic pathology of the deep circulation have we failed to discover evidence of pathology in the superficial circulation. This fits exactly with the theories and the known pathological facts in regard to venous thrombosis. The thrombus apparently starts from some small trauma or injury in the superficial veins. It extends rapidly or slowly inward until a portion of

(Continued on Page 135)

May Meeting

Speaker:

MERRILL FESTUS STEELE, M. D.

Subject:

**"DISCUSSION OF SOME PRESENT AND POST
WAR HOSPITAL PROBLEMS"**

Superintendent, The Christ Hospital, Cincinnati, Ohio

Education—DePauw University, Indiana University, B. S., 1918; School of Medicine, M.D., 1920; M.D. Cum Laude, 1921.

Positions—Intern, Methodist Hospital, Indianapolis, Ind. Supt. and Head of the Dept. of Roentgenology, Methodist Hospital, Fort Wayne, Ind., 1921-1933. Supt., Grant Hospital, Columbus, O., 1933-1939. Supt. The Christ Hospital, 1939 to date.

Organizations—American College of Hospital Administrators, Charter Fellow, 1934. Member, Local Credentials Committee for Region No. 7.

American Hospital Association; Pharmacy Committee, 1937. Indiana Hospital Association; Trustee; President, 1926-27. Ohio Hospital Association; Trustee; President, 1935; State Relations Committee, Chairman. Cincinnati Hospital Council; President, 1943. Rotarian; member of Torch Club, member of American Legion. Member, Board of Directors, Cincinnati Community Chest.

Member of American Medical Association, Ohio State Medical Society. Cincinnati Academy of Medicine. Sigma Nu Fraternity. Phi Chi Medical Fraternity.

Has written a number of articles published in "Hospitals" and "Modern Hospital."

TUESDAY, MAY 16th, 1944

Youngstown Club—8:30 P. M.

Venography of the Lower Extremities

(Continued from Page 133)

the deep circulation is involved. The thrombus then extends upward through the deep circulation in the femoral vein or the internal saphenous until it involves the iliac. Usually, when post-mortems are done, only the abdomen is opened. The veins of the leg are not dissected and the thrombus appears to come from the iliac vein. Articles in the European literature where the leg veins have been dissected show that the pathology in most cases of fatal thrombosis starts in the leg veins.

Slide 17: Another case illustrating a deep block of the leg. The dye is going up through superficial circulation to the region of the knee. At this point, the dye comes inward to the femoral vein and part of the dye is going upward through the internal saphenous. On the third film, it will be noted that the femoral vein is in two separate parts which combine shortly before reaching the femoral fossa.

Slide 18: A larger film of the knee region, shows the dye coming inward through the communicating veins into the region of the popliteal vein in the area of the knee. The internal saphenous is well demonstrated. Somewhat below the knee in the interosseous space between the tibia and fibula can be demonstrated short, inter-connecting veins which end in the tissues. This is a frequent finding in chronic pathology. These short lengths of veins extend out from the deep or extend inward from the superficial veins and end abruptly in the tissues.

Slide 19: In this slide we see the dye extending upward through the internal saphenous to about the lower portion of the thigh. At this point, a portion of the dye extends outward into collateral circulation which again comes into the internal saphenous higher up in the thigh, all of

the dye returning through the internal saphenous. No evidence of deep circulation is demonstrated. The superficial plexus in the leg is only partially seen. This represents a block of the deep circulation in the thigh and leg.

Slide 20: This next slide shows the typical appearance of a block of the deep circulation of long-standing. The dye goes into a dilated, tortuous, internal saphenous. Several short connecting veins are seen which end blindly in the tissues. There is, however, some visualization of the femoral vein in the upper portion of the thigh, the dye returning somewhat from the internal saphenous to the femoral vein and there is evidence of retrograde filling of the femoral vein in the third slide from the upper portion of the vein.

Slide 21: Here, again, is the typical appearance of a chronic, deep block of the leg and thigh. The dye is going up through a dilated, somewhat tortuous internal saphenous with short connecting inter-communicating veins which end blindly in the tissues. The dye can be seen in the internal saphenous up to the femoral fossa. The vein is of large caliber. This particular type of case is an open temptation to any surgeon and yet this particular vein is the one that is carrying the bulk of the venous return from this leg and thigh. It is this particular type of case that frequently gets surgeons into trouble. The clinical tests may be normal in this type and yet surgery or occlusive measures used on a vein of this caliber which is carrying the bulk of the blood return will, of course, create much more damage and an acutely swollen leg.

Now, I wish to show you briefly a few of the types of thrombotic processes which we have seen.

Slide 22: In this particular case, we see the thrombus outlined in a vein in the external plexus. Most of the dye on the third film is going up through the femoral. This is a

typical picture as given by Bauer of a thrombus in the vein.

Slide 23: Here, we see a blocked vein in the superficial circulation of the upper leg with the dye returning above the blocked area to the slightly dilated vein.

Slide 24: Here is a case in which the patient was extremely ill. Several embolic showers had hit the lung fields and had been demonstrated by roentgen methods. The dye is going up through a superficial plexus, largely in the internal saphenous to the region of the femoral fossa. At this point, it comes into the external iliac and outlines the external iliac showing a filling defect in the central portion of the dye column.

Slide 25: This larger film shows the defect slightly better than on smaller films. In this particular case, surgery was of life-saving value. This type of case is not frequent but is highly dramatic.

An attempt has been made to show some of the anatomy and tell a little bit of the physiology of the venous system of the leg. From this start, a few of the definite types of pathology which are seen have been demonstrated. Venography has proved of great value in giving accurate information in chronic and the more dramatic acute pathology of veins.

Report: Associated Hospital Service

A. C. Cook, president, and all other officers of the Associated Hospital Service were re-elected at the annual meeting of the board of trustees of the organization recently. Walter Bender is vice president; H. Hugh Wickham, secretary; and James P. Hyland, treasurer. Besides serving as president, Cook is also executive director, a position to which he was named last month as successor to Robert E. Mills. Ralph G. George continues as associate director.

Trustees of the organization, representing participating hospitals, in-

dustry, the public at large, and the Mahoning County Medical Society were all re-appointed at the meeting. They include, besides the officers, Dr. H. E. Patrick, Dr. W. K. Allsop, Dr. C. D. Hauser, Paul Wick, J. Fearnley Bonnell, D. A. Endres, Jacob A. Reisinger, Nathan B. Folsom, Frank W. Mouery, all of Youngstown, and H. Burdette Crow of Steubenville.

