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Publication/Creation

London : Burroughs Wellcome, [1938]

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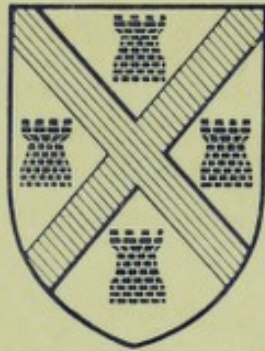
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PLYMOUTH



SOUVENIR
B.M.A. MEETING
1938

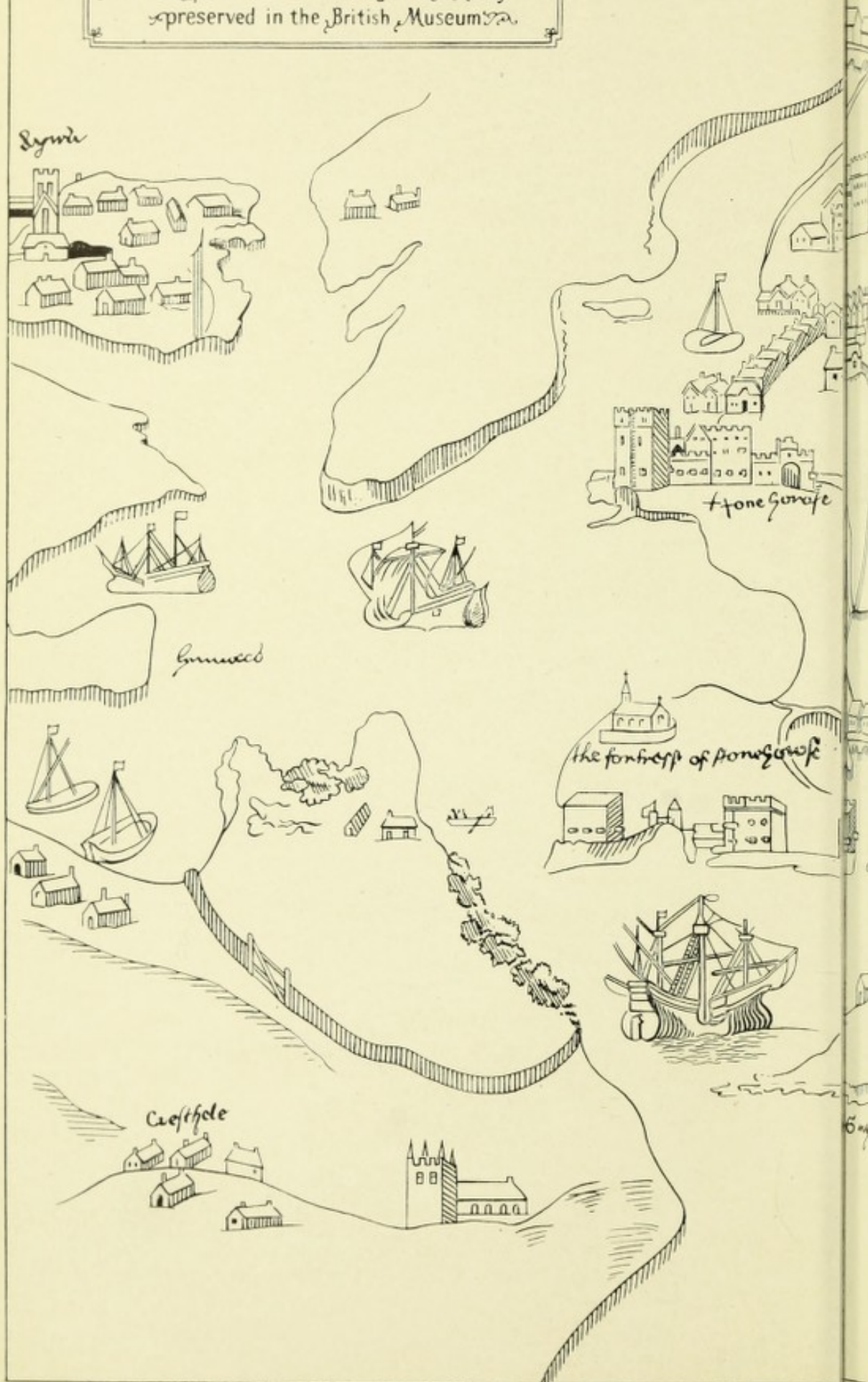
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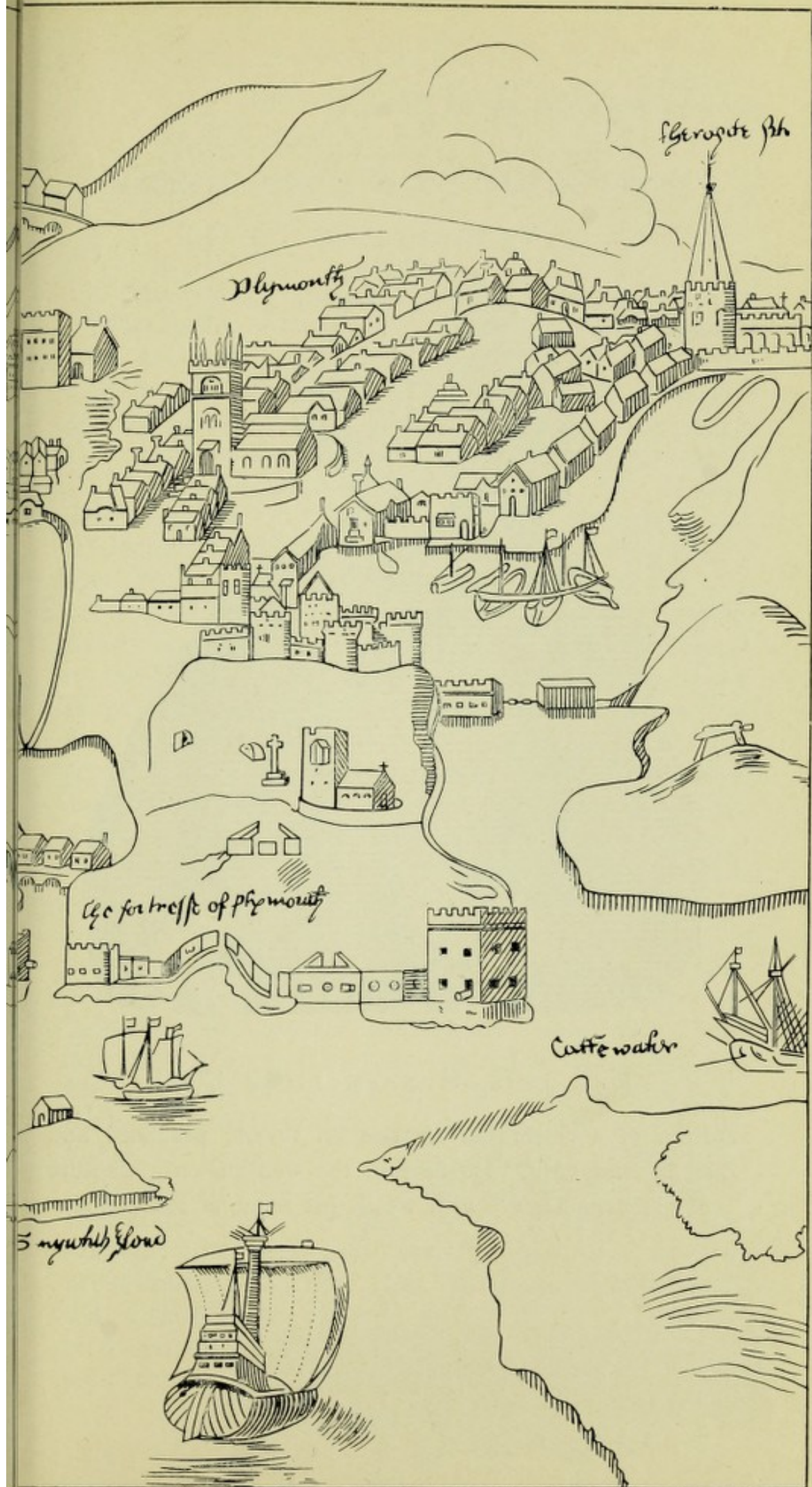
WELLCOME COLL.

/ 288

PLYMOUTH HAVEN, &c.

From a Chart drawn in the reign of K Henry VIII.
preserved in the British Museum.





Plymouth

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DR. JOHN HUXHAM (1692-1768)

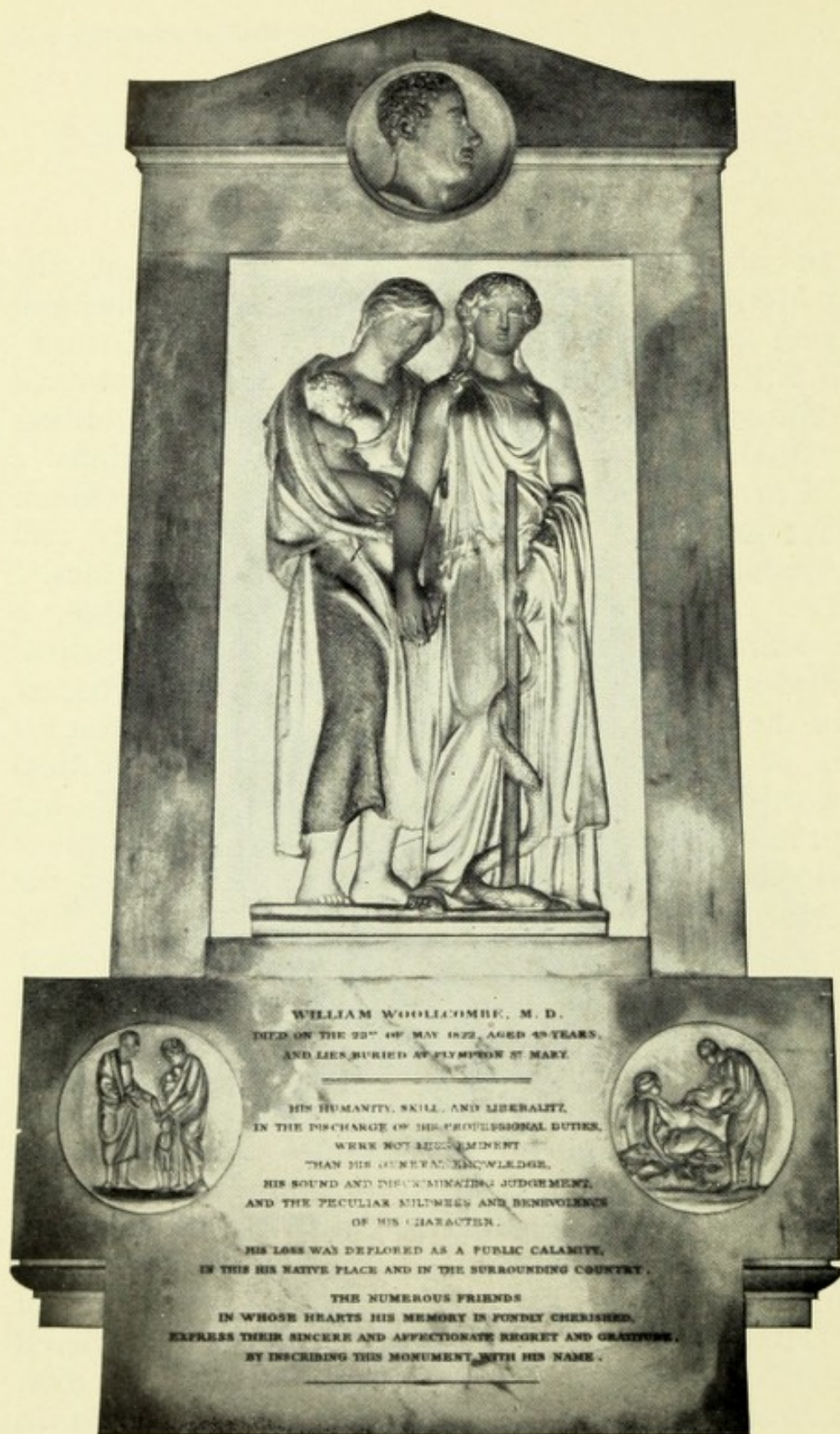
Author of a celebrated treatise on fevers, practised and died in Plymouth. He devised the well-known "tincture of cinchona bark" with which his name is associated



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SOME MEDICAL WORTHIES OF PLYMOUTH

IN the long and interesting history of the "Metropolis of the West," physicians and medical men are well represented. Dr. JAMES YONGE, F.R.S., who died in 1721, was the author of several philosophical and medical works, including "Medicaster Medicatus"; "Sidrophie Vapulans"; "Currus Triumphalis"; "Virtues of Oleum Terebinthinæ"; "Observations on Chirurgy and Anatomy"; and the "Natural Use of Cantharides." Dr. JOHN MUDGE, son of Zachary Mudge, a celebrated vicar, was the author of several medical works on such subjects as smallpox, cough, disease of the lungs, and fractures. Dr. JOHN HUXHAM is perhaps the best known of Plymouth medical worthies. He was born at Totnes in 1692, but practised and died in Plymouth. He was a pupil of Boerhaave who had studied Hippocrates in the original, made meteorological observations like Fothergill and won the Copley medal for his essay on antimony (1755). Dr. Huxham wrote a remarkable "Essay on Fevers" (1755), in which he described many infectious diseases in a careful and original way. He made a clear distinction between the "putrid malignant" and the "slow nervous" fevers, *i.e.*, between typhus and typhoid. He was the originator of "tincture of cinchona bark," a well-known galenical with which his name is associated. The original formula of "Huxham's Tincture of Bark" contained powdered Peruvian bark, orange peel, serpentary root, saffron, cochineal and brandy, and was held in great repute. In 1747, Dr. Huxham recommended that a number of sailors who had contracted scurvy, be given a vegetable diet. In his essay on malignant sore throat (1757) he observed the paralysis of



WILLIAM WOOLLCOMBE, M. D.
DIED ON THE 22ND OF MAY 1822, AGED 45 YEARS,
AND LIES BURIED AT PLYMOUTH ST. MARK.

HIS HUMANITY, SKILL, AND LIBERALITY,
IN THE DISCHARGE OF HIS PROFESSIONAL DUTIES,
WERE NOT SECOND TO
THAN HIS GENERAL KNOWLEDGE,
HIS SOUND AND DISCRIMINATING JUDGMENT,
AND THE PECULIAR MILDNESS AND BENEVOLENCE
OF HIS CHARACTER.

HIS LOSS WAS DEPLORED AS A PUBLIC CALAMITY,
IN THIS HIS NATIVE PLACE AND IN THE SURROUNDING COUNTRY.

THE NUMEROUS FRIENDS
IN WHOSE HEARTS HIS MEMORY IS FONDLY CHERISHED,
EXPRESS THEIR SINCERE AND AFFECTIONATE REGRET AND GRATITUDE,
BY INSCRIBING THIS MONUMENT WITH HIS NAME.

"MEDICINE TENDING THE POOR"

Monument by Westmacott, in St. Andrew's Church,
Plymouth, to Dr. Woollcombe. For inscription, see
opposite page

the soft palate which attends diphtheria, and which he confused with scarlatina. Devonshire colic (caused by drinking cider) was described by Dr. Huxham in 1739, but he failed to discover the cause. Dr. WILLIAM WOOLLCOMBE (1773–1822), to whom there is a monument by Westmacott in St. Andrew's Church, was the author of several medical works and was an important contributor to the last edition of Prince's "Worthies of Devon."

The following inscription on Dr. Woollcombe's monument (*see opposite page*) is of interest:—

"William Woollcombe, M.D., died on the 23rd of May, 1822, aged 49 years, and lies buried at Plympton St. Mary. His humanity, skill, and liberality, in the discharge of his professional duties, were not less eminent than his general knowledge, his sound and discriminating judgement, and the peculiar mildness and benevolence of his character. His loss was deplored as a public calamity, in this his native place and in the surrounding country. The numerous friends in whose hearts his memory is fondly cherished, express their sincere and affectionate regret and gratitude, by inscribing this monument with his name."

Dr. EDWARD MOORE wrote extensively on zoological subjects, while Mr. C. N. MOORE, also a member of the Medical Profession, was the author of several works on cancer. Sir WILLIAM SNOW HARRIS was born in 1791. After studying at Edinburgh University he became a surgeon of militia, but early turned his attention to the physical sciences. He was the inventor of the application of lightning conductors to ships, and became a Fellow of the Royal Society in 1831. Mr. JOHN PRIDEAUX became eminent as a chemist, becoming Professor of the Cornish Mining School.

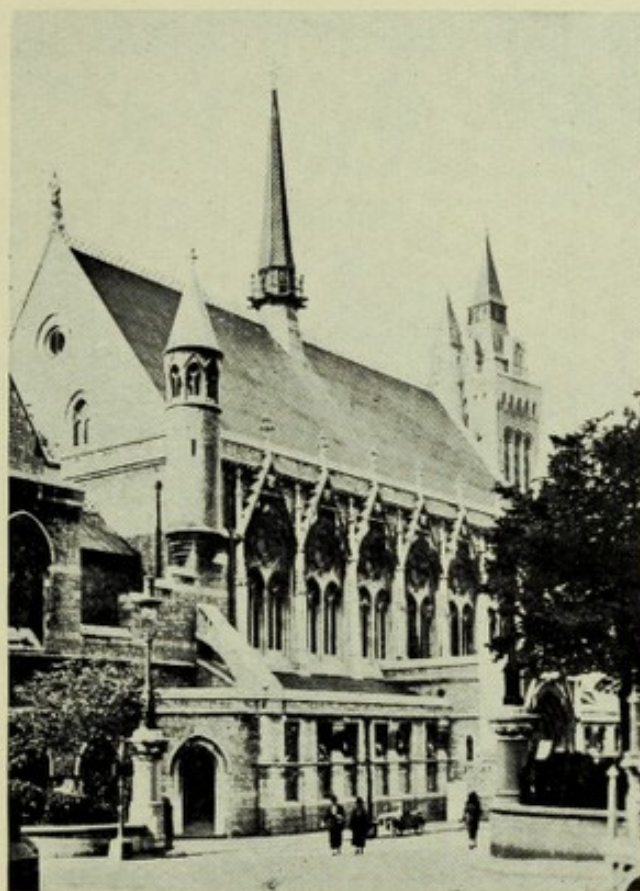
In 1871, the thirty-ninth annual meeting of the British Medical Association was held at Plymouth, Mr. J. Whipple, of Plymouth, in the chair. Contemporary reports of the meeting indicate that



DR. JOHN MUDGE

After Sir J. Reynolds. Dr. John Mudge was the son of Zachary Mudge, vicar of St. Andrew's and friend of Sir Joshua Reynolds

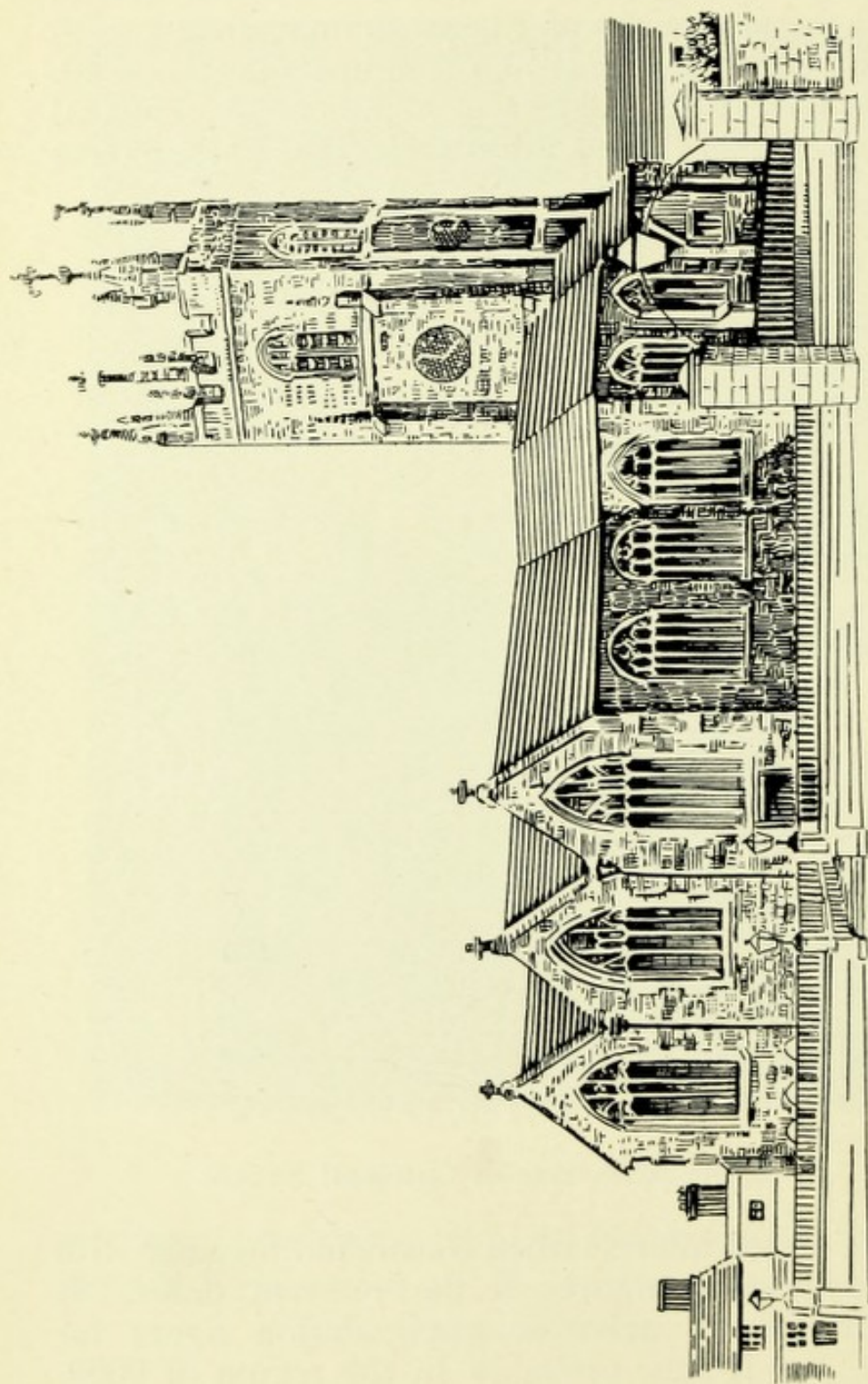
it was highly successful, both scientifically and socially. From an old directory it appears that in 1783 the physicians of Plymouth numbered 4, with 10 surgeons, etc. ; in 1870, the figures were 9 and 40, respectively; to-day, the number of medical practitioners in Plymouth is about 150. These figures



THE GUILDHALL, PLYMOUTH

On the south side of Guildhall Square

are of added interest when considered together with the population figures at the relevant dates. It is difficult to arrive at a population figure for 1783, but it was probably in the region of 9000. The figure for 1870 is more definite, being about 69,000. The present population of Plymouth is estimated at 203,600.



ST. ANDREW'S CHURCH, PLYMOUTH
From an engraving

PLYMOUTH IN HISTORY

THE origin of Plymouth lies far back in the mists of legend. That ancient Britons once inhabited the site of the present important city is abundantly proved by archæological evidence, and that they held maritime connexions with foreign states is without reasonable doubt. It is possible that the place called Tamarweorth, which was situated on the shores of Plymouth Sound in Saxon

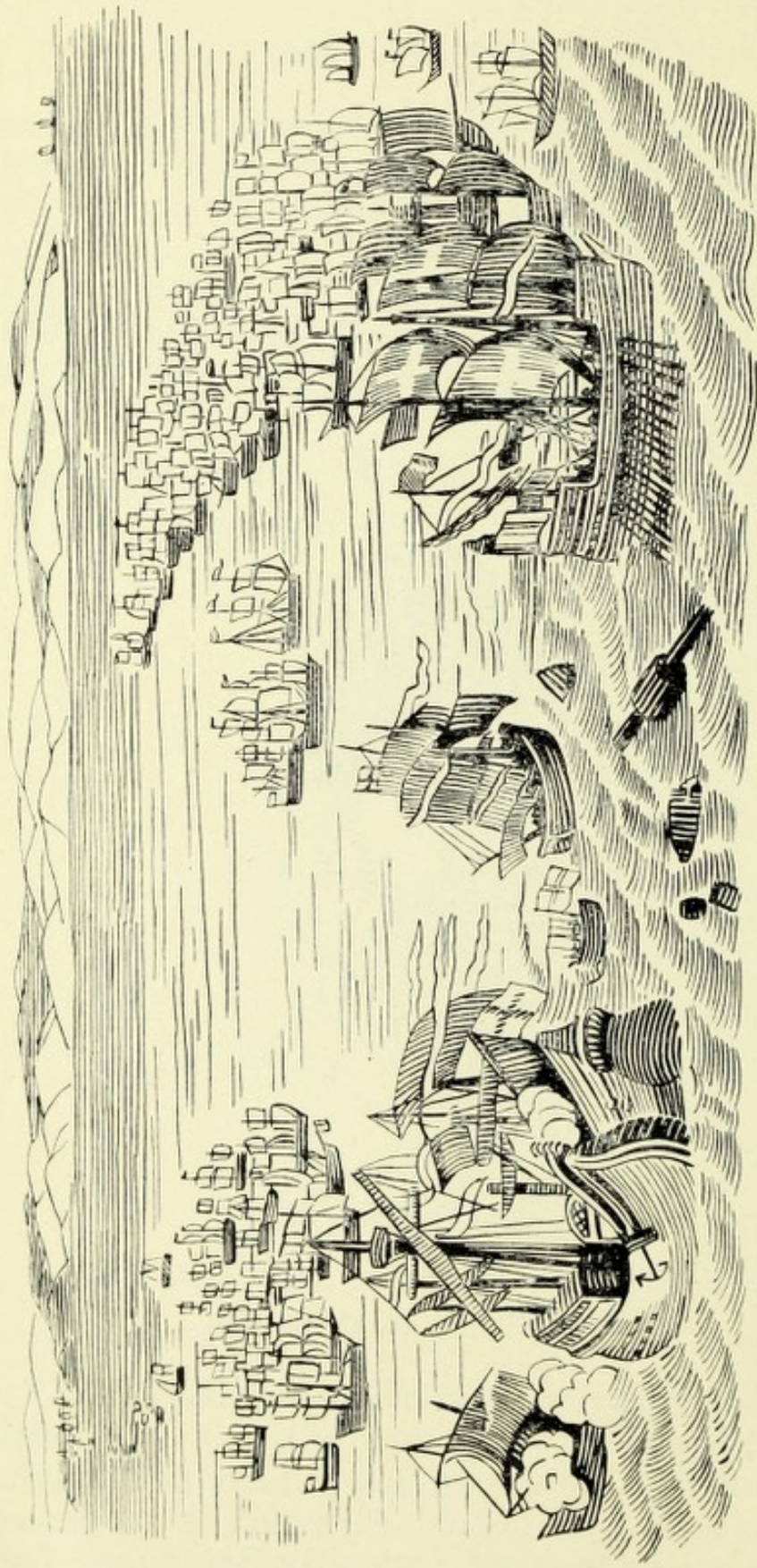


SIR JOHN HAWKINS

Famous sailor and kinsman of Sir Francis Drake

Born at Plymouth about 1532

days ("weorth" in Saxon meant a "river island"), was the forerunner of Plymouth, but it is not until the Domesday Book, compiled in 1086, that definite information can be found. Plymouth is mentioned here under the name of Sutton, or Southtown, and is described as being held by the king in demesne.



THE SPANISH ARMADA
From an old tapestry

The real influence of Plymouth on English history began some six centuries ago, when, about 1287, a fleet of more than 300 ships, commanded by the brother of the King, assembled at Plymouth for the expedition to Guienne. A few years later Plymouth sent its first deputies to Parliament, and from that time the town has been prominent in many ways. Plymouth was repeatedly the scene of attacks by the French and much damage was done.



Drake's Ship
Golden Hind

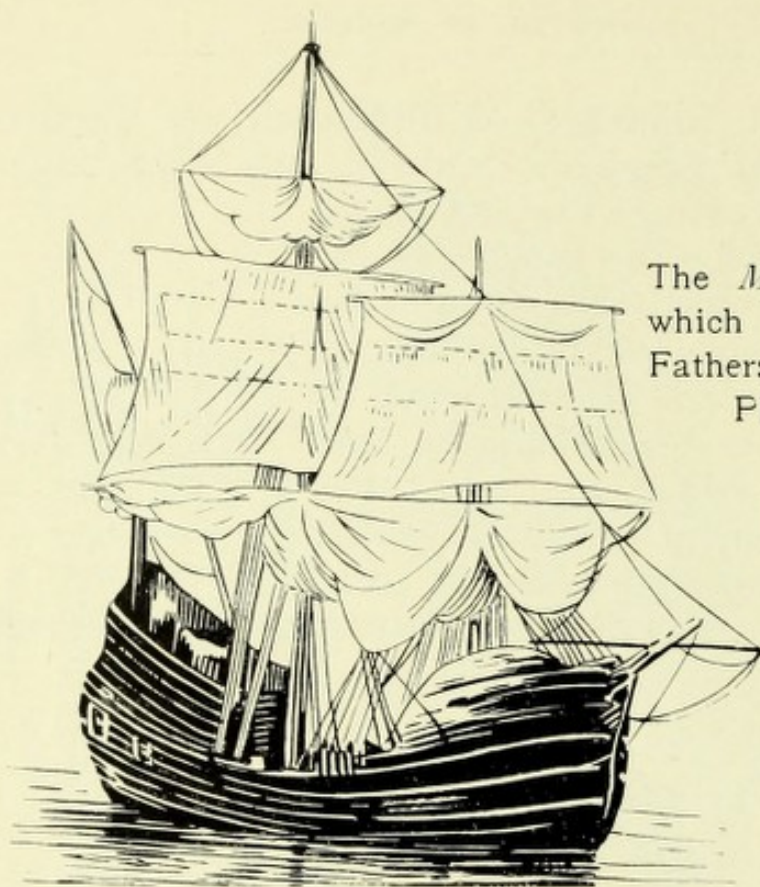


SIR FRANCIS DRAKE

Celebrated English Admiral and Mayor of Plymouth in 1581

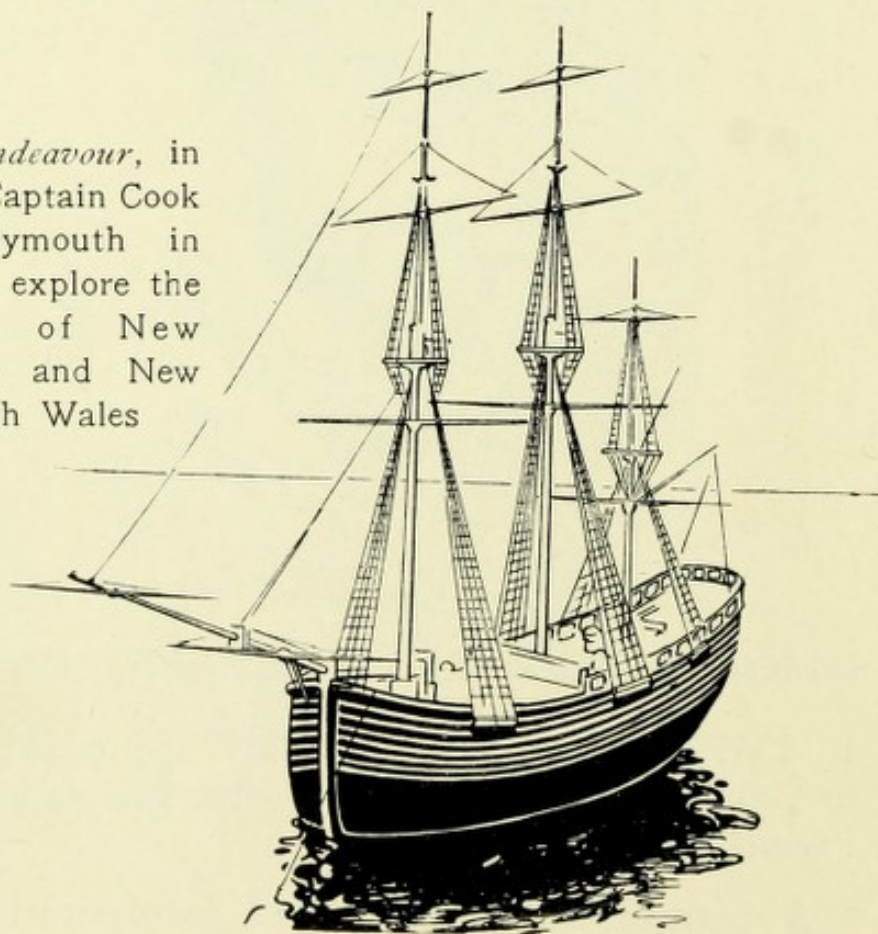
In 1347, when Edward the Black Prince laid siege to Calais, a good part of his force was supplied by Plymouth.