Cook reported total receipts of \$698,682.94 during 1943, of which \$549,606 or 78.6% was expended for hospitalization to 11 member hospitals in the area and various other non-member hospitals throughout this country and Canada. A surplus of \$62,231.44 accrued which has been added to the organization's reserve fund. Operating expenses were only 9.2% of income, Cook stated.

Membership totaled 126,956 on January 1st, an increase of 18,252 for the year. Hospital claims paid in 1943 numbered 14,566 at an average cost of \$37.78 per patient, and covered 94,679½ patient days for an average stay of 6½ days per patient. This is below the average and is accounted for, Cook stated, by the fact that "group hospitalization patients go to the hospital sooner and leave in better health quicker."

The Associated Hospital Service was organized here in 1938 and is one of the 77 plans in operation throughout the country under the auspices of the Hospital Service Plan Commission of the American Hospital Association, with a combined membership of more than 13,000,000. General offices are in the Realty Building and district offices are maintained in Warren, Steubenville and Marietta.

SAD STORY

"What's the matter, little boy?"

"Ma's gone and drowned all the kittens."

"Dear me, that's too bad."

"Yeah, she promised me I could do it."



Honor Roll



Doctors from Private Practice

- Lt. Chester M. Askue, Stark Gen. Hospital, Charleston, S. C.
 Lt. W. H. Atkinson, Jr., M.C., Ft. Huachuka, Arizona.
 Capt. O. A. Axelson, 01693329, Med. Det., Div. Hq. Co., A.P.O. 253,
 c/o Postmaster, New York City.
 Capt. Morrison Belmont, M.C., 01693481, Med. Det., Brookley Field,
 Mobile, Ala.
 Major B. M. Bowman, M. C., 0-515181, 81st Gen. Hosp., A.P.O. 515,
 c/o Postmaster, New York City.
 Capt. P. L. Boyle, M.C., 0500187, D9, A.P.O. 12845, c/o Postmaster,
 New York City.
 Capt. B. M. Brandmiller, 01693331, Hq. Med. Det., 593rd E. B. & S. R.,
 A.P.O. 565, c/o Postmaster, San Francisco, Cal.
 Capt. J. R. Buchanan, Sta. Hosp., Hammar Field, Fresno, Cal.
 Major R. S. Cafaro, 0349741, 97th Gen. Hosp., A.P.O. 9826, c/o
 Postmaster, New York City.
 Capt. H. E. Chalker, M.C. (0205925) 179th Sta. Hospital, A.P.O. 980,
 c/o Postmaster, Seattle, Wash.
 Lt. Comm. R. V. Clifford, U. S. Naval Mobile Hospital, Unit No. 11,
 c/o Fleet P. O., San Francisco, Cal.
 Capt. Joseph Colla, M. C., Post Surgeon & Comm. Officer, 2542 S. U.,
 P. O. Box 1142, Alexandria, Va.
 Major Fred S. Coombs, M. C., Truax Field, Madison, Wis. (Res. 2142
 Rowley Ave.)
 Lt. C. H. Cronick, Station Hospital, Maxwell Field, Montgomery, Ala.
 Lieut. A. R. Cukerbaum, M.C., (U.S.N.R.), U.S.N. Base Hospital
 No. 3, Navy 14C, c/o Fleet P. O., San Francisco, Cal.
 Capt. S. L. Davidow, M. C., Camp Bowie, Texas.
 Capt. G. E. DeCicco (0-1693384), 532nd Rgt. Med. Det., A.P.O. 322,
 c/o Postmaster, San Francisco, Cal.
 Maj. L. S. Deitchman, 182nd Gen. Hosp., La Garde Gen. Hosp., New
 Orleans, La.
 Capt. Samuel Epstein, M.C., (0-342038) 31st Field Hosp., A.P.O. 956,
 c/o P. M., San Francisco, Cal.
 Lieut. Comm. W. H. Evans, U.S.S. Rixey, c/o Fleet Post Office, San
 Francisco, Cal.
 Capt. B. I. Firestone, M.C., 6th Gen. Disp., A.P.O. No. 600, c/o P.
 M., N. Y. City.
 Lt. Comm. J. L. Fisher, (U.S.N.R.), Camp Perry, Williamsburg, Va.
 Lieut. J. M. Gledhill, O-296900, 1st Med. Squad. Grp. B, A.P.O. 201,
 c/o Postmaster, San Francisco, Cal.
 Major S. D. Goldberg, M.C., 135th Gen. Hosp., Ft. Benning, Ga.
 Capt. John S. Goldcamp, 0-316784, 44th Gen. Hospital, A.P.O. 4759,
 c/o Postmaster, San Francisco, Cal.
 Lt. Comm. M. B. Goldstein, M.C., Main Sick Bay, Nav. Train. Station,
 Newport, R. I.
 Capt. Raymond Hall, M. C., Newton D. Baker Hosp., Martinsburg, W. Va.
 Major H. E. Hathhorn, 0-228588, 83rd Gen. Hosp., A.P.O. 9648,
 c/o Postmaster, New York City.
 Capt. Malcolm H. Hawk, M.C., 0-406615, 44th Gen. Hospital, A.P.O.
 4759, c/o Postmaster, San Francisco, Cal.
 Major Herman H. Ipp, Sta. Hosp., Army Air Forces Navigation School,
 San Marcos Army Air Field, San Marcos, Texas.
 Capt. P. M. Kaufman, M.C., A.S.N. 0481412, 35th Station Hospital,
 A.P.O. 520, c/o Postmaster, N. Y.
 Capt. M. M. Kendall, M.C., (0-1693337) 395th Ser. Squadron, 85th Ser.
 Group, A.P.O. 637, c/o Postmaster, N. Y. City.
 Lt. J. P. Keogh, M.C., U.S.N.R., U.S. Naval Hosp., Seattle, Wash.
 Major J. E. L. Keyes, (Bushnell) General Hospital, Brigham, Utah.
 Capt. S. J. Klatman, 571st Med. Hosp., Ship Plat., Camp Stoneman, Calif.
 Capt. Herman A. Kling, M.C., Billings Gen. Hosp., Indianapolis, Ind.