A petition for a charter of incorporation was successfully presented in 1439, one William Ketrich



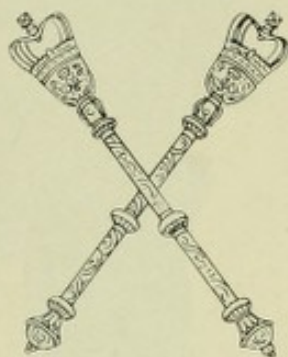
The *Mayflower*, in
which the Pilgrim
Fathers sailed from
Plymouth

The *Endeavour*, in
which Captain Cook
left Plymouth in
1768 to explore the
shores of New
Zealand and New
South Wales

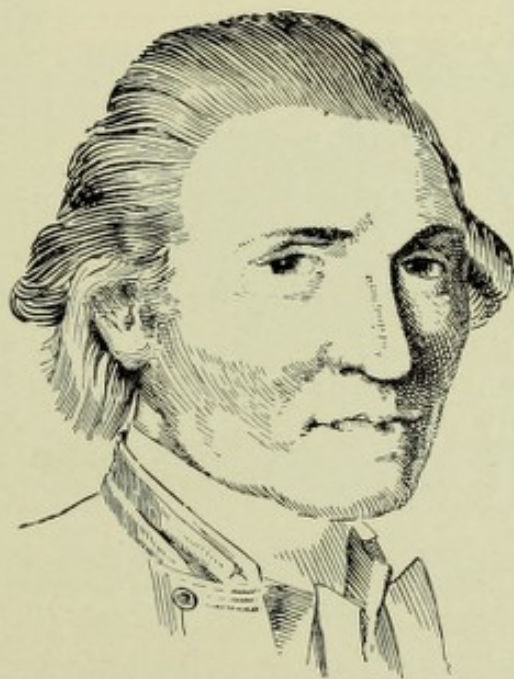


TWO FAMOUS SHIPS

being appointed the first mayor. He is said to have been a Yorkshireman, and was described as "one of the more honest and discreet men now dwelling within" the proposed boundaries. William Ketrich's chief claim to fame seems to have been on account of his mayoral feast where, it is recorded, he gave a "pye composed of all sorts of fish, flesh, and fowl, that could be gotten." This culinary achievement was said to be 14 feet long and 4 feet broad, and required a special oven for its baking.



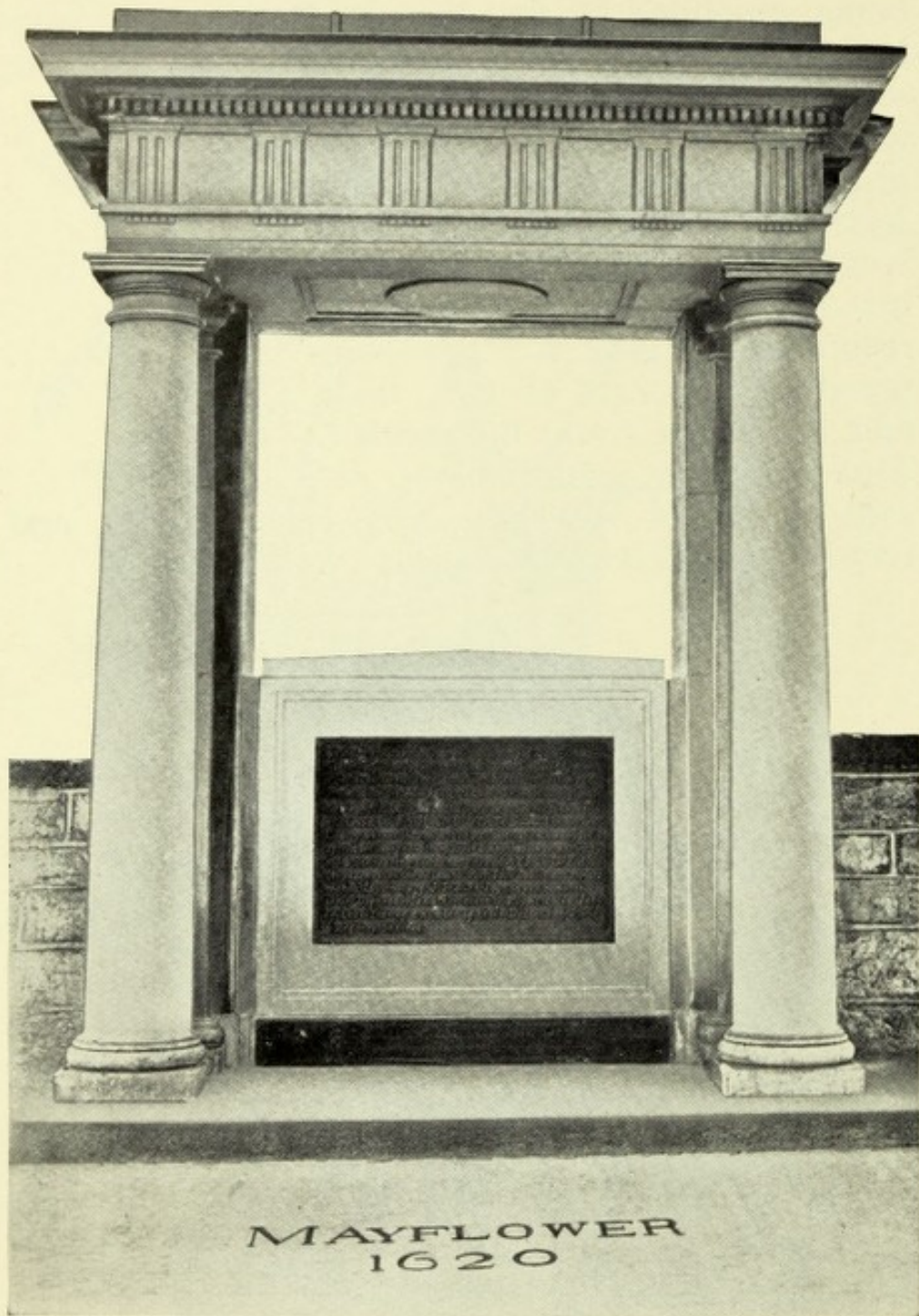
Plymouth Maces



CAPTAIN JAMES COOK

Famous English navigator and explorer

Sir Francis Drake was mayor in 1581. This celebrated English admiral, who was born at Tavistock and was therefore a Plymouthian only by adoption, was without doubt the central sea figure of his age. He was a kinsman of Sir John Hawkins, another famous sailor and native of Plymouth, and



MAYFLOWER STONE AND MEMORIAL

Marks the spot from which the *Mayflower* sailed in 1620.

For inscription on the tablet, *see opposite page.*

was associated with him in several daring enterprises. During his term of office Sir Francis Drake set up a mariner's compass on the Hoe, which was repaired in 1672, and was still in existence in 1730. It is recorded that during Drake's mayoralty, plague broke out in Plymouth, lasting a considerable time and claiming many victims. The famous game of bowls on Plymouth Hoe and the defeat of Philip's mighty Armada are great occasions of English history which come readily to mind whenever Plymouth is mentioned.



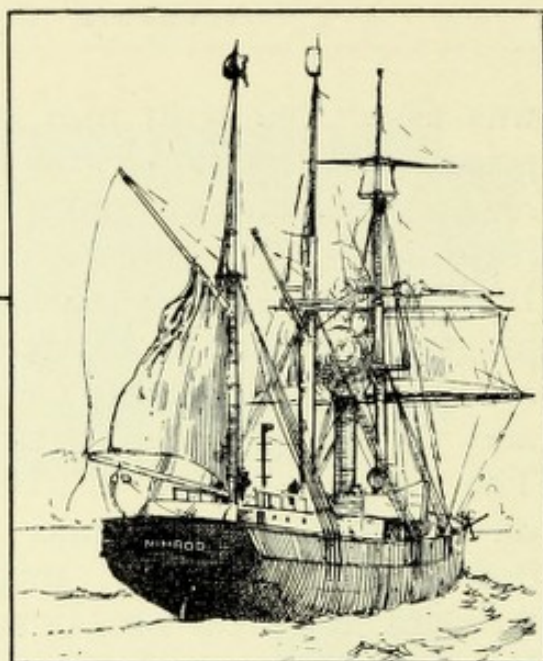
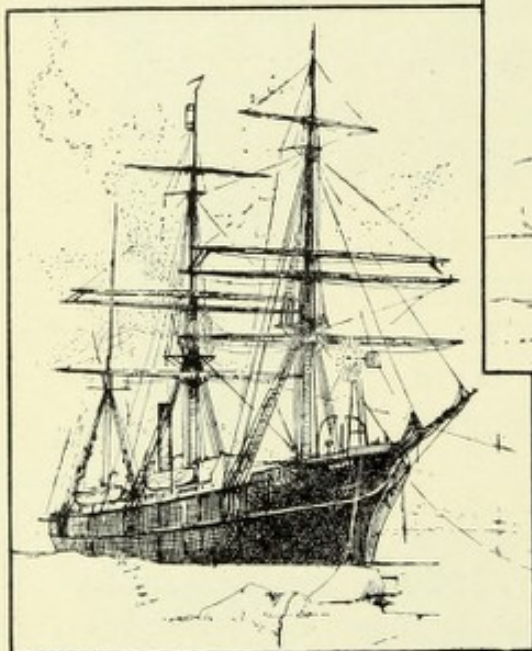
Armada Memorial, Plymouth

On the 6th of September, 1620, in the Mayoralty of Thomas Fownes, after being "kindly entertained and courteously used by divers Friends there dwelling," the Pilgrim Fathers sailed from Plymouth in the *Mayflower*, in the Providence of God to settle in NEW PLYMOUTH, and to lay the Foundation of the NEW ENGLAND STATES. The ancient Cawsey whence they embarked was destroyed not many Years afterwards, but the Site of their Embarkation is marked by the Stone bearing the name of the *Mayflower* in the pavement of the adjacent Pier. This Tablet was erected in the Mayoralty of J. T. Bond, 1891, to commemorate their Departure, and the Visit to Plymouth in July of that Year of a number of their Descendants and Representatives.

Inscription on the tablet commemorating the departure of the *Mayflower*. (See opposite page)

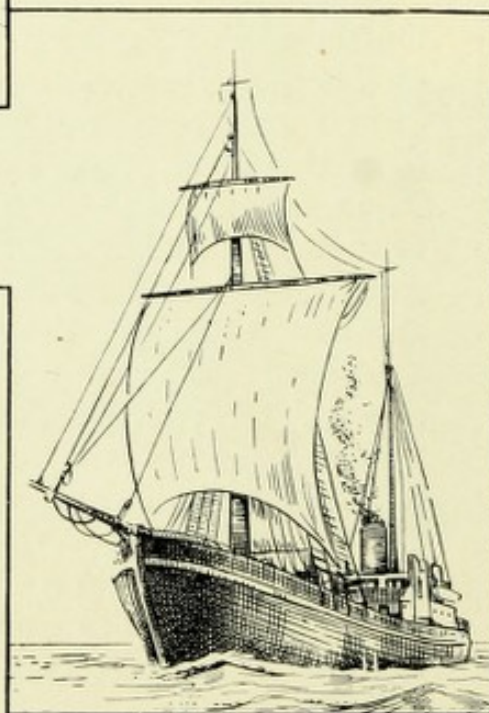
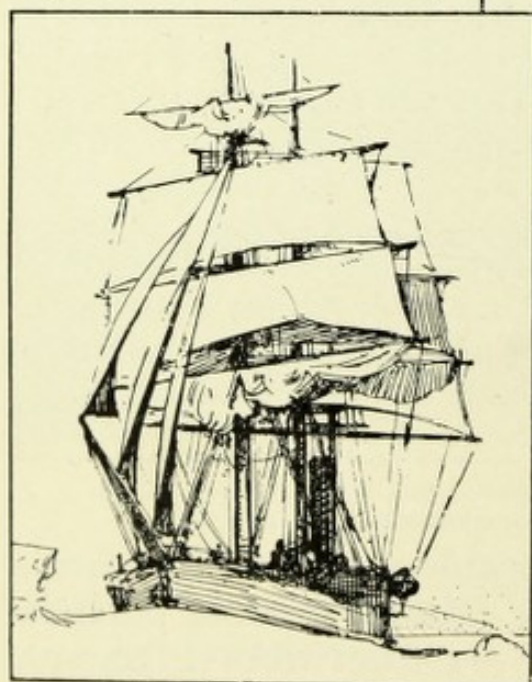
One of the most memorable years in Plymouth's history is 1620, when that faithful band of puritans—the "Pilgrim Fathers"—set out from Plymouth in search of peace and liberty which were denied them in their own country. After much hardship

Below: *Discovery*
(Captain Scott, 1901)



Above: *Nimrod*
(Sir Ernest Shackleton,
1907)

Below: *Terra Nova*
(Captain Scott, 1910)



Above: *Quest*
(Sir Ernest Shackleton,
1922)

FOUR SHIPS FAMOUS IN THE HISTORY OF
EXPLORATION

they crossed the Atlantic and, on December 21, 1620, landed on the barren shores of Massachusetts Bay to found the great Republic of the West.

Famous Expeditions

Another memorable Plymouth expedition was that of Captain Cook, who set out in 1768 in his ship, the *Endeavour*, for a voyage round the world. He explored the shores of New Zealand and New South Wales under the auspices of the Royal Society. A second expedition of Australasian discovery set out in 1772 when Cook's ship, the *Resolution*, was accompanied by the *Adventure*, commanded by Captain Furneaux. Cook's third voyage, in 1777, brought him both to Tasmania and to New Zealand.

Plymouth was also the starting point for the last expedition of the famous Antarctic explorer, Sir Ernest Shackleton. Setting out in 1922, in the *Quest*, at the head of the Shackleton-Rowett Expedition, his purpose was to cover some 30,000

miles in the South Atlantic and Antarctic. Evidently, he had contracted influenza before he left; when he reached Grytviken, a whaling point on South Georgia Island, he was seriously ill.

Sir Ernest Shackleton died in September, 1922, of angina pectoris, an aftermath of his attack of influenza, with his last task unaccomplished. It is of interest to note that



Smeaton's Lighthouse,
now on Plymouth Hoe

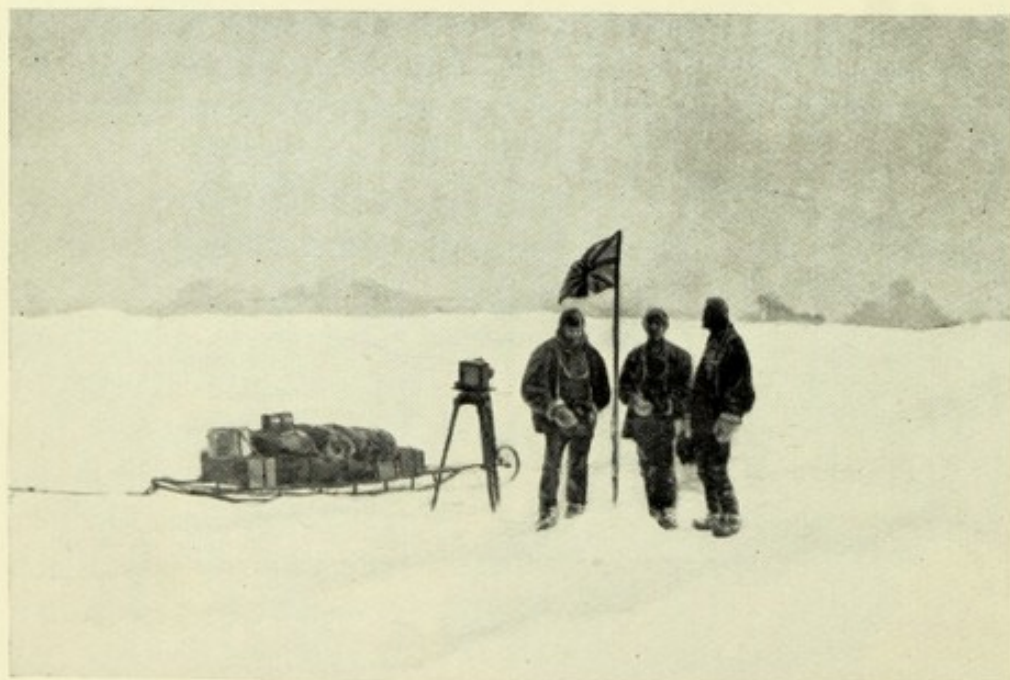


'TABLOID' FIRST-AID
Carried by Sir Ernest Shackleton



SIR ERNEST SHACKLETON

Left Plymouth in 1922 in the *Quest*
on his last expedition. He died
in September, 1922



SIR ERNEST SHACKLETON

FIRST TO REACH THE SOUTH MAGNETIC POLE
The party from the Expedition at the South Magnetic Pole

the Shackleton-Rowett Expedition was equipped with 'TABLOID' FIRST-AID EQUIPMENT, about which Mr. Frank Wild, one of the leaders of the party, wrote as follows:—

“There is little that can be said which will add to the high reputation your Products already have, and I can only repeat what has been my experience on every one of the five expeditions in which I have taken part, viz., that your equipments and products gave every satisfaction and functioned equally well in tropic heat and antarctic cold. For compactness, reliability and general usefulness, they stand in a class by themselves.”

Sir Ernest Shackleton is also remembered for his expedition of 1907, when he set sail from New Zealand in the *Nimrod*. In this expedition Shackleton beat Scott's record, reached a point 88 degrees 23 minutes south latitude and planted the Union Jack on the top of Mount Gauss, 97 miles from the South Pole. Upon his return to England, he received the honour of a knighthood. Another record made during this Expedition was that the South Magnetic Pole was reached by a party of three, amongst whom was Douglas (later Sir Douglas) Mawson, who subsequently led the Australian Antarctic Expedition, 1911, which added to the map King George V and Queen Mary Lands and accomplished very important oceanographic work. Sir Douglas expressed his “complete satisfaction with the 'TABLOID' MEDICAL EQUIPMENT which constituted the entire supply of drugs and surgical dressings.”

Shackleton's sole medical equipment on the *Nimrod*, as on his subsequent Expeditions, was a 'TABLOID' Outfit, on which he reported:—

“The British Antarctic Expedition, 1907-9, was equipped with a very complete Medical Equipment contracted for solely by Messrs. Burroughs Wellcome & Co., and consisting of 'SOLOID' and 'TABLOID' preparations, which are the only forms that can be conveniently carried and preserved under such conditions.

All the 'TABLOID' products that remain are now in as good condition as when handed over to my care two years ago."

Captain Robert F. Scott, R.N., the Antarctic explorer of undying fame, was born at Devonport. A memorial to him and his gallant companions, stands on Mount Wise, in a prominent position looking, fittingly, due South. Captain Scott was the first leader to give his life in the cause of South

Polar exploration. But this did not happen until after he had made important contributions to the knowledge of the region and had actually reached the Pole.

In 1901, Captain Scott was put in command of the Royal Geographical Society's Antarctic Expedition, sometimes known as the "Discovery" Expedition, because of the name of the doomed



Memorial to Captain Sir Robert Falcon Scott on Mount Wise



COMMANDER WILD in the crow's nest of the *Quest* (Shackleton-Rowett Expedition)

ship that was crushed by the ice. In three years, Scott got farther than any other explorer up to that time. He passed the easternmost point attained by Sir James Ross in 1841. Then he crossed the great Ice Barrier which Ross had discovered, and found that in 60 years it had crept 30 miles south. On and on, beyond the Barrier, he went. Scott's great journey took him

380 miles towards the Pole, to the record latitude of

82 degrees 17 minutes south. Then he discovered King Edward VII Land, and, with his dog teams, he trekked over glacier-covered Victoria Land. Scott, before he started, had been well grounded in the



'TABLOID' MEDICINE CASE

Carried by CAPTAIN SCOTT to the South Pole
and found in the tent in which he died

principles of organisation for Polar adventure. He took with him a 'TABLOID' MEDICAL EQUIPMENT. A report was received from the President of the Royal Geographical Society which read:—

“The Medical Equipment of the Exploring Ship of the National Antarctic Expedition was entirely supplied by Messrs. Burroughs Wellcome & Co., and proved in every way most satisfactory.”

“The few other drugs and preparations which were taken with the Expedition were only supplied for purposes of experiment, and can in no way be regarded as part of the medical equipment.”

Dr. Edward A. Wilson, Scott's medical officer, who was also in charge of some of the dog sledge trips made from the *Discovery*, added the following:—



Photograph by Mr. H. G. Ponting, F.R.P.S.

CAPTAIN SIR ROBERT FALCON SCOTT, R.N.,
C.V.O., D.Sc., F.R.G.S.
(1868-1912)

South Pole, January 17, 1912

“Though there was but little serious illness on the *Discovery* during the recent Antarctic Expedition, the ‘Tabloid’ preparations and the cases were put to a fairly rigorous test, not only in the ship, but on the various sledge journeys that were undertaken, during which they experienced temperatures as low as 68° below zero, and much rough handling, without any loss in efficiency and usefulness. Certain of the ‘Tabloid’ Ophthalmics were freely used for snow-blindness, and were found to be most convenient.”

Captain Scott was the first Englishman to reach the South Pole, which he did on January 17, 1912, only four weeks after Amundsen. He had made the longest continuous sledge journey in history, having covered 1842 miles. On the return, Scott and his four heroic companions succumbed. His last diary, telling the epic story of the fight against a nine days’ blizzard with only two days’ supply of food and fuel, was found in his tent, eight months later, together with a ‘TABLOID’ MEDICINE CASE.

The final entry in Captain Scott’s diary, dated March 29, 1912, read as follows:—

“We had fuel to make two cups of tea apiece and bare food for two days on the 20th. Every day we have been ready to start for our depot eleven miles away, but outside the door of the tent it remains a scene of whirling drift. I do not think we can hope for any better things now. We shall stick it out to the end, but we are getting weaker, of course, and the end cannot be far.

“It seems a pity but I do not think I can write more.”

Scott's achievements were no less great because he did not live to hear the plaudits of his fellow-men of all nations. The splendour of his courage, pain endured without murmur, death faced without flinching, adds glory to the record of his work for exploration and science.

It is of interest to note that Mr. H. G. Ponting, the Photographic Officer of this Expedition, developed all his negatives in the Antarctic with 'TABLOID' 'RYTOL' DEVELOPER.

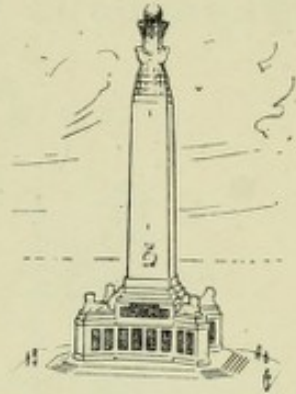
PLYMOUTH OF TO-DAY

THE public buildings of Plymouth are in harmony with the city's great history. The Guildhall, for example, is in early-pointed style, while nearby is the fifteenth-century Prysten House, built by the Priors of Plympton.

Plymouth is rightly proud of its famous Hoe. Tradition has it that the Hoe was the scene of a deadly conflict between Corinaeus, one of the chiefs of the Trojan party, and the giant Gogmagog. It is said that the "high rock" upon which Gogmagog met his doom was the Hoe. The Hoe is about a quarter of a mile in length and overlooks the whole of the Sound on one side; few cities, indeed, are the possessors of so fine a promenade.

A notable point of interest to visitors is Smeaton's Lighthouse which, after over a century's service as guardian of the Eddystone Rock, was re-erected on the Hoe as a lasting memorial to the genius of its builder. The first lighthouse erected on the Eddystone Reef was commenced in 1696 and completed in 1700. It was destroyed in 1703 by the great storm which passed over the country in that year. Of the second lighthouse, completed in 1709, and

burned down in 1755, it is recorded that during efforts to extinguish the flames, one of the light-keepers swallowed a large quantity of molten lead. Despite this accident the victim managed to remain alive for a few days. An interesting story describing the patient's condition and efforts to save his life, may be read in Jewitt's "History of Plymouth," 1873.



The Naval War Memorial
on Plymouth Hoe

One of the characteristics of Plymouth is its exceptional variety of interesting monuments and relics of the past. The "Three Towns" is a veritable paradise to the antiquary whose visit, however long, can never adequately cover all there is to be seen.

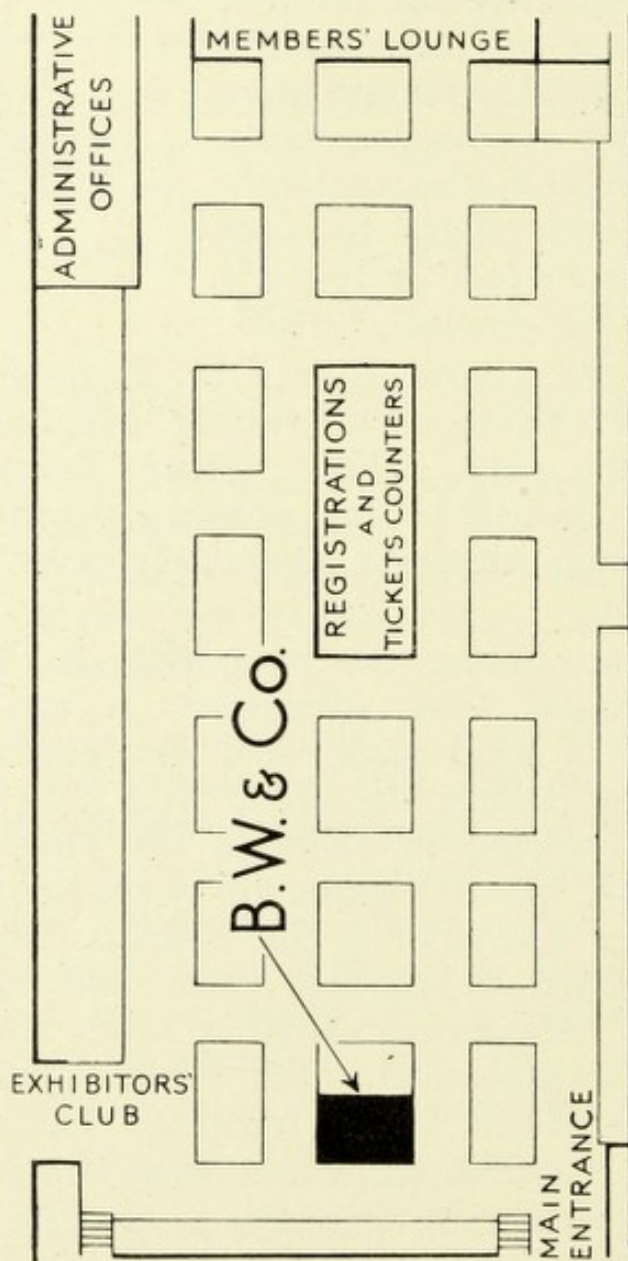
Prominent among the memorials at Plymouth are the Naval War Memorial, a tall column in memory of local naval men who gave up their lives at sea during the Great War; the Armada Memorial, erected in 1888 on the Hoe near the scene of the historic game of bowls; a statue on the Hoe in memory of Sir Francis Drake; the recently-erected Mayflower Stone and Memorial, inscribed "Mayflower 1620"; and the Royal Marine War Memorial. The Royal Citadel is of particular interest, the building having been completed in 1670, in which year it was visited by Charles II.

The Marine Biological Laboratory, situated near the Citadel, is the headquarters of the Marine Biological Association of the United Kingdom; the Laboratory was opened in 1884.

To see Plymouth and to study its past, is to gain a better understanding of the essentials of English history.

BURROUGHS WELLCOME & CO. EXHIBIT

PLYMOUTH



Plan of the B.M.A. Exhibition, Drill Hall of the 5th Devon Regiment, Millbay, Plymouth, showing position of the Burroughs Wellcome & Co. Exhibit.

DIGITALIS

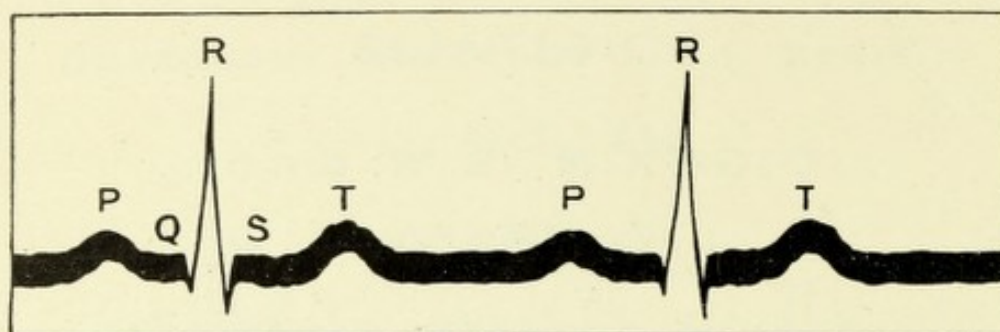
DIGOXIN (B. W. & CO.)

(Under British Patent)

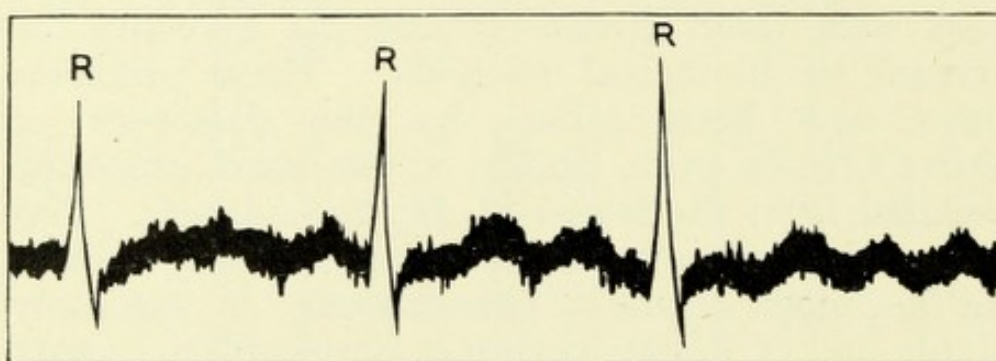
A pure digitalis glucoside

THE disadvantages of digitalis preparations in the past were their instability and the necessity for control by biological methods. These problems have now been solved by the discovery of DIGOXIN, a pure, stable, crystallized glucoside isolated from the leaves of *Digitalis lanata*. The unbounded advantages of a medicament which, unlike most digitalis preparations, is definitely stable and of known chemical composition, cannot be over-emphasised. Not only is biological standardisation of DIGOXIN unnecessary, but the effects produced by its administration are uniformly reliable and rapid.