Honor Roll



- Capt. J. B. Kupec, M.C., Sta. Hosp., Peterson Army Air Field, Colorado Springs, Colo.
- Comm. O. M. Lawton, U. S. N. Rec. Sta., 1704 Douglas St., Omaha 2, Neb.
- Capt. L. J. Malock, M.C., Borden Gen. Hospital, Chickasha, Okla.
- Maj. A. C. Marinelli, M.C., Camp Surg., Camp Plauche, New Orleans 12, La.
- Capt. H. D. Maxwell, M. C., Camp Ripley, Minn.
- Major P. R. McConnell, Mayo Gen. Hosp., Galesburg, Ill.
- Major W. D. McElroy, M.C., 32nd Sta. Hosp., A.P.O. 364, c/o Postmaster, New York City.
- Capt. R. H. Middleton, M. C., 1570th Ser. Unit, Med. Detachment, Camp Breckenridge, Morganfield, Ky.
- Passed Ass't Surgeon, (r) A. W. Miglets, U. S. Marine Hosp., Chicago, Ill.
- Lt. Stanley Myers, M. C., U.S.R., Base Hosp. No. 4, Navy 133, c/o Fleet Post Office, San Francisco, Cal.
- Capt. M. W. Neidus, M.C., Hq. A.G.F., R.D. 1, Ft. George Meade, Md.
- Major G. G. Nelson, M.C., 0230600, Sta. Hosp., A.P.O. 382, c/o Postmaster, N. Y. City.
- Lt. Col. John Noll, Jr., M.C., Sta. Hosp., Jefferson Barracks, St. Louis, Mo.
- Major R. E. Odom, M. C., 821st M.A.E.T. Squad., Bowman Field, Louisville, Ky.
- Major T. E. Patton, Med. Dept. Replacement Train. Center, Camp Grant, Ill.
- Lt. Robert L. Piercy, M.C., 0543543, Wm. Beaumont Gen. Hosp., El Paso, Texas.
- Capt. Asher Randall, 1560th Ser. Unit, Camp Atterbury, Indiana.
- Capt. Clara Raven, M.C., Newton D. Baker Gen. Hosp., Martinsburg, W.Va.
- Capt. L. K. Reed, M. C., Sta. Hosp. Army Air Base, Muroc Field, Calif.
- Ass't Surgeon (Res.) H. J. Reese, Apt. 2006-D, N. Porter Ct., Mobile, Ala.
- Lieut. J. A. Renner, U. S. S. Albermarle, c-o Postmaster, N. Y. City.
- Capt. John A. Rogers, M.C., 0449653, 262nd Sta. Hosp., A.P.O. 782, c/o Postmaster, New York City.
- Capt. M. S. Rosenblum, M.C., (0-1693517) Sta. Hospital, A.P.O. 848, c/o Postmaster, New York City.
- Capt. J. M. Russell, M.C., Hq. Base D, A.P.O. 929, c/o Postmaster, San Francisco, Cal.
- Lieut. Samuel Schwebel, M.C., U.S.N., U.S.S. Kankakee, c/o Fleet Post Office, San Francisco, Cal.
- Major C. W. Sears, M.C., (0-295896), 313th Sta. Hospital, A.P.O. 553, c/o P.M., N. Y. City.
- Capt. J. L. Scarnecchia, M.C., A.A.B., Sta. Hosp., Galveston, Texas.
- Lt. L. S. Shensa, M.C., Lawson Gen. Hospital, Chief, Fever Therapy Dept., Atlanta, Ga.
- Capt. Henry Sisek, M.C., 0417070, 76th Sta. Hosp., A.P.O. 952, c/o Postmaster, San Francisco, Cal.
- Maj. Ivan C. Smith, 0-234333, Billings Gen. Hosp., Ft. Benj. Harrison, Ind.
- M. M. Szucs, U.S.P.H.S. (R) Passed Ass't Sur., U. S. Marine Hospital, Manhattan Beach, Brooklyn, N.Y.
- Capt. Samuel Tamarkin, M. C., A. A. B., Columbia, S. C.
- Capt. Densmore Thomas, M.C., 01693343, A.P.O. 38, Co. B 113th Med. Bn., c/o Postmaster, San Francisco, Calif.
- Maj. W. J. Tims, (0-466186) 10th A.D.G., Hq., A.P.O. 149, c/o Postmaster, New York City.
- Capt. C. C. Wales, M.C., (0-327480) A.P.O. 98, 323rd Med., Bn., c/o Postmaster, San Francisco, Calif.
- Capt. S. W. Weaver, M.C., Sta. Hosp. SAAAB, Santa Ana, Cal.
- Capt. L. W. Weller, M.C., Sta. Hosp., 1865 SvC, Unit, Camp Chaffee, Ark.
- Capt. John A. Welter, 0-1693346, 437th Med. Coll. Co. (Sep.), A.P.O. 403, c/o Postmaster, New York City.
- Lieut. Com. H. S. Zeve, M.C., (USNR), U. S. Naval Hospital, Navy 117, c/o Fleet P. O. N. Y. City.



Honor Roll



Youngstown Hospitals' Internes

- Lt. W. Frederick Bartz (A prisoner of the Japs)
- Capt. David E. Beynon, 903rd AAA AW Bt'n, A.P.O. 827, c/o Postmaster, New Orleans, La.
- Capt. Kenneth E. Camp, M.C., (01693332) Co. B., 113th Med. Bn., A.P.O. 38, c/o P. M., San Francisco, Cal.
- Capt. Louis D. Chapin, M.C., 82nd Gen. Hosp., A.P.O. 515 c/o Postmaster, N. Y. City.
- Lt. Walter V. Edwards, Jr., Ft. Hayes, Columbus, Ohio.
- Lt. Howard R. Elliott, Ft. Benjamin Harrison, Indiana.
- Lt. William E. Goodman, Co. B., 83rd Medical Battalion, 13th Armored Division, A.P.O. 263, Camp Beale, California.
- Lt. Benjamin G. Greene, 152nd Field Artillery Battalion, A.P.O. 43, c/o Postmaster, San Francisco, Cal.
- Lt. James Hamilton, M.C., U.S. Navy, A.P.O. 661, c/o Postmaster, New Orleans, La.
- Capt. Woodrow S. Hazel, Station Hospital, Lowry Field, Colorado.
- Lt. Joseph M. Herbert, Ft. Sam Houston, Texas.
- Capt. Herbert B. Hutt, Torney General Hospital, Palm Springs, Calif.
- Richard P. Jahn, (Address Wanted)
- Major Louis R. Kent, M. C., (0379847) Med. Det., 506th Parachute Inf. Reg., A.P.O. 472, c/o Postmaster, New York City.
- Lt. Sidney C. Keyes, Carlyle Barracks, Pa.
- Ass't Surgeon Robert S. McClintock, U.S.S. Tampa, C.G., c/o Fleet P.O., New York City.
- Major Donald A. Miller, M.C., (0-471307), 30th Station Hospital, A.P.O. 690, c/o P. M., N. Y. City.
- Capt. Albert M. Mogg, Co. C, 329th Medical Bat., Army P.O. 104, Camp Adair, Oregon.
- Lt. Wilbur V. Moyer, (Address Wanted)
- Lt. Melton E. Nugent, Aberdeen, S. Dakota.
- Lt. Raymond M. Neseemann, Algoma, Wisconsin.
- Lt. Howard E. Possner, Jr., (Address Wanted)
- Capt. Louis G. Ralston, A.S.N.-O-47972, 533rd Sqd., 381st Bomb G. P., A.P.O. 634, c/o Postmaster, New York City, N. Y.
- Lt. Frederick L. Schellhase, M.C., 0490063, Fifth Air Force Hq., Advanced Echelon, A.P.O. 929, c/o Postmaster, San Francisco, Cal.
- Major Charles R. Sokol, M.C., 15th Fighter Group, A.P.O. 959, c/o Postmaster, San Francisco, Cal.
- Capt. Frederick R. Tingwald, M.C., 60th Field Artillery Battalion, A.P.O. 9, c/o Postmaster, New York City.
- Lt. Nevin R. Trimbur, 2nd Ech., Cub 9, c/o Fleet P.O., San Francisco, Cal.
- Capt. Richard W. Trotter, Hq. 151st Med. Bn., A.P.O. 689, c/o Postmaster, New York City.
- Robt. E. Tschantz, Home address, 740 Seventh St., N. W., Canton, Ohio.
- Lt. Clyde K. Walter, Station Hospital, SCU 1949, West Los Angeles Area, Sawtelle 25, Cal.
- Walter B. Webb, Ass't. Sur. (R) Federal Penitentiary, Lewisburg, Pa.