The value of DIGOXIN was established by clinical trials conducted under the auspices of the Therapeutic Trials Committee of the Medical Research Council. DIGOXIN is therefore offered to the medical profession with the advantages of authoritative clinical evidence in its favour. The glucoside may be used whenever digitalis is indicated; it produces rapid and consistent effects in the treatment of auricular fibrillation, and causes a rapid fall in ventricular rate. It reduces congestion in patients suffering from congestive cardiac failure and auricular fibrillation, and promotes diuresis when œdema is present. DIGOXIN acts rapidly when given by mouth. Given intravenously, it produces the effect of digitalis almost at once.



NORMAL ELECTRO-CARDIOGRAM



ELECTRO-CARDIOGRAM OF AURICULAR FIBRILLATION

In the upper illustration the first wave P is due to the contraction of the auricles and the succeeding complex QRST results from the contraction of the ventricles.

The rhythm is regular, the R deflections being of equal height and separated by equal intervals.

In the lower electro-cardiogram the auricle does not contract and the P waves are therefore absent. Diastole is occupied by the irregular oscillations of the fibrillating auricle.

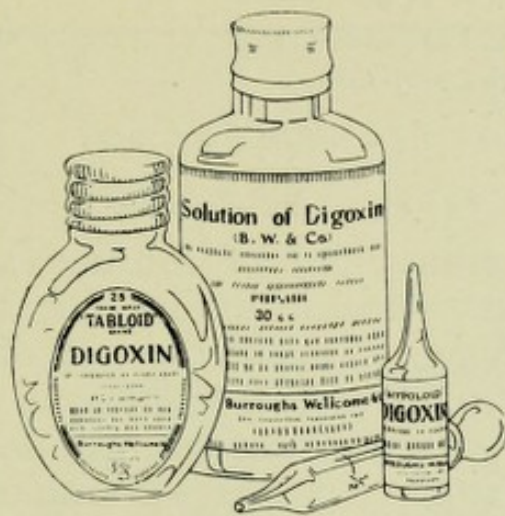
The rhythm is completely irregular, both in time and force, the ventricular complexes being separated by irregular intervals and the R deflections of varying amplitude.

Administration and Dosage

Except in cases where oral administration is contra-indicated or when extremely rapid action is required, DIGOXIN acts in most cases sufficiently quickly when given by mouth.

The dose, by mouth, for adults weighing 140 lb. (65 kg.) or over, is 1.5 mgm., provided that no

member of the digitalis group has been given recently. For lighter patients, or for patients who have been under digitalis therapy during the preceding fortnight, the dose should be



Reduced facsimiles

1 mgm. to 1.25 mgm. After six hours, further doses of 0.25 mgm. should be given every six hours until the ventricular rate lies between 60 and 70. The

average dose to maintain this level is 0.5 mgm. per day and is best given in divided doses.

Intravenously, single doses of from 0.75 mgm. to 1 mgm. cause a rapid fall in ventricular rate, beginning five to ten minutes after the mid-point of injection, and reaching full extent after one to two hours. The full fall in rate after injection of 1 mgm. of DIGOXIN is usually 30 beats per minute, but this varies from case to case. Intravenously, 1 mgm. has the same effect as 1.5 mgm. by mouth.

DIGOXIN is a pure substance of known and definite composition, and is often preferred in clinical practice to any other member of the digitalis group.

Preparations

TRADE MARK 'TABLOID' BRAND DIGOXIN, 0.25 mgm.

[SEE LIST B. W. & Co.]

Prices in London: Bottles of 25 (1/4) and 100 (4/4) per bottle

DIGOXIN, SOLUTION OF (B. W. & Co.), 0.5 mgm. in 1 c.c.

[SEE LIST B. W. & Co.]

Prices in London: Bottles of 10 c.c. (2/0), 30 c.c. (each with Pipette) (3/6) and 250 c.c. (24/0) per bottle

TRADE MARK 'HYPOLOID' BRAND DIGOXIN, 0.5 mgm. (gr. 1/130 approx.), in 1 c.c. [SEE LIST B. W. & Co.]

Price in London: Boxes of 10 'Hypoloid' ampoules, at 3/4 per box

For particulars of *Digitalis purpurea* products, see
Wellcome's Medical Diary

TANNIC ACID
 TRADE MARK 'TANNAFAX' BRAND
 TANNIC ACID JELLY

(See pages 2 and 3 of inset)

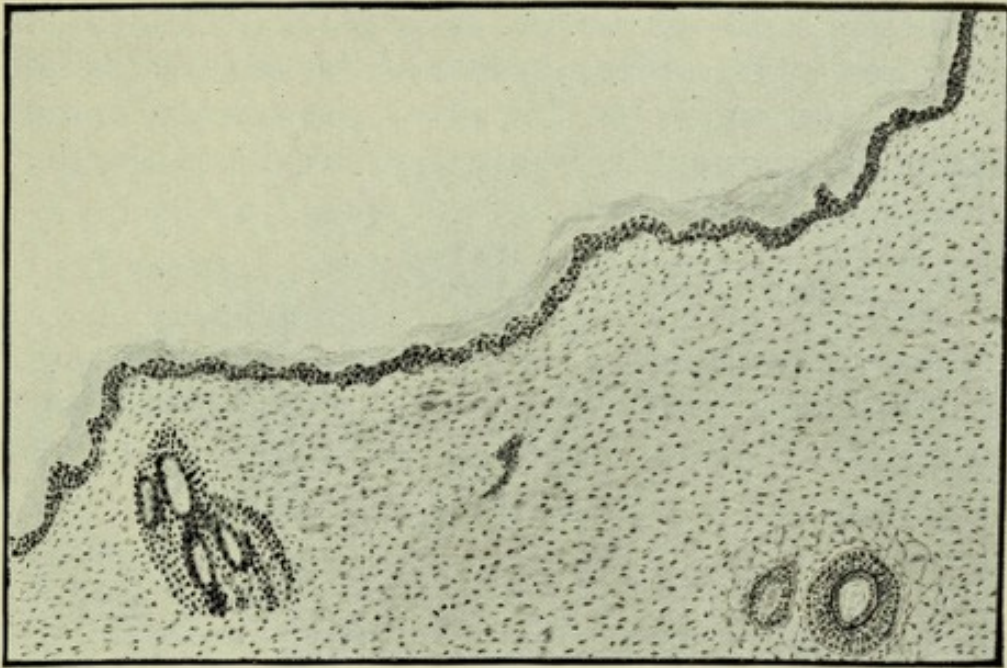
*For the modern treatment of
 burns, scalds and abrasions*

MANY substances or combinations of substances have been used from time to time in the treatment of burns and scalds, but none has stood the test of time so well as the simple application of tannic acid. Many centuries ago the physicians of China recommended the application to burns of tannic acid in the form of tea, and it is a fact that this remedy is in use in many parts of the world to-day. 'TANNAFAX' presents tannic acid in a water-soluble, antiseptic base. It can easily be removed if necessary. 'TANNAFAX' is non-oily and non-greasy, and, in virtue of its non-greasy consistency, is of particular value when repeated dressings are necessary. It may be used to treat burns and scalds of every type; mild degree and extensive burns, as well as electrical and chemical burns, all respond to treatment. 'TANNAFAX' is of particular value in cases of serious burns which will require hospital treatment, as its removal can be effected without the pain associated with oily or greasy preparations. 'TANNAFAX' is an excellent preparation for treating small burns, such as frequently occur in the home.

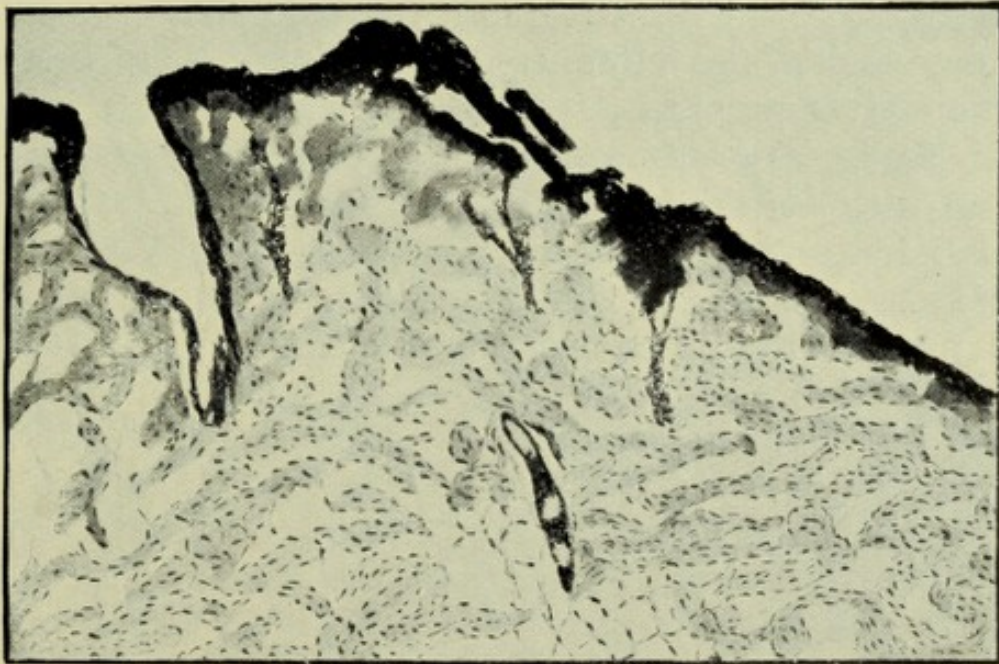


Reduced facsimile

In the treatment of face-burns, especially when extensive, 'TANNAFAX' should be used in preference to tannic acid spray, which, on account of the spreading, often endangers the eyes.



1. Microscopic picture of normal skin: hair follicles intact.



2. Microscopic picture of adjacent area of skin from same subject following a severe burn. The epidermis is completely destroyed, the dermis contracted and torn, and the hair follicles ruptured and distorted. Note rearrangement of nuclei.

'TANNAFAX' is also of value in the treatment of superficial wounds and abrasions, such as those following road accidents, and in the treatment of bedsores. In order to avoid the possibility of locking up anærobic bacteria, the affected areas should be thoroughly cleansed, preferably with ether soap, before the application of the 'TANNAFAX.'

Preparation

TRADE MARK 'TANNAFAX' BRAND TANNIC ACID JELLY

[SEE LIST B. W. & Co.]

(Tannic Acid, with 0.5 per cent. Phenol, in a water-soluble base)

Prices in London: Collapsible tubes of 20 gm. (3/4 oz. approx.) (0/8) and 4 oz. (113 gm. approx.) (2/1) per tube

VITAMIN B₁

TRADE MARK 'RYZAMIN-B' BRAND

RICE POLISHINGS CONCENTRATE

A Valuable Dietary Adjunct

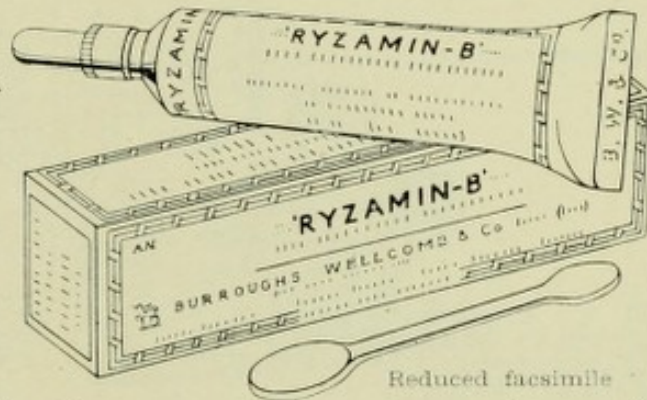
THE importance of Vitamin B₁ as an essential constituent in the national diet is adequately recognised. Unfortunately, there appears to be some lack of this vitamin, due, no doubt, to modern methods of preparing staple foodstuffs.

'RYZAMIN-B' presents the concentrated and purified vitamin-containing fraction of rice polishings (recognised as a rich source of Vitamin B). It has a potency of not less than 50 International Units of Vitamin B₁ per gramme and by its use it is possible to add to the diet an adequate supply of the anti-neuritic factor in a relatively small bulk. Vitamin B₁ is stated to promote appetite, to aid digestion and to bring about increased tonicity and absorptive powers of the digestive tract; it stimulates the general metabolic processes, promoting growth, and acts as a valuable prophylactic against polyneuritis. Further, it is stated to be necessary for normal reproduction and lactation. Severe Vitamin B₁ deficiency, such as occurs in beri-beri,

sprue, polyneuritis and allied conditions, presents definite and readily recognisable symptoms; when the deficiency is mild or partial, however, the signs are much less marked and their significance may not be apparent.

A diet deficient in the anti-neuritic vitamin is more serious in children than in adults by reason of the child's lowered capacity for tissue-storage of vitamin reserve, and greater need for ample supplies to meet growth requirements. In children of school age, in particular, there is evidence that shortage of Vitamin B₁ can be a factor in limiting the growth.

It has been stated that the polyneuritis of pregnancy is probably a dietary deficiency disorder similar to beri-beri, and that large doses of Vitamin B₁ concentrate are indicated. Further, it has been suggested that very large doses of potent Vitamin B₁ preparations are of use in the peripheral neuritis of chronic alcoholics.



'RYZAMIN-B' is of unquestionable value in cases where wholemeal bread is omitted from the diet.

'RYZAMIN-B' is a clear, golden-brown, syrupy preparation which is palatable and readily taken by children. The consistently high Vitamin B₁ potency is assured by biological test. The product is issued in collapsible metal tubes (with nozzle) of 15 grammes and 100 grammes.

Preparation

TRADE MARK 'RYZAMIN-B' BRAND RICE-POLISHINGS CONCENTRATE
[SEE LIST B. W. & Co.]

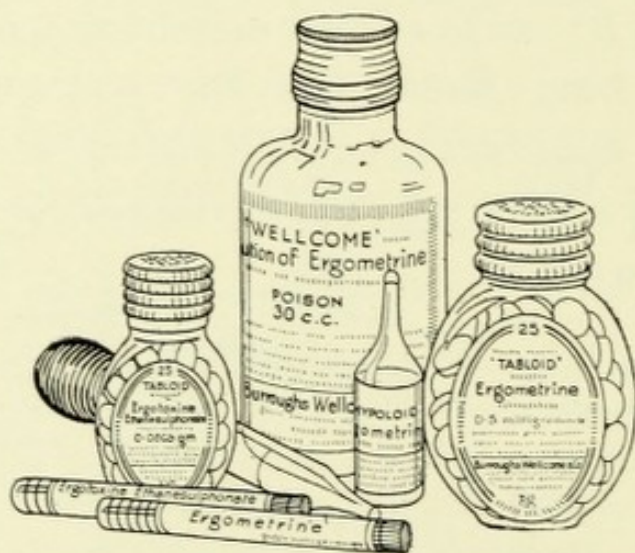
Prices in London: Collapsible tubes of 15 grammes (1/2 oz. approx.) (1/10) per tube, and of 100 grammes (3-1/2 oz. approx.) (10/0) per tube

A special measuring spoon is issued with each tube

ERGOMETRINE

A rapidly-acting ergot alkaloid

THE introduction of Ergometrine in 1935 represented the greatest step forward in the history of ergot since 1906, when the alkaloid ergotoxine was isolated. The crystalline alkaloid Ergometrine is aptly described as the constituent to which ergot—the “pulvis parturiens” of physicians and midwives since the sixteenth century—owes its introduction into medicine.