Honor Roll



St. Elizabeth's Internes

- Capt. Adanto D'Amore, Med. Corp. U. S., American Prisoner of War, Interned in Philippine Islands, c/o Japanese Red Cross, Tokyo, Japan, Via New York, N. Y.
- Maj. Geo. L. Armbrecht, M.C., (0357508) Med. Det. 8th Inf., A.P.O. 4, c/o Postmaster, New York City.
- Capt. Nathan D. Belinky, M.C., American Prisoner of War, Interned in Philippine Islands, c/o Japanese Red Cross, Tokyo, Japan, Via New York, N. Y.
- Dr. Donald J. Burmingham (P.H.S.) 210 Domer Ave., Takoma Park, Md.
- Lt. David D. Calucci (Address Wanted).
- Lt. C. J. DUBY, M.C., 62 Lawson Gen. Hospital, Atlanta, Georgia.
- Maj. E. F. Hardman, Station Hosp., Morris Field, Charlotte, N.C.
- Lt. Morris I. Heller (Address Wanted).
- Lt. V. G. Herman, Public Health Dispensary, 4th and D. Street, Washington, D. C.
- Capt. Sanford Kronenberg, M.C. (01693635) 118th Station Hospital, A.P.O. 464, New York, N. Y.
- Capt. H. C. Marsico, M.C., Co. B 48th Med. Bn., A.P.O. 252, c/o Postmaster, New York City.
- Maj. Stephen W. Ondash, M.C., 4th Aux. Surg. Group, Lawson General Hospital, Atlanta, Georgia.
- Capt. A. K. Phillips, Patterson Field, Fairfield, Ohio.
- Lt. C. E. Pichette, 185 Otsega, Iliion, N. Y.
- Capt. Joseph Sofranec, (0489202) 110th Station Hospital, A.P.O. No. 3385, c/o Postmaster, New York, N. Y.
- Lt. L. J. Thill, c/o U.S.S. Bibb, Fleet Post Office, New York, N. Y.
- Lt. John Veit, Southwest Pacific. (Correct address wanted).

Corydon Palmer Dental Society

S. R. Abrams	R. C. Harwood	J. A. Parillo
M. Alpern	P. B. Hodes	F. K. Phillips
N. J. Alterio	J. J. Hoffrichter	A. E. Plahy
	J. J. Hurray	W. S. Port
G. R. Backus		R. W. Price
M. W. Baker	F. D. Irwin	E. W. Reed
V. P. Balmenti	W. T. James	P. P. Ross
F. C. Beaumont	P. P. Jesik	W. R. Salinsky
T. L. Blair	T. K. Jones	J. F. Schmid
E. L. Boye	H. E. Kerr	R. A. Senseman
R. V. C. Carr	A. S. Lasky	J. E. Shafer
J. D. Chessrown	A. Malkoff	J. J. Sirotnik
F. E. Elder	J. L. Maxwell	P. W. Suitor
C. F. Fester	W. J. McCarthy	J. M. Thornhill
A. E. Frank	W. V. Moyer	R. E. Wales
L. Galvin	A. G. Nicolette	D. J. Welsh
		W. T. Willis



Honor Roll



St. Elizabeth's Hospital Nurses

Regina Aleksiejezyk	Mary Fehrenbaugh	Theresa Magyar
Rita Bahen	Cecilia Flannery	Margaret Maletic
Ruth Billock	Virginia Frame	Josephine Malito
Bettijane Binsley	Hilda Gherasin	Shirley O'Horo
Roselyn Block	Mary Grace Gabig	Alma Pepper
Clara Bossa	Irene Griffin	Marie Perfett
Margaret Brinsko	Ann Hassage	Congetta Pietra
Ursula Burke	Ann Heiser	Ann Pintar
Betty Lou Butler	Margaret M. Hogan	Teresa Schlecht
Eleanor Cassidy	Catherine Holway	Anna Sullivan
Ann Chmura	Mary L. Kelley	Susan Vanish
Mildred Clarke	*Mary Klaser (Deceased)	Rose Vertucci
Louise Cox	Helen Kral	Irene Vassey
Catherine Crogan	Laura Kuclyeski	Ann Walko
Virginia De Paul	Mary Lubonovic	Mary Louise Yamber
Helene Dluhos	Mildred Lymburner	Ethel Yavorsky
Ann Dorsey	Mary McCambridge	Helen Zamary
Catherine Doyle	Clara McNeish	Helen Zerovich
Mary Rita Duffey	Eileen Magill	Mary Zirosso
Mildred Engel		

Youngstown Hospital Nurses

Mabel Anderson	Elizabeth Heaslip	Edna May Ramsey
Ellen Andre	Mary Ann Herzick	Lucille Reapsummer
Ethel Baksa	Gertrude Hitchcock	Mary Resti
Dorothy Barner	Rosemary Hogan	Ruth Rider
Mary Berkowitz	Frances Bulla Holden	Marie Rolla
Vera Best	Mary Hovanec	Rose Rufener
Suzanne Boehm	Elizabeth Hudock	Margaret Scarnecchia
Stella Book	Irene Janceski	M. Schnurrenberger
June Bowles	Agnes Keane	Mary Margaret Shore
Betty Boyer	Kathleen Kemerer	Ruth Simmons
Florence Brooks	Katherine Keshock	Mary Louise Smith
Dorothy Buckles	Eugenia Kish	Mary Stanko
Ruth Burrage	Lois Knopp	Donna Stavich
Marjorie Bush	Irma Kreuzweiser	Virginia E. Stewart
Victoria Dastoli	Jessie Lane	Stella Sulak
Margaret Davis	Marietta Leidy	Mary Taddei
Dorothy Dibble	Vivian Lewis	Julia Takach
Mary Dudzensky	Olive Long	Freda Theil
Rita Duffy	Ruby Lundquist	Ursula Thomas
Nellie Duignan	Elizabeth McBride	Rebecca Ulansky
Clara Esterhay	Jeannette McQuiston	Anna Vanusek
Margaret Fajak	Hilda E. Mort	Madaline Vranichich
Ruth Friedman	Frances Moyer	Agnes Welsh
Sally Friedman	Helen Ornin	Eleanor Whan
Ethel Gonda	Dorothy Oswald	Edna Williams
Alice Gosnell	Anglyne Paulchell	Pearl Yanus
Dorothy Graves	Ruth Peters	Mildred Yocum
Evelyn Louise Hahlen	Mary Petransky	Jennie Zhuck

CROSS DRUGS

YOUNGSTOWN OWNED AND OPERATED

6 EAST FEDERAL STREET
In the Stambaugh Bldg.

1 WEST FEDERAL STREET
In Central Tower

Five Pharmacists to Serve You



WE INVITE YOU TO VISIT OUR
PRESCRIPTION DEPARTMENTS



PATRONIZE OUR ADVERTISERS AND MENTION THE BULLETIN



THE MERCER SANITARIUM

MERCER, PENNSYLVANIA

For Nervous and Mild Mental Disorders. Located at Mercer, Pennsylvania, thirty miles from Youngstown. Farm of one hundred acres with registered, tuberculin-tested herd. Re-educational measures emphasized, especially arts and crafts and outdoor pursuits. Modern laboratory facilities.

Address:

W. W. RICHARDSON, M. D., Medical Director
Formerly Chief Physician, State Hospital for Insane, Norristown, Pa.

SINCE LAST MONTH—

Dr. and Mrs. A. J. Brandt announce the birth of a daughter, their fourth child, at St. Elizabeth's Hospital. The baby is to be named Heidi.

Major Steven W. Ondash has received the Legion of Merit for exceptionally meritorious conduct in the performance of outstanding service from Sept., 1941, to April, 1942.

Major Ondash served as surgeon for the U. S. Engineers Dept. employees and a group of civilian workers at a barren and desolate station in Greenland, north of the Arctic circle. He has also served in British West Indies, Canada and Alaska. He recently went overseas again after being stationed at Lawson General Hospital for eight months.

Lt. Joseph P. Keogh, home after two years at Pearl Harbor, gives district men much praise. The hospital in which Dr. Keogh was working at Pearl Harbor is more than double the capacity of all the Youngstown hospitals. It receives the wounded from the Central Pacific area, many of them from ill-fated Tarawa. After a brief visit with his family, Lt. Keogh will go to the Naval Hospital at Seattle, Washington, where his wife and son will accompany him.

Capt. John M. Russell, is medical officer at the dispensary of General MacArthur's advanced headquarters in New Guinea. In the South Pacific since November, he had served more than a year as battalion surgeon at Ft. Leonard Wood, Camp Cooke, and Camp Beale.

Dr. and Mrs. J. J. McDonough have returned home after spending a few days in Chicago.

Capt. Sidney L. Davidow is home on leave after spending a year in the Aleutians. Dr. Davidow participated in the battle of Attu last May and described it as "one of the most difficult small-scale operations of the war" because of the rough terrain and the nasty weather. A

person doesn't know what snow is until he has lived in the Aleutians, often digging our way out of the huts. Capt. Davidow will report to Camp Bowie, Texas, at the end of his leave.

Dr. Paul J. Mahar returned recently from Ann Arbor, Mich., where he completed a three-month postgraduate course in internal medicine at University of Michigan.

Frederick J. Bierkamp, Jr., son of Dr. and Mrs. F. J. Bierkamp, was promoted recently to Lieutenant (j. g.) "somewhere in England." A member of the amphibious forces, he has been overseas since July.

Dr. and Mrs. E. J. Wenaas spent a few days in New York recently.

Capt. Morris Rosenblum is home on leave, having been in service for 11 months in Porto Rico at the station hospital.

Dr. Genevieve Delfs has returned after a 10-day trip to Birmingham, Ala.

Major Brack Bowman has arrived in the British Isles and has seen Major Harold Hathhorn.

Capt. J. L. Scarnecchia and Capt. John A. Welter have arrived in England.

Major Louis Deitchman has arrived overseas.

Capt. Middleton spent Easter with his family.

Major Robert E. Odom arrived home Easter Sunday and spent a week with his family. He has returned to Bowman Field, Louisville, Ky.

Capt. Barclay Brandmiller and Capt. Gabriel De Cicco have recently met somewhere in the Pacific.

Capt. Raymond A. Hall was home on sick leave for his first visit with his family since he enlisted. Dr. Hall spent ten months at an American base hospital in the Atlas Mountains with Major W. D. McElroy, treating casualties from the Tunisian battlefield. Captain Hall was in charge of all ear, eye, nose and throat cases of the hospital among casualties and

OVERLOOK SANITARIUM

New Wilmington, Pa.

A beautifully located sanitarium, just fifteen miles from Youngstown, especially equipped for the care of psychoneurosis. Mental cases and alcoholics not admitted.

Re-educational Methods

Rest Cure

Psychotherapy

Hydrotherapy

Elizabeth McLaughry, M.D. Elizabeth Veach, M.D.



PATRONIZE OUR ADVERTISERS AND MENTION THE BULLETIN



There's Class In Every Glass of

Renner's

Brewed to an age old formula under modern methods, Renner Premium Beer and Ale maintains its delicious flavor, always! Make your next—Renner Premium.

PHONE
44467

THE
RENNER BREWING
COMPANY
YOUNGSTOWN, OHIO

B COMPLEX plus IRON plus LIVER ENDOGLOBIN TABLETS

Reg. U. S. Pat. Off.