Reduced facsimiles

Ergometrine is characterised by the rapidity with which it causes contraction of the uterus, and it is used clinically for this effect during the puerperium. It checks post-partum hæmorrhage and is remarkably free from side effects.

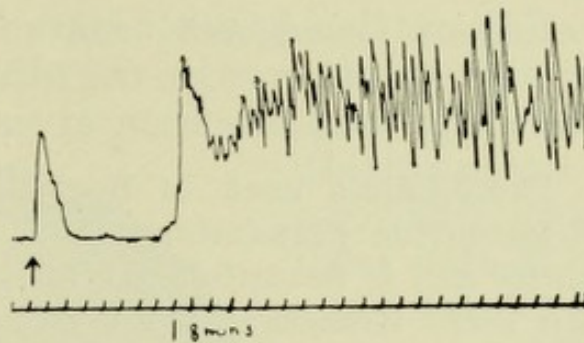
Dosage and Action

To ensure full therapeutic effect, it is recommended that for administration by the mouth, the dose of Ergometrine should be 0.5 mgm. to 1 mgm. This dose produces contraction of the uterus after an interval of $6\frac{1}{2}$ to 8 minutes, the contractions being identical in mode of onset and general character with those produced by active liquid extracts of ergot. For intramuscular injection, the

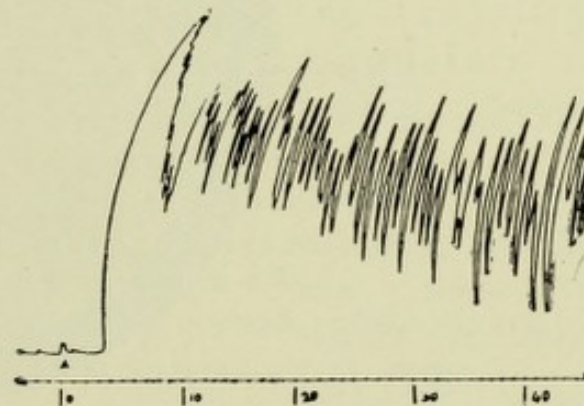
dose should be not less than 0.5 mgm., strong uterine action being produced in $3\frac{1}{2}$ to $4\frac{1}{2}$ minutes. Intravenously, the dose should be not less than 0.125 mgm., when a strong response follows within one minute.

The accompanying kymographic tracings, taken during original work on the alkaloid, illustrate the action of Ergometrine on the human uterus when used in effective doses.

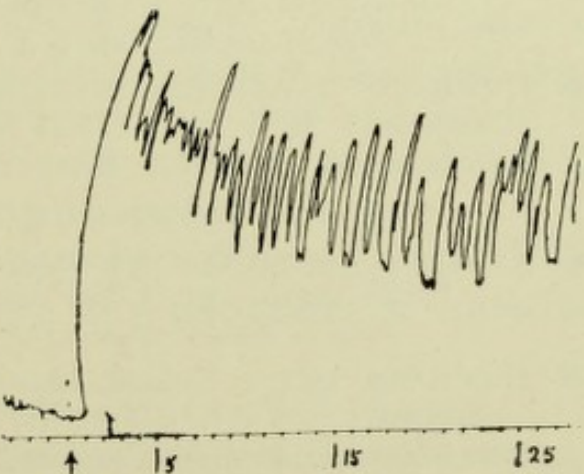
Ergometrine
0.5 mgm.
orally :
Effect in $6\frac{1}{2}$ to
8 minutes



Ergometrine
0.5 mgm.
intramuscularly :
Effect in $3\frac{1}{2}$ to
 $4\frac{1}{2}$ minutes



Ergometrine
0.15 mgm.
intravenously :
Effect in less than
1 minute



Owing to its rapidity of action, Ergometrine is of particular value for oral administration after parturition. The effect, although probably not quite so prolonged as that produced by ergotoxine, lasts for three to four hours.

Further, Ergometrine, when given intravenously in an effective dose, *i.e.*, 0.125 mgm., has been suggested as a useful means of treatment of post-partum hæmorrhage.

Ergometrine, given intravenously, is of value in a majority of cases in arresting a migraine attack. It is also effective when given by the mouth.

The alkaloid used in Burroughs Wellcome & Co. Ergometrine preparations is of the highest degree of purity and is beautifully crystalline. It is free from the inert isomeride Ergometrinine. Administration of the pure alkaloid is the only safe method of giving a known, adequate dose.

Preparations

FOR ORAL ADMINISTRATION:

TRADE MARK 'TABLOID' BRAND ERGOMETRINE, 0.5 mgm. (gr. 1/130 approx.) [SEE LIST B. W. & Co.]

Price in London: Bottles of 25, at 5/6 per bottle

TRADE MARK 'WELLCOME' BRAND SOLUTION OF ERGOMETRINE, 0.5 mgm. in 2.5 c.c. [SEE LIST B. W. & Co.]

Price in London: Bottles of 30 c.c. (with Pipette), at 4/6 per bottle

FOR INTRAMUSCULAR INJECTION:

TRADE MARK 'TABLOID' BRAND HYPODERMIC ERGOMETRINE, 0.5 mgm. (gr. 1/130 approx.) [SEE LIST B. W. & Co.]

Price in London: Tubes of 12, at 2/9 per tube

TRADE MARK 'HYPOLOID' BRAND ERGOMETRINE, 0.5 mgm. (gr. 1/130 approx.), in 1 c.c. [SEE LIST B. W. & Co.]

Price in London: Boxes of 10 'Hypoloid' ampoules, at 6/0 per box

FOR INTRAVENOUS INJECTION:

TRADE MARK 'TABLOID' BRAND HYPODERMIC ERGOMETRINE, 0.125 mgm. (gr. 1/500 approx.) [SEE LIST B. W. & Co.]

Price in London: Tubes of 12, at 1/6 per tube

TRADE MARK 'HYPOLOID' BRAND ERGOMETRINE, 0.125 mgm. (gr. 1/500 approx.) in 1 c.c. [SEE LIST B. W. & Co.]

Price in London: Boxes of 10 'Hypoloid' ampoules, at 4/0 per box

MANDELIC ACID

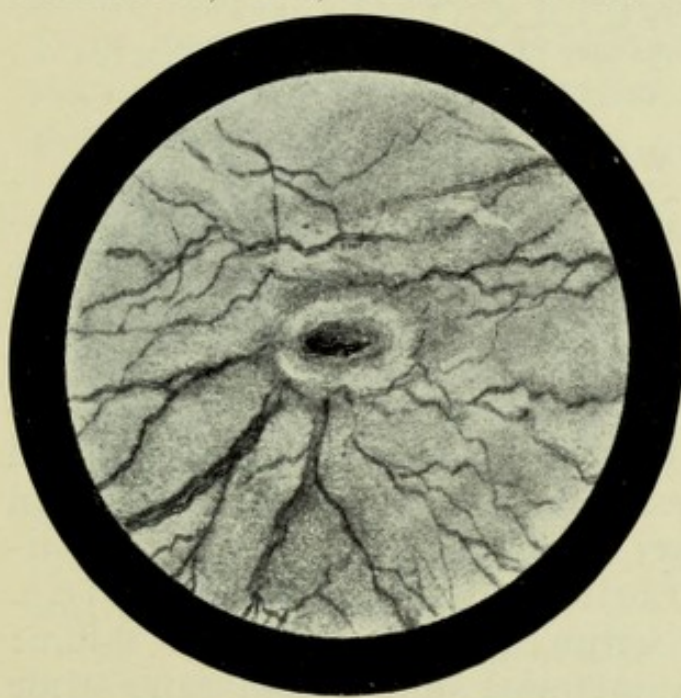
TRADE MARK 'WELLCOME' BRAND

CALCIUM MANDELATE COMPOUND

In urinary tract infections

THE introduction of calcium mandelate, the outcome of investigations extending over a number of years, is a marked advance in the treatment of urinary infections.

Calcium mandelate has been found to be as effective therapeutically as sodium or ammonium mandelate, and, since it is free from many of the



CYSTITIS

Showing congestion of the submucosa

disadvantages associated with these salts, it is now the preparation of choice. In the stomach the calcium mandelate is broken down, forming mandelic acid and calcium chloride, most of which is converted into non-absorbable calcium salts in the intestine. Part of the calcium is absorbed, thus lessening the acidifying effect, but the urine is rendered sufficiently acid by free mandelic acid which is excreted unchanged.

The calcium salt has the advantage that it is tasteless and gives rise to a minimum of digestive disturbances.

'WELLCOME' BRAND CALCIUM MANDELATE COMPOUND is issued as a suitably flavoured powder.

It has not the disagreeable taste characteristic of sodium or ammonium mandelate. It is not soluble in water, but readily forms a suspension. An outstanding advantage of the 'Wellcome' Brand product is its ready miscibility.

Preparation

TRADE MARK 'WELLCOME' BRAND CALCIUM MANDELATE COMPOUND
[SEE LIST B. W. & Co.]

A measure and test papers are provided

Price in London: Amber-coloured bottles of 125 grammes at 10/10 per bottle

REFINED DIPHTHERIA
ANTITOXIN

TRADE MARK 'WELLCOME' BRAND
REFINED DIPHTHERIA ANTITOXIN—
GLOBULINS

An improved product

REFINED DIPHTHERIA ANTITOXIN is produced by methods which are improvements on those hitherto in use for Concentrated Antitoxin, and is available to the Medical Profession as 'WELLCOME' REFINED DIPHTHERIA ANTITOXIN—GLOBULINS. For same number of units, refined serum contains less than half the amount of protein present in ordinary Concentrated Diphtheria Antitoxin. As 4000 Ehrlich units are contained in 1 c.c. or less of *refined* serum the reduction in the volume to be injected is material and at the same time the protein is reduced to a fraction of that in a corresponding dose of *unconcentrated* serum, or of the concentrated antitoxin hitherto in use.

Experience at present available suggests that Refined Diphtheria Antitoxin is much less likely to cause serum sickness, rashes, etc., than Concentrated Diphtheria Antitoxin. Although refined antitoxin contains so little protein, this, like all proteins derived from horse serum, is liable to cause anaphylactic shock in those very rare people who are highly sensitive to horse serum. The proportion

of these sensitive people in the general population has been quoted as about one in fifty thousand; certain figures suggest that it is probably nearer one in half a million. Nevertheless, the possibility of anaphylactic shock must be borne in mind. The only available precaution, when using serum of any kind, is to test all patients for sensitivity beforehand. This should be done by injecting, by the route chosen for the administration of the main dose, a minute quantity of serum. Thus, if the intravenous route is to be used, 0·1 c.c. or 0·5 c.c. of a 1:10 dilution of serum in sterile saline may be injected half-an-hour beforehand. If no respiratory or other disturbances occur, the main dose of serum may be slowly given.

Dosage

In the treatment of urgent cases a dose of 10,000 to 40,000 units should be administered intravenously. If intravenous injection is not possible the serum may be given intramuscularly or subcutaneously in doses of not less than 8000 units in a case of moderate severity, and 20,000 to 50,000 units at least in more severe cases. These doses should be given irrespective of age.

As a prophylactic measure 1000 units of the antitoxin may be given.

Preparations

TRADE MARK		‘WELLCOME’ BRAND REFINED DIPHTHERIA		ANTITOXIN—GLOBULINS			
				<i>Prices in London</i>			
				<i>Each</i>			
<i>Germ-proof containers</i>							
Containers of	500 Ehrlich Units			in	...	...	1/6
.. ..	1000			1 c.c.	...	...	2/0
.. ..	2000			or	...	...	3/3
.. ..	4000			less	...	...	6/0
.. ..	5000			4000	...	...	7/6
.. ..	6000			Units	...	...	8/9
.. ..	8000			or	...	...	9/6
.. ..	10,000			more	...	...	11/6
.. ..	20,000			per	...	...	21/6
.. ..	40,000			c.c.	...	...	40/0

(Concentrated Diphtheria Antitoxin—Globulins is still available)

For other Therapeutic Sera, Vaccines and Tuberculins, see special literature

INSULIN

TRADE MARK 'WELLCOME' BRAND

INSULIN

Made with pure crystalline insulin

THIS means that for the 'WELLCOME' product a standard of purity has been set which can only be met by the employment of Crystalline Insulin. Every batch is biologically standardised at The Wellcome Physiological Research Laboratories, Kent, the method employed being approved by the Medical Research Council, to which body a sample of each batch is submitted. No batch is issued until the Council's certificate of approval is obtained.

'WELLCOME' INSULIN conforms to the Therapeutic Substances Act (Great Britain), 1925 (1931 Regulations). It is free from all extraneous protein matter. 'Wellcome' Insulin contains the minute amount of antiseptic considered by leading bacteriologists to be essential in Insulin as a protection against accidental septic contamination, particularly when Insulin is used by patients themselves. This addition, now official, has been made to 'Wellcome' Insulin ever since this product was issued.



Reduced facsimile

Method of Administration

'WELLCOME' INSULIN is administered by subcutaneous injection, the skin being first sterilised. The site chosen may be the upper part of the arm, thigh, or other suitable part of the body. Injection should be made deeply into the subcutaneous tissue

and not into the skin itself. The 'AGLA' INSULIN SYRINGE or the 'AGLA' INSULIN TWO-PIECE SYRINGE in spirit-tight container, fitted with 'AGLA' needles, are the most convenient instruments for routine injection. Where larger quantities are required, a 2 c.c. or 5 c.c. 'AGLA' ASEPTIC SYRINGE may be used.

Preparations

TRADE MARK 'WELLCOME' BRAND INSULIN [SEE LIST B. W. & Co.]

Rubber-capped amber-glass phials containing 100, 200 or 400 International Units in 5 c.c. and 200 International Units in 10 c.c.

Prices in London: Phials of 100 International Units in 5 c.c. (1/6); 200 International Units in 5 c.c. (2/10); 400 International Units in 5 c.c. (5/6); and 200 International Units in 10 c.c. (2/10) per phial

TRADE MARK 'TABLOID' BRAND HYPODERMIC INSULIN HYDROCHLORIDE (*Sterile*). Each product presents a dose of 10 International Units [SEE LIST B. W. & Co.]

No. 150. Cartons containing 10 products in ONE tube.

The only British Insulin issued as a compressed product.

Price in London: 1/6 per carton

TRADE MARK 'WELLCOME' BRAND

PROTAMINE INSULIN (WITH ZINC)

—SUSPENSION

AS AN alternative to or in association with unmodified insulin in the treatment of diabetes. Owing to the low solubility of the compound in the subcutaneous tissue fluids, the blood-sugar lowering action is more prolonged, in some cases for as long as two days, and undue fluctuations in blood-sugar level are less liable to occur; further, because of its slower and less violent action, hypoglycæmia is less likely to ensue.

It is usual to administer sufficient Protamine Insulin (with Zinc) to maintain the patient on a single daily dose. The amount usually administered varies between 20 and 60 units, half to one-and-a-half hours before breakfast. About two-thirds the number of units necessary daily to maintain the patient sugar-free when using unmodified insulin should be administered as an initial dose. If it is

desirable to administer Protamine Insulin (with Zinc) in the evening, the daily requirement may be given one hour before the evening meal or one hour before retiring. As it may not be possible in some cases to provide adequate control with one dose of Protamine Insulin (with Zinc) daily, it may be advantageous to give two doses a day, morning and evening, three-quarters of the daily requirement being given one hour before breakfast and the remainder one to two hours before retiring.