Each tablet provides: Liver Residue 3 grs., Ferrous Sulfate, Exsiccated (U.S.P.) 3 grs., Thiamin HCL 1 mgm., Riboflavin 0.066 mg. and Niacin 10 mgs.

Each tablet provides the raw material universally accepted for hemoglobin regeneration, plus the raw materials for the biochemical mechanism in which hemoglobin functions.

LOW COST EFFECTIVE
HEMATINIC THERAPY

In bottles of 40, 100 and 1000 tablets
Available at All Ethical Pharmacies

ENDO PRODUCTS, INC.

84-40 101st St.,
Richmond Hill, 18, New York

worked side by side with Major McElroy, chief surgeon, during the hardest days of the Tunisian fighting when there were as high as 350 admissions to the hospital in one day. Captain Hall met only four Youngstowners while in North Africa. Howard Welsh, with the engineers, helped to build the hospital. Later he met Drs. Burt Firestone and John Rogers. He also saw Sgt. Joe McCrone in Casablanca.

The Industrial Commission

(Continued from Page 127)

terrible if everybody who thinks himself superior, really were so. His exasperation at those of us who are dumb would kill him.

At the meeting of the dermatologists, someone suggested that supervision should be exercised, so far as those problems are at issue, by a dermatologist. That's O. K. But, someone else urged that this "referee" should live in Columbus. Nix; not on your life! The reviewing authority should not be any one man, but three men. And no more than one should live in Columbus. The tenure of any referee, boys and girls, should be for no more than two terms of three years. And members should not be chosen by the commission. That's a job for the whole group of each speciality, at the Annual Meeting of the State Medical Association. The G.P.'s should choose theirs in the same way.

Unity is essential in these problems. No meeting should be dominated by conceit but by the wish to hear from all and to set up a fair *modus operandi*, as well as a sound schedule of fees.

What comes out of this if anything does, will be glued to us for a while of a long time. The fact that one may be located in Columbus won't make his judgment perpetually sound. It may make a bad precedent.

They say that "too much power over the nation" is centered in Washington; your old Pal hates to see us set the vicious precedent of centering "too much power over the state" in Columbus. In other words, a good thing is to cultivate an Allergy against too much one-man stuff. Honest democracy isn't so bad as a lot of people in the medical profession seem to think.

Woman's Auxiliary

The monthly meeting of the Woman's Auxiliary of the Mahoning County Medical Society took place April 17th at the home of Mrs. W. O. Mermis, 105 Overhill Rd.

The meeting was called to order by the President, Mrs. R. B. Poling.

Reports from the Chairman of the various committees were given. Old and new business was discussed.

A pleasing event of the afternoon was a dramatization of a popular play by Mrs. Sidney Moyer, Mrs. Martha A. McAlpine and Mr. Talbot Pearson of the Youngstown Players. This was followed by a charmingly arranged Spring Tea.

Mrs. R. B. Poling and Mrs. Earl Brant presided at the beautiful tea table.

Mrs. Waldo Z. Baker and Mrs. James B. Nelson assisted Mrs. Mermis.

SECRETARY'S REPORT

The regular monthly Council meeting of the Society was held at the office of the Secretary on the 10th of April.

The following application was passed by council:

V. C. HART, M. D.
Active Membership

Unless objection in writing is filed with the Secretary within 15 days the applicant will become a member of the Society.

G. M. McKelvey, M. D.
Secretary.

SPRING IS HERE!

While your car is parked—
have it

- Lubricated
- Washed
- Oil Changed

Out-of-town guests of the
Medical Society are always
welcome.



Central Square Garage

24 Hour Service

Wick & Commerce Phone 35167

H. H. TREUDLEY & CO. INC.

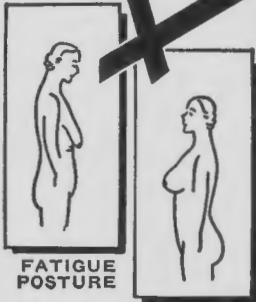
123 E. COMMERCE STREET

OFFICE SUPPLIES
ACCOUNT BOOKS
STEEL & WOOD OFFICE
FURNITURE

For Prompt Service
Call 4-4479

Tune in Our Program
Doctors Courageous
EVERY SUNDAY 3:15 P. M.
Radio Dial 1450 — WFMJ

●
C. B. CASSADAY
260 Lincoln Avenue
Exclusive Prescription Pharmacy
Phone 40107



FATIGUE
POSTURE

LORDOSIS
POSTURE

WRONG POSTURE TIRES YOU OUT!

Get a

SPENCER

to give you healthful, *restful*
support and good posture.

Helen Mantle Foster

Independent Representative
543 Ferndale Avenue

LESTER'S PRESCRIPTION PHARMACY

264 W. Federal St.

Next to Warner Theatre

Professional prescription service at fair price

—Conveniently Located—

We invite your visit or call

AMPOULES — BIOLOGICALS—FIRST AID SUPPLIES

FROM OUR DOCTORS IN THE SERVICE

Doctors are earnestly requested to write the Bulletin of their activities and by all means CHANGE OF ADDRESS. Let's help keep the good work up.

Feb. 9th, 1944

I have just received the November, 1943, issue of the Bulletin of the Mahoning County Medical Society, and wish to thank you for it. I have found it most interesting, and enjoyed reading about the activities of the men with whom I associated while interning at the Youngstown City Hospital.

Your magazine is a little off on the address listed for me on page 254. Instead of reading "Georgia," it should read New Guinea.

I am now Headquarters Squadron Surgeon, 5th Air Force Headquarters, Advanced Echelon. I have a large dispensary, that is as well equipped as any that you might find at the usual army post in the States, and am responsible for the health and medical care of about 1800 men.

Thank you again for sending me the Bulletin. I would appreciate being kept on your mailing list, if this is possible.

Capt. Frederick L. Schellhase, M. C.

*

March 17th, 1944

Once again I am writing to request that you change my address so I shall continue to receive the Bulletin. The fact that this is about the fourth time during the past year that I have made this similar request should indicate that I do want to receive each issue and that I appreciate the Society sending it. I am now somewhere in England and am getting adjusted to life in an European Country. We are very comfortable here and occasionally get away to see the interesting sights and visit well known spots. However, like most all the others, I shall be very happy and pleased when this work is done over here and we can return to the good old U. S. A.

Major Geo. L. Armbrecht.

*

April 21, 1944

Just received my first Bulletin from Youngstown since arriving overseas. My new A.P.O. is 515, c/o P.M., N. Y. City.