It is now a common practice to mix, in a syringe, Protamine Insulin (with Zinc) and unmodified Insulin in correct proportions and to give them in one injection. Care must be taken to prevent contamination of the unmodified Insulin with protamine.

'WELLCOME' BRAND PROTAMINE INSULIN (WITH ZINC)—SUSPENSION is a sterile aqueous suspension specially prepared for hypodermic injection. It conforms to the requirements of the Therapeutic Substances Act (Great Britain), 1925, and contains 0·2 per cent. Trikresol as a preservative.

Preparation

TRADE MARK 'WELLCOME' BRAND PROTAMINE INSULIN (WITH ZINC)—
SUSPENSION [SEE LIST B. W. & Co.]
40 units and 80 units per c.c.

Prices in London: 40 Units per c.c.: phials of 5 c.c. (2/4), and 10 c.c. (4/6) per phial; 80 Units per c.c.: phials of 5 c.c. (4/6) per phial

SULPHANILAMIDE

SULPHONAMIDE-P

(See page 1 of inset)

A chemotherapeutic triumph

FEW discoveries have aroused such widespread interest as the recently-introduced chemotherapeutic compounds for the treatment of hæmolytic streptococcal and other infections. The discovery in 1935

that two azo dyes prevented the development of streptococcal septicaemia in mice was followed by the announcement that the dyes contained an active nucleus now known as sulphanilamide. This chemotherapeutic substance is presented as 'TABLOID' SULPHONAMIDE-P for oral administration and as 'WELLCOME' SULPHONAMIDE-P for oral or parenteral use. It has been demonstrated that the administration of sulphanilamide by mouth makes the blood of animals and man bactericidal to streptococci. Clinical evidence is available so far of the usefulness of sulphanilamide in streptococcal, meningococcal, gonococcal and urinary tract (*B. coli*) infections in man. The bacteriostatic action of the drug is most effective on hæmolytic streptococci, meningococci, and gonococci. The drug appears to have little value in *Streptococcus viridans* infection.

TREATMENT OF MENINGOCOCCAL INFECTION IN MICE BY SULPHONAMIDE-P

No. OF ORGANISMS INJECTED INTRA- PERITONEALLY WITH MUCIN		DEATHS IN ONE WEEK (10 MICE IN EACH GROUP)
100	Controls	7
10,000	"	10
1,000,000	"	10
100,000,000	"	10

	Treated by 25 mgm. Sulphonamide-P given orally immediately, 5 hours and 24 hours	
10,000	later	0
1,000,000	"	1
100,000,000	"	0

The above Chart shows the results of treating meningococcal infection in mice by Sulphonamide-P administered orally. It will be seen that under optimal conditions Sulphonamide-P protects against a million minimal infecting doses of meningococci.

Sulphanilamide has been used in puerperal septicaemia, scarlet fever, erysipelas and various other streptococcal infections. In scarlet fever it has little or no action on the primary disease, although it may be effective in certain of the septic complications. The use of sulphanilamide in meningococcal infections is now justified. Treatment by mouth seems to be the most satisfactory method, as it has been shown that, when the drug is so administered, the concentration in the cerebro-spinal fluid is almost as high as that in the blood. In gonococcal infections, although experience has been brief, it is thought that the drug will be of great value. Cases have been reported in which sulphanilamide has been used in efforts to sterilise the genito-urinary tract with considerable success in *B. coli*, and other infections, including *Proteus ammoniæ*. It is held that the drug produces a bactericidal effect in the urine for all organisms except *Streptococcus faecalis*. It is probably worth trying the effect of sulphanilamide on cases of staphylococcal septicaemia, as it has been shown that mice infected with a small number of virulent staphylococci can be so cured. The therapeutic effect obtained, however, is less than that in streptococcal infections. Sulphanilamide has been found to be of value in certain cases of gas-gangrene and experiments suggest that it may have a favourable influence in *Brucella abortus* (of Bang) infection.

For precautions, contra-indications and dosage, see special literature

Preparations

TRADE MARK 'TABLOID' BRAND SULPHONAMIDE-P, 0.5 gramme [SEE LIST B. W. & Co.]

(For Oral administration)

Prices in London: Bottles of 25 (1/4) and 100 (4/0) per bottle

TRADE MARK 'WELLCOME' BRAND SULPHONAMIDE-P [SEE LIST B. W. & Co.]

(For Parenteral or Oral administration)

Prices in London: Bottles of 25 gm. (1/9) and 100 gm. (5/6) per bottle



Reduced facsimiles



HÆMOLYTIC
STREPTOCOCCI
IN PUS

SULPHONAMIDE-P (SULPHANILAMIDE)

TRADE MARK 'TABLOID' BRAND SULPHONAMIDE-P
For Oral administration

TRADE MARK 'WELLCOME' BRAND SULPHONAMIDE-P
For Parenteral or Oral administration

(See opposite)

TRADE
MARK

'TANNAFAX' BRAND

TANNIC ACID JELLY

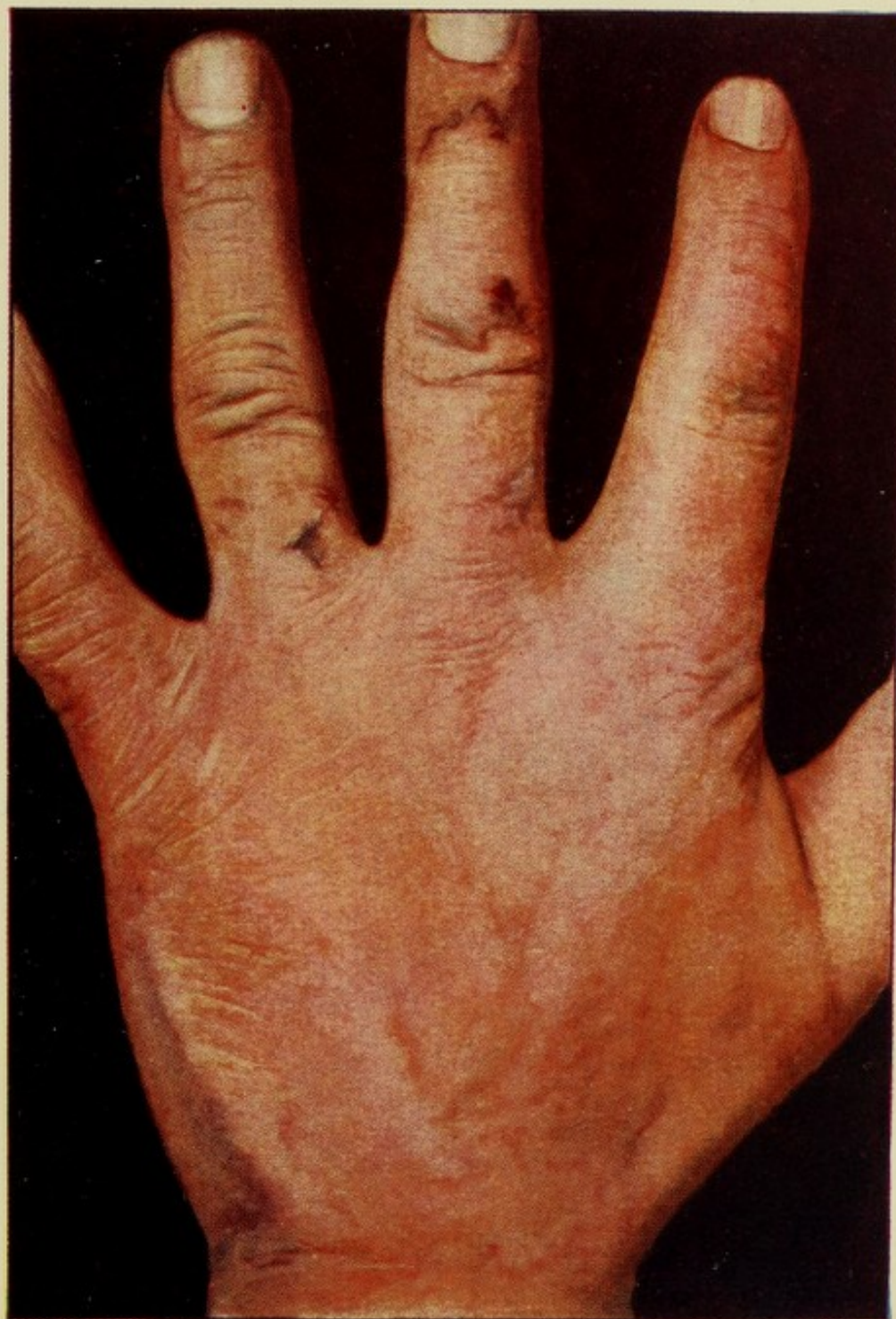
FOR BURNS, SCALDS
AND ABRASIONS



Illustration taken from an actual photograph of an
electrical burn of the hand



Reduced facsimile



The same burn after eighth day of treatment with
'TANNAFAX'

(See page 30)



BURROUGHS
WELLCOME
& Co.

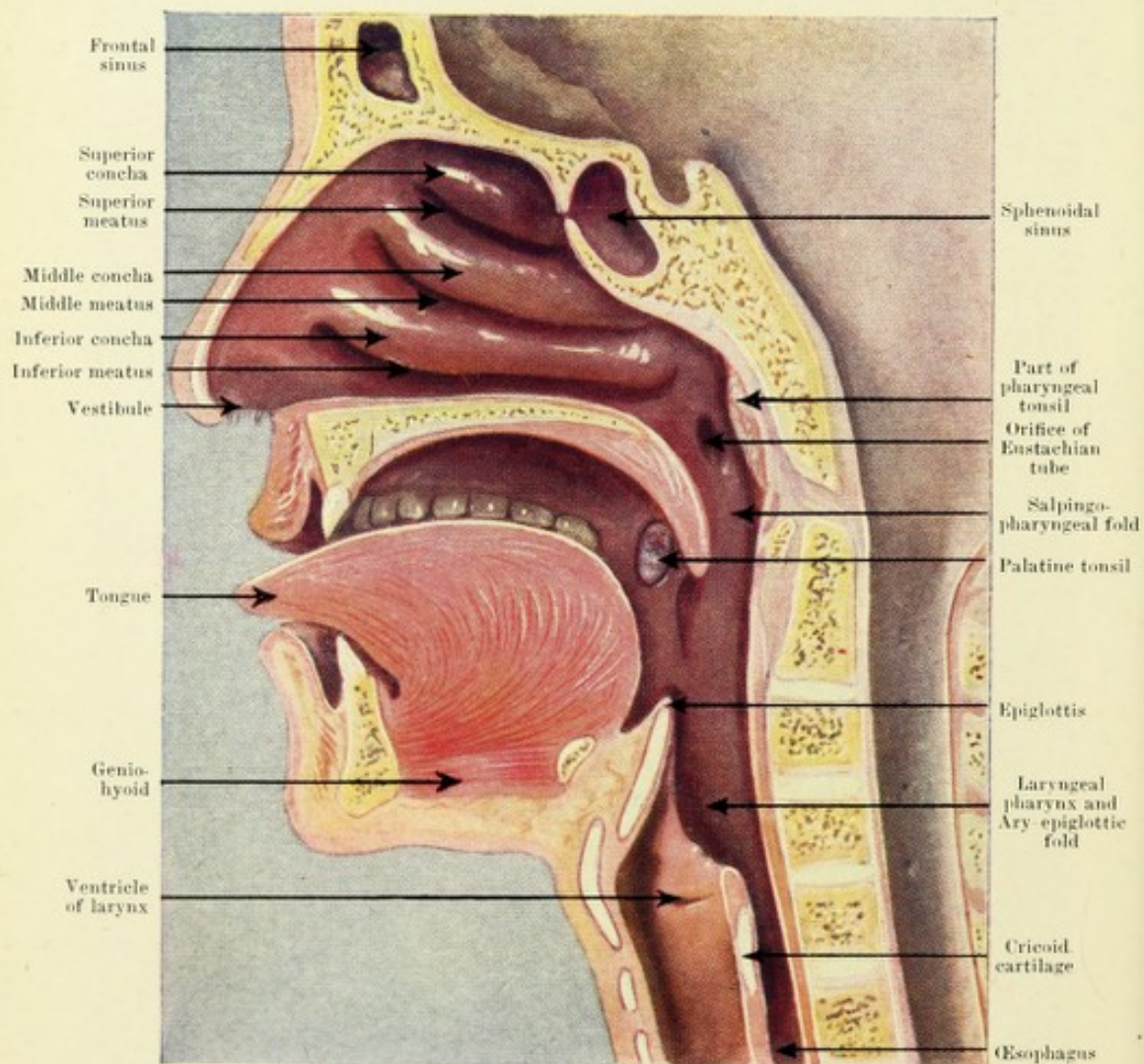
EPHEDRINE
PRODUCTS

(See opposite)

Made from the
genuine

Reduced facsimiles

NATURAL EPHEDRA—Ma Huang

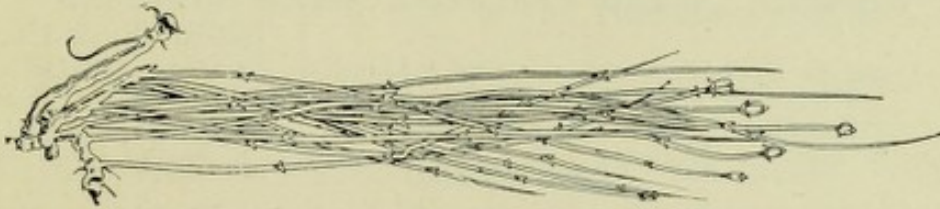


Sagittal section through the mouth, nasal fossa, larynx
and pharynx

EPHEDRINE

*(See page 4 of inset)**From natural Ephedra—Ma Huang*

EPHEDRINE may be described as an old remedy in a new guise. The herb from which the alkaloid is obtained—Ephedra or Ma Huang—was known to the ancient Chinese as a diaphoretic and antipyretic. The action of ephedrine resembles that of adrenaline, but is less powerful, although more prolonged. Applied to mucous membrane,



EPHEDRA—MA HUANG

Ephedrine causes blanching, not so intense as that caused by adrenaline, but more enduring. Ephedrine is indicated in asthma, when the prolonged broncho-dilator action relieves the attacks. It is of particular value in hay fever, and in other allergic conditions such as urticaria, angio-neurotic œdema, in the skin reaction which sometimes follows the administration of sera, and in congestive migraine. Ephedrine has also proved to be of value in mild to moderate cases of whooping-cough.



Reduced facsimile

Ephedrine may also be found useful in some cases of chronic hypotension, in the nerve pains of leprosy, in anterior rhinoscopy, for its pressor action in spinal anæsthesia, and in enuresis.

Preparations

TRADE MARK 'TABLOID' BRAND EPHEDRINE HYDROCHLORIDE,
gr. 1/4 (0.016 gm.); gr. 1/2 (0.032 gm.); and 0.03 gramme
[SEE LIST B. W. & Co.]

Prices in London: gr. 1/2, tubes of 6, at (0/6) per tube, bottles of 25 (1/3) and 100 (3/9) per bottle; gr. 1/4, bottles of 25 (0/10) and 100 (2/6) per bottle; 0.03 gm., bottles of 25 (1/3) and 100 (3/9) per bottle

TRADE MARK 'HYPOLOID' BRAND EPHEDRINE HYDROCHLORIDE,
0.03 gramme (gr. 1/2 approx.), in 1 c.c. [SEE LIST B. W. & Co.]

Price in London: Boxes of 10 'Hypoloid' ampoules, at 3/2 per box

TRADE MARK 'ELIXOID' BRAND EPHEDRINE COMPOUND
[SEE LIST B. W. & Co.]