I am pleased to get the Bulletin and read about the other doctors and nurses of Youngstown Hospitals and what they are doing. I am very fortunate in being in this large unit for we have a very nice hospital and comfortable quarters, almost as at home. We are located in a large park, and at this time of the year

the English countryside really is beautiful.

Capt. "Hap" Hothhorn is in a unit near by, in fact he attended one of our dances a few weeks ago. I had not seen him since I left Capt. Adair in Oregon. The thing we miss the most is some good old American beer. Whiskey is almost unheard of. What we couldn't do to a case of Renner's Ale as we used to back home. In the near future I hope to contact Major Kent, Capt. Tingwald, and Second Lt. Irma Kreuzweiser as they are not far away. I spent a very pleasant week-end last spring with Major McConnell down at State Guard Hospital, Charleston, S. C. It is nice to see one's old friends, good luck to everyone.

Capt. L. D. Chapin.

Capt. Weller Transferred

Captain Lawrence W. Weller, has been assigned as assistant chief of the dispensary service of the station hospital, Camp Chaffee, Arkansas, according to the public relations branch. The station hospital is part of the Army Service Forces.

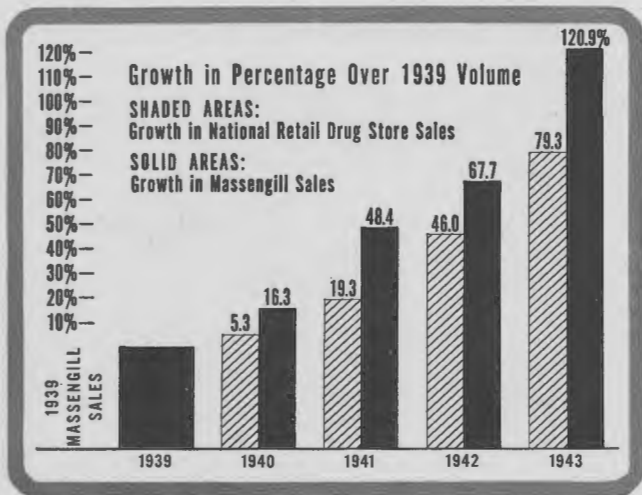
Before his transfer to Camp Chaffee, Captain Weller was stationed at Camp Wallace, Texas. Mrs. Weller and their three children, Nancy, Sally, and Lawrence, Jr., are living in Galveston, but plan to join Captain Weller shortly.

A PERTINENT TALK

By DeWITT EMERY

Note:—This address was given as part of Episode No. 3 of "Abe Lincoln's Story." The author is a brother of one of our prominent citizens, Norman Emery, and is a close friend of Dr. H. E. Patrick. It is Dr. Patrick that we are indebted to for calling our attention to this simple, obvious, but important statement.—Editor.

One of the blessings that has emerged out of troublesome 1943 is the realization by millions of Americans, who never thought much about it before, that American industry, as well as American industrial leadership, really do mean something to every individual citizen.



Thank you, Mr. Druggist

FOR THIS MAGNIFICENT SUPPORT

To be permitted to keep step with the growth of the industry which one serves is gratifying; to be favored with a preference that leads to considerably greater growth, is a recognition granted to but few manufacturers. Hence it is with a deep feeling of gratitude that we thank the pharmacists of the United States, who by their support have made possible the remarkable growth of this organization, have enabled us to establish this modern manufacturing plant, organize this staff of competent research men.

THE S. E. MASSENGILL COMPANY

Bristol, Tenn. - Va.



46 YEARS OF SERVICE

May

It has become more and more apparent, with each passing day, that the resourcefulness and genius of our industrial leadership are responsible for the superior arms and equipment our American boys are using on the firing line. Also it has become more and more apparent that this superiority in arms is one reason these boys of ours are winning battles while suffering only a fraction of the losses they inflict on the enemy.

Our industrial leaders had the know how of design, conversion, production and transportation . . . also the grit and determination to carry through no matter how great the odds against them. Because of this, a miracle of production has been wrought this year, the like of which no one ever dreamed was possible.

Of course, all of the know how and managerial skill in the world would not have amounted to much in terms of total production without the loyal support of the hard working, patriotic men and women in our factories. Those who stuck to their jobs day in and day out made it possible for a continuous stream of supplies to flow to our armed forces.

When production goals for guns, planes, tanks, ships and the million and one other things needed to fight a war were set, the first of 1943, the quantities seemed fantastic. This country in one year was scheduled to produce more than the dictator nations, with their supposedly far greater efficiency, had been able to turn out in ten years. Most of these schedules, even with their fantastic quantities, have been met and some of them greatly exceeded. On aircraft, for example, we are turning out nearly three hundred planes a day. That's a way above anything any of our enemies, or any of our allies for that matter, ever aspired to.

Why can we do it when they can't? The answer is that for one hundred fifty years, free men in a free country have been building a new and better civilization. Their

freedom has been and is secured by Constitutional Government, with the additional safeguard of a Bill of Rights, under which the rights of the individual citizen are guaranteed. This combination of Constitutional Government and free men has made possible the production of greater wealth and provided greater happiness for all Americans than ever before existed any place in the world since the beginning of recorded history. That's why we can do it, and that's why—when this war is over—we in this country are going on to even better and bigger things with a still higher standard of living. The lessons we have learned from war production will be applied to produce a steadily increasing supply of consumer goods at lower prices. And there is no power on earth—internal or external—which can destroy the American way of life, provided the American people keep two things forever in the forefront of their minds:

First—there never was and never will be a substitute for hard work and thrift.

Second—that all of the important elements in our national economy must work in harmony toward a common goal.

Labor cannot prosper while capital lies idle. Capital cannot earn a satisfactory return while labor is unemployed. The farmer can only sell his products at a price which makes him prosperous when commercial and industrial workers are able to buy. And the Government—no matter how many new and different taxes may be applied—cannot collect as much tax revenue on a restricted volume of business as it can when business is booming.

These are self evident facts. Maybe that's what's wrong. Maybe these facts are so evident that we have not been able to see them. Maybe that is why we have not done more about developing the desired harmony among these important elements in our national life.

IN HYPERTENSION

*Safe,
Gradual,
Prolonged
Vasodilation*

NITRANITOL

Brand of Mannitol Hexanitrate

To avoid arterial damage in the management of hypertension, a therapeutic agent should provide gradual but persistent and long-continued reduction of arterial tension—rather than a sharp drop in blood pressure.

Nitranitol has a slow-developing, steady, prolonged vasorelaxing power . . . its effect lasts:

- 1½ times as long as erythrityl tetranitrate
- 4 times as long as sodium nitrite
- 12 times as long as glyceryl nitrate

Moreover, Nitranitol can be used over extended periods of time without toxic manifestations. It does not produce nausea, and headache is rarely encountered.