A pleasantly-flavoured preparation containing Ephedrine Hydrochloride, gr. 1/4; Syrup of Tolu, min. 15; Tincture of Virginian Prune, min. 2 and Chloroform, min. 1/8 in each fluid drachm.

Prices in London: Bottles of 4 fl. oz. (2/3) and 16 fl. oz. (7/6) per bottle

TRADE MARK 'VAPOROLE' BRAND EPHEDRINE SPRAY COMPOUND
[SEE LIST B. W. & Co.]

Contains Ephedrine, 0.9 per cent.; Menthol, Camphor and Oil of Thyme, of each 0.5 per cent., in a base of 'Paroleine' Liquid Paraffin.

Prices in London: Bottles of 1 fl. oz. (with dropper) (2/3) and 16 fl. oz. (27/0) per bottle

Burroughs Wellcome & Co. Ephedrine Products are made from the genuine NATURAL Ephedra—Ma Huang. The ample supplies of Burroughs Wellcome & Co. Ephedrine products make it unnecessary to prescribe artificial ephedrine.

HYDNOCARPUS OIL

TRADE 'EULYKOL' MARK

PHENYLETHYL ESTERS OF A SELECTED FRACTION OF THE ACIDS OF HYDNOCARPUS OIL—SOMETIMES DESIGNATED "PHENYLETHYL HYDNOCARPATE"

For the treatment of Lupus Vulgaris

IN the treatment of lupus vulgaris it has been shown clinically that hydnocarpus esters are effective in quickly clearing up the "patches" of the treated areas. 'EULYKOL' is usually administered by intradermal injection. The whole patch may be infiltrated or the nodules may be infiltrated on their posterior margin. The lupus nodules slough out, in some cases leaving small pits which eventually heal up until no signs of the nodules are visible.

LUPUS VULGARIS



Lesion before treatment

Lesion after treatment with
Phenylethyl Hydnicarpate

In order to avoid the chance of causing irritation, no antiseptic has been added to this material. Rigid aseptic precautions are necessary when extracting doses. 'EULYKOL' can be sterilised by heat (Oily Solutions—B.P.—150° C. for 1 hour), but care must be taken that no water becomes mixed with it before or during sterilisation.

Preparation

TRADE 'EULYKOL' MARK [SEE LIST B. W. & Co.]

Price in London: Bottles of 25 c.c., at 5/0 per bottle

A USEFUL HÆMOSTATIC

TRADE MARK 'STYPVEN' BRAND

RUSSELL VIPER VENOM

(NOT FOR INJECTION)

RECENT investigation has shown that even a very dilute solution of Russell Viper Venom has hæmostatic properties which are of great use clinically. 'STYPVEN' presents Russell Viper Venom in the most convenient form.

The external bleeding which usually occurs in hæmophilics after the extraction of teeth may now be controlled and the extraction undertaken with reasonable safety. Since many of these patients

have badly septic teeth, it is advisable, and often necessary, to keep them under treatment or in hospital for a week or more in order to clean the mouth before extraction.

'STYPVEN' acts as a hæmostatic in any external wounds suffered by a hæmophilic.

It has also been found that, apart from hæmophilics, a considerable number of patients bleed more profusely than usual after the extraction of teeth. With patients of this kind the application of a pledget soaked in 'STYPVEN' solution immediately after extraction leads to rapid cessation of the bleeding.

Further, 'STYPVEN' solution, applied on a plug, may help materially in stopping troublesome bleeding in conservative dental surgery at the gum margin, *e.g.*, fillings below the edge of the gum. It has been suggested that if 'STYPVEN' solution will not control the bleeding, a combination of the solution and adrenaline should be used. In epistaxis the application of a pledget soaked in 'STYPVEN' solution is often effective in arresting the bleeding.



Reduced facsimile

A number of clinicians have described the successful application of 'STYPVEN' after tonsillectomy.

The possible uses of this hæmostatic in general surgery have not been fully investigated. The solution alone, or with adrenaline, may be of considerable use in nasal-oral operations followed by troublesome bleeding or oozing.

Preparation

TRADE MARK 'STYPVEN' BRAND RUSSELL VIPER VENOM

[SEE LIST B. W. & Co.]

Prices in London: Containers of 1 c.c. (0.1 mgm. Venom and Solvent) (1/4) and 5 c.c. (0.5 mgm. Venom and Solvent) (2/8) per container

A RELIABLE ANALGESIC

TRADE MARK 'TABLOID' BRAND

TRADE 'EMPIRIN' MARK COMPOUND
(ACETYLSALICYLIC ACID)

'TABLOID' 'EMPIRIN' COMPOUND is an analgesic and antipyretic product of proved value.



Reduced facsimile

It is a preparation which exemplifies purity, accuracy and reliability. 'EMPIRIN' is a brand name denoting the acetylsalicylic acid manufactured by Burroughs Wellcome & Co.

In 'TABLOID' BRAND 'EMPIRIN' COMPOUND the therapeutic value of 'EMPIRIN' is enhanced by association with phenacetin and caffeine which reduces any tendency to cardiac depression. The rapid disintegration of the 'TABLOID' product, and its pharmaceutical excellence, which never varies, combine to bring about the prompt effect so much appreciated by every patient.

'TABLOID' 'EMPIRIN' COMPOUND is indicated in neuralgia (especially of the fifth nerve), for the pains of dysmenorrhœa and pain in general. It is of particular value in dental work.

Given in the early stages of feverish cold, it often reduces the fever. The superiority of 'TABLOID' 'EMPIRIN' COMPOUND over other analgesics is very marked.

Preparation

TRADE MARK 'TABLOID' BRAND 'EMPIRIN' TRADE MARK (ACETYLSALICYLIC ACID) COMPOUND [SEE LIST B. W. & Co.]

R 'Empirin' Acid. Acetylsalicyl.,	gr. 3-1/2 (0.227 gm.)
Phenacetini,	gr. 2-1/2 (0.162 gm.)
Caffeinæ,	gr. 1/2 (0.032 gm.)

Prices in London: Bottles of 25 (1/3) and 100 (3/9) per bottle

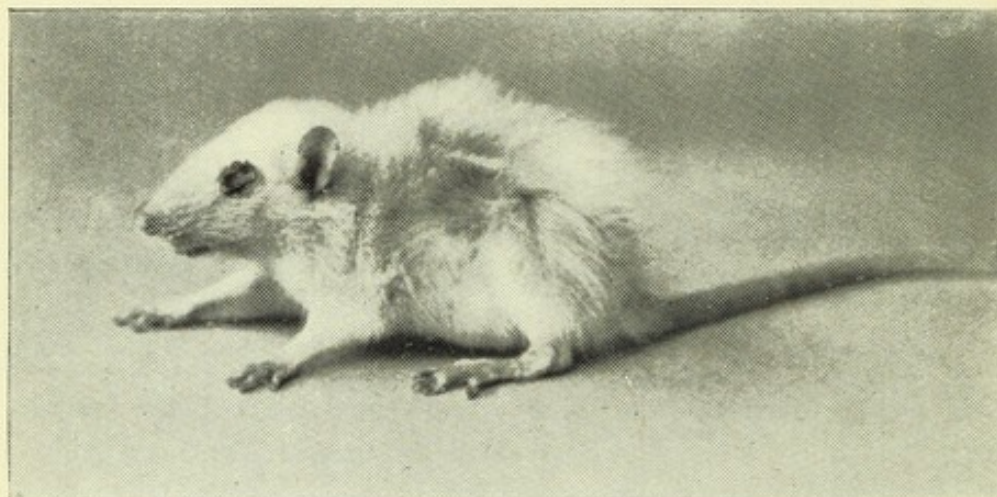
A VALUABLE VITAMIN PRODUCT

TRADE 'KEPLER' MARK

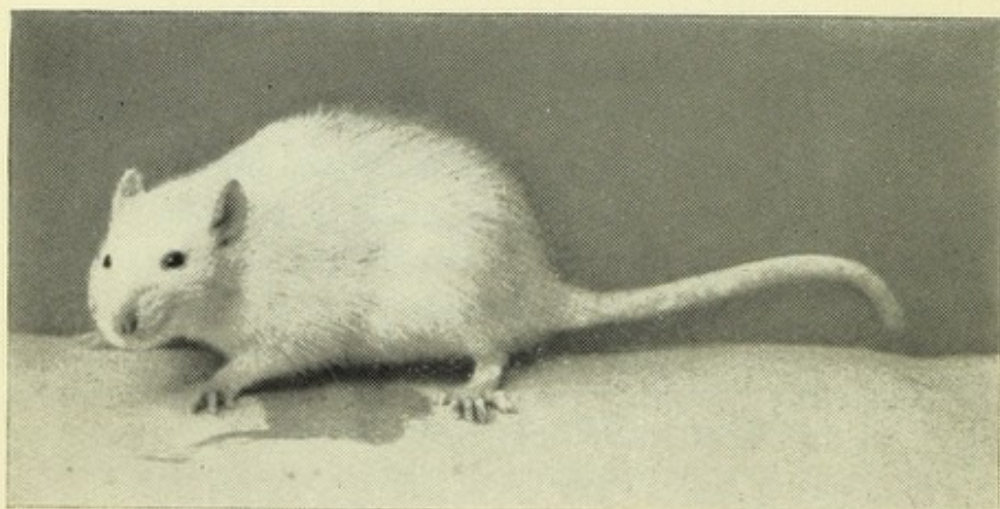
COD LIVER OIL WITH MALT EXTRACT

'KEPLER' COD LIVER OIL presents Vitamins A and D in their natural media and association. 'KEPLER' COD LIVER OIL WITH MALT EXTRACT is palatable, easily digested, and enables cod liver oil to be administered to the most fastidious patients. It forms a valuable dietetic adjunct both in sickness and in health.

ANIMAL FEEDING TESTS



RAT A—Fed on diet devoid of Vitamin A. Shows xerophthalmia, rough coat, and general lack of condition



RAT B—Fed on same diet as its litter mate, Rat A, but with the daily addition of 8.3 mgm. of 'Kepler' Cod Liver Oil with Malt Extract



Reduced facsimile

The 'KEPLER' products issued include such ideal combinations as 'KEPLER' MALT EXTRACT WITH HÆMOGLOBIN or WITH HYPOPHOSPHITES; 'KEPLER' COD LIVER OIL WITH MALT EXTRACT AND IRON IODIDE, or WITH MALT EXTRACT AND HYPOPHOSPHITES, for particulars of which see *Wellcome's Medical Diary*.

Preparation

TRADE MARK 'KEPLER' COD LIVER OIL WITH MALT EXTRACT

[SEE LIST B. W. & Co.]

Prices in London: Bottles (2/1) and large bottles (3/8) per bottle

NICOTINIC ACID

TRADE MARK 'TABLOID' BRAND
NICOTINIC ACID

For the treatment of pellagra

FOLLOWING the discovery of the effectiveness of nicotinic acid and its amide in the treatment of black tongue in dogs, investigations were continued to determine possible effects of the drug on human pellagra which is a closely related condition. The results of trials so far carried out are favourable. In one series of cases, 15 pellagrins were treated; symptoms disappeared and there were no relapses so long as the treatment continued.

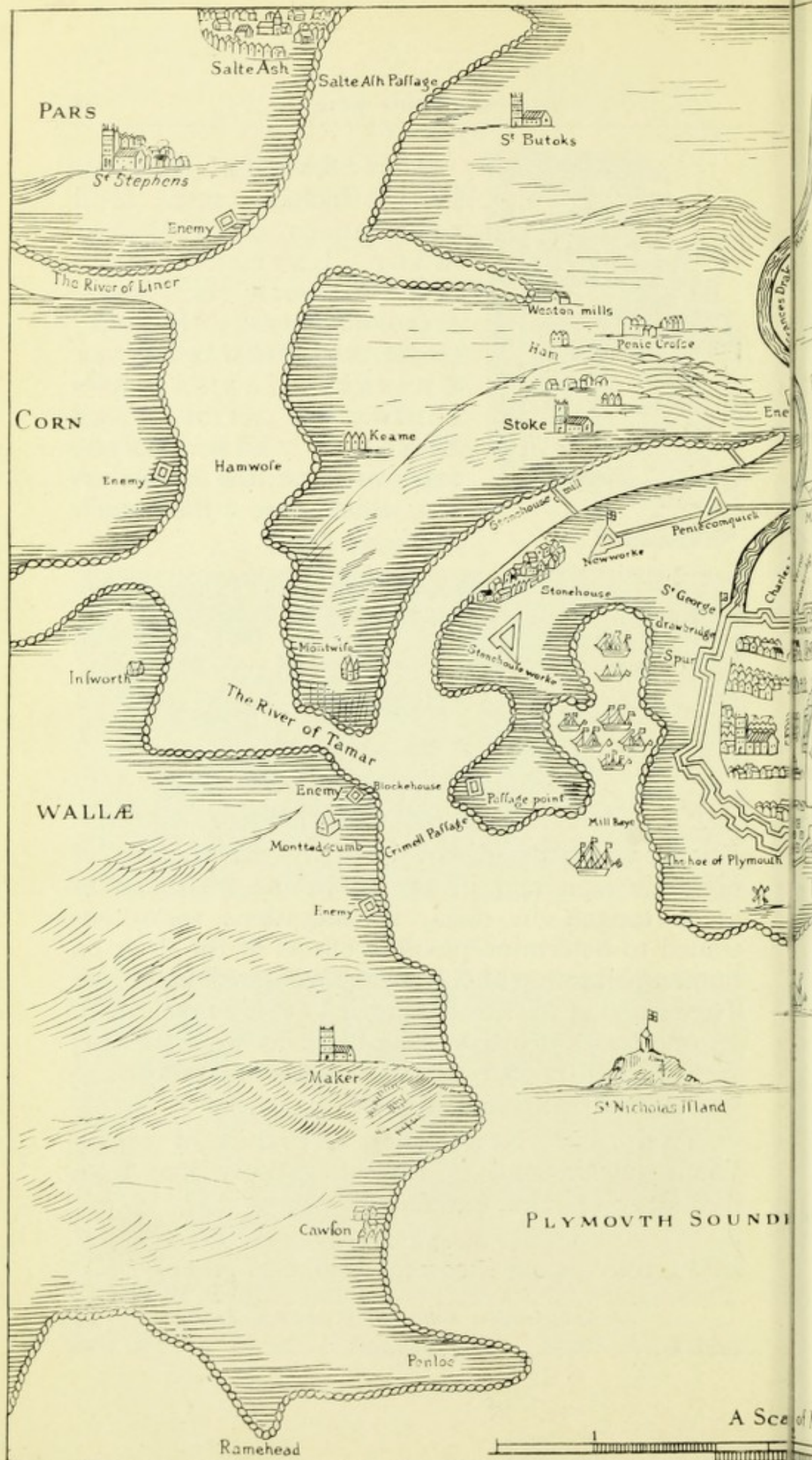
'TABLOID' NICOTINIC ACID is of exceptional purity, and is almost entirely free from secondary reaction products.

Preparation

TRADE MARK 'TABLOID' BRAND NICOTINIC ACID, 0.05 gramme

[SEE LIST B. W. & Co.]

Price in London: Bottles of 100, at 6/6 per bottle



PARS

Salte Ash

Salte Ash Passage

S^t Stephens

S^t Butoks

Enemy

The River of Linc

CORN

Enemy

Hamwofe

Keame

Stoke

Weston mills

Hart

Penic Croise

Penic Croise

Ene

Inworth

The River of Tamar

Montwif

Stonehouse

S^t George

WALLÆ

Enemy

Blockhouse

Pallage point

Montedcumb

Enemy

Maker

S^t Nicholas Island

Cawfon

PLYMOUTH SOUND

Ponloe

Ramehead

A Sce of M

A TRVE MAPP AND DESCRIPTION OF THE TOWNE
of Plymouth and the Fortifications thereof with the workes and
approaches of the Enemy at the last Seige *A 1643.*