Supplied in the form of scored tablets containing ½ grain mannitol hexanitrate, Nitranitol is available at prescription pharmacies in bottles of 100 and 1000.

Combining Sedation with
Hypotensive Action

NITRANITOL

Brand of Mannitol Hexanitrate

WITH PHENOBARBITAL

Each scored tablet contains ½ gr. mannitol hexanitrate and ¼ gr. phenobarbital. Bottles of 100 and 1000.

T. M. "Nitranitol"

Reg. U.S. Pat. Off.

MERRELL

116th Year

THE WM. S. MERRELL COMPANY · CINCINNATI, U. S. A.

Solving . . .

The Financial Problem



FOR THE PATIENT—

The dignified, low-cost Budget Plan of a non-commercial agency, appeals to many patients among ALL classes, as a convenient and helpful service for distributing the cost of essential dental care, when prompt payment is not otherwise possible.

FOR THE DOCTOR—

Immediate cash instead of book accounts . . . no recourse responsibility . . . each case final . . . no reserve withheld . . . no financial misunderstandings . . . no collection problems; no bad debt losses . . . a paid-up patient is a satisfied patient.



Use The
PROFESSIONAL BUDGET PLAN
Of The
MEDICAL DENTAL BUREAU
1204 Central Tower
J. L. PRICE, Executive Director



A Builder-Upper with a Pep-er-upper
for your patient who has been shut-in too long—or had too many colds—or—perhaps just tired out.

FERLICON CAPSULES

Vitamin—B complex fortified with ferrous-sulphate and liver concentrate.

The B-Complex (containing 3 mg. of B-1 to the capsule) as the long-range reconstructive is amplified by 3 grains of ferrous sulphate and 7 grains of liver concentrate for quick, warm, blood-enriching, action.

This combination of speedy relief with the tried, thorough action of B-Complex is a fine preparation in convenient capsule form, to be administered three times daily.

WHITE'S DRUG STORES

Dependable Prescription Druggists

Since 1894

FAIR OAKS VILLA

Sanitarium CUYAHOGA FALLS, OHIO



A Modern Sanitarium for the Treatment and Care of
Nervous and Mental Patients
ALCOHOL and DRUG ADDICTION



Special Facilities Provided for
Occupational Therapy • Recreational Therapy
• Hydrotherapy

PRIVATE HOSPITAL

Licensed by the State of Ohio
E. A. PAISLEY, Business Mgr.

Fair Oaks Villa Sanitarium is a member of the American Hospital Association and Central Neuropsychiatric Hospital Association



May

*Why Are
Metandren Linguets
Better than Regular
Methyltestosterone
Tablets For
Sublingual Therapy*



METANDREN* LINGUETS* are specially designed for sublingual therapy. Regular methyltestosterone tablets are intended for ingestion therapy.

A Regular Tablet



Disintegrates Too Rapidly



METANDREN LINGUETS disintegrate slowly and permit complete absorption. Regular tablets... rapid dissolution... minimal absorption.

More Salivation ◀ **REGULAR TABLET** ▶ *More Material Swallowed*



METANDREN LINGUETS sidetrack portal circulation and liver, thus preventing partial inactivation... $\frac{1}{3}$ to $\frac{1}{2}$ less dosage required.

**METANDREN
LINGUETS**

Ciba

PHARMACEUTICAL PRODUCTS, INC.

SUMMIT NEW JERSEY
CANADIAN BRANCH: MONTREAL, QUEBEC

*Trade Marks Reg. U. S. Pat. Off. "Metandren Linguets" identify the product as methyltestosterone of Ciba's manufacture, for sublingual administration.

TOMORROW'S MEDICINES FROM TODAY'S RESEARCH

NUTRITIONAL ANEMIA IN INFANTS

REASONS FOR EARLY FEEDING OF PABLUM (OR PABENA)

1. The infant's initial store of iron is rapidly depleted during the first months of life. (Mackay,¹ Elvehjem²). About 30% of the iron freed from the hemoglobin during the first two months is lost, and while hemoglobin destruction takes place, all infants are in negative iron balance. (Jeans,³ and Usher, et al.⁴).
2. During the early months of life the infant obtains very little iron from milk — 1.44 mg. per day from the average bottle formula of 20 ounces or possibly 1.7 mg. per day from 28 ounces of breast milk. (Holt,⁵ Jeans³). The incidence of nutritional anemia has been found to be high among infants confined largely to a diet of cow's milk. (Davidson, et al.,⁶ Usher, et al.,⁴ Mackay¹).

For these reasons and also because of the low hemoglobin values so frequent among pregnant and nursing mothers (Strauss,⁷ and Gottlieb and Streat⁸), the pediatric trend is constantly toward the addition of iron-containing foods at an early age, both to normal infants and those with pylorospasm. (Neff,⁹ Blatt,¹⁰ Brennemann,¹¹ Monypenny¹²).

THE CHOICE OF THE IRON-CONTAINING FOOD

1. Many foods high in iron actually add very little to the diet because much of the mineral is lost in cooking or because the amount fed is necessarily small or because the food has a high percentage of water. Strained spinach, for instance, contains only 1 to 1.4 mg. of iron per 100 Gm. (Bridges¹³).
2. To be effective, food iron should be soluble. Some foods fairly high in total iron are low in soluble iron. Thus egg yolk and liver have less soluble iron than does farina, which is very low in total iron. (Summerfeldt¹⁴). Oxalate-containing leafy vegetables are low in soluble iron and appear not to be well utilized as a source of iron by infants. (Kohler, et al.,¹⁵ and Stearns¹⁶).
3. Pablum (and Pabena) are high both in total iron (30 mg. per 100 Gm.) and soluble iron (7.8 mg. per 100 Gm.) and can be fed in significant amounts at an early age, without digestive upsets. (Blatt,¹⁰ Monypenny¹²). Clinical studies of sick and well babies have shown Pablum to be of value in raising hemoglobin values (Crimm, et al.,¹⁷ Summerfeldt and Ross¹⁸), even when egg yolk and spinach were not effective (Stearns¹⁶).

Pablum, a palatable mixed cereal food, vitamin and mineral enriched, and cooked thoroughly and dried, consists of wheatmeal (farina), oatmeal, wheat embryo, cornmeal, powdered beef bone, sodium chloride, alfalfa leaf, brewers' yeast, and reduced iron. (The oatmeal form of Pablum is called Pabena.)

¹⁻¹⁸Bibliography on request.