

usage. Among them salt solution, a form of soil containing a large quantity of soda, onions and honey water, oil of indigo, egg white or yolk, charcoal etc. Numerous unguents were used as well as plasters with a base of feathers or hair or rubber. The bezoar stone, especially that from roosters, was of frequent usage. Numerous stones and variously colored earths and native wines were frequently mixed with the juices of plants and frequently parts of animals. Probably the earliest record in America of the use of *Datura* as a narcotic is to be found here, also the use of vanilla plant and the cocoa.

That the knowledge of medical plants and treatments of disease was considered equal to if not superior to that of Europe is indicated by the fact that the early Franciscan friars included Mexican medicine in the curriculum of the College of Santa Cruz. Even more significant is the fact that Philip II sent Dr. Francisco Hernandez, under the title of Protomedico of Spain to New Spain with orders to travel throughout Mexico and collect data on native plants and their usage. History records the fact that after the trade routes were established between the New World and Europe, roots, bark and herbs were shipped to Europe in large quantities. The spreading of Aztec medical knowledge to Europe was accomplished by the writings of Friar Bernardino de Sahagun, Dr. Francisco Hernandez and Dr. Nicholas Monardes, and by the tales of ship captain, travelers and merchants. A careful cross-referencing of the present herbal with other sixteenth century writers of Latin American botanical texts shows but little relationship except with that of Sahagun. This would be expected since he resided at Tlaltelolco during a large part of his life in Mexico, and may have been at one time the teacher of Aztec and Latin to both Martinus de la Cruz and Juan Badianus.

THE PHARMACIST AND THE PODIATRIST.*

BY W. F. AMBROZ.¹

Heretofore, we as pharmacists have been detailing the doctors, the dentists, the veterinarians, the oculists, and all the while passing up the podiatrists. In this field yet untouched or merely scratched, pharmacists have an opportunity to practice the principles they have learned in manufacturing and dispensing pharmacy. Why not apply that knowledge and technique and in return establish a practice that will compensate for the time spent?

The podiatrist or chiropodist belongs to that branch of public health service, the same as the doctor, dentist or nurse. Some practicing physicians now refer cases to the podiatrist for treatment. Pharmacists, therefore, have another channel to work in a well-established and recognized field.

Each state has its own rules and regulations dealing with the podiatrist. Their state boards usually consist of two members of the medical state board and two practicing podiatrists. They have their code of ethics or trade laws which are similar to those of the medical profession governing their practice. In most states they are allowed to write prescriptions for external application. Podiatry schools

* Section on Education and Legislation, Portland meeting, 1935.

¹ Indianapolis College of Pharmacy.

and colleges have three-year courses which are required by most states for state examinations. These courses envelop all phases of study that deal with foot ailment such as: Anatomy, Physiology, Chemistry, Materia Medica, Pathology, Bacteriology, Surgery, Dermatology, Principles of Medicine, Diagnosis, Neurology, X-ray Therapy, Shoe Therapy, Ethics, Medical Jurisprudence, etc.

It is evident that the podiatrist is well trained in the art of caring for the feet, and can prescribe medicines to be used by his patient or will apply many of them himself. He will prescribe local applications, and it is in that connection the pharmacist should take notice.

Various coloring agents should be used with the preparations as well as essential oils for perfumes. Through the advice of the podiatrist the same preparations may be compounded by using different coloring agents and odors. The labels used on the prescriptions should bear the podiatrist's name and the name of the pharmacy.

This field is now being supplied with many proprietaries; the pharmacist can acquaint the podiatrist with many official formulas and probably some original ones which he can compound more economically to the purchaser and with greater profit for himself.

The preparations listed are limited, yet indicate a few materials the podiatrist uses. They can be compounded by pharmacists, and dispensed on prescription or otherwise.

A.—DUSTING POWDERS.

1. Antiseptic Powder	N. F.
2. Compound Powder of Talc.	N. F.
3. Phenol	1.0 Gm.
Camphor	3.0 Gm.
Exsiccated Alum	96.0 Gm.
4. Salicylic Acid	4.0 Gm.
Boric Acid	5.0 Gm.
Starch	16.0 Gm.
Purified Talc	60.0 Gm.
5. Salicylic Acid	10.0 Gm.
Bismuth Subnitrate	15.0 Gm.
Zinc Stearate	10.0 Gm.
<i>To be used for Bromidrosis.</i>	
6. Salicylic Acid	2.0 Gm.
Tannoform	13.0 Gm.
Talcum	15.0 Gm.
<i>To be used for Hyperhidrosis.</i>	
7. Salicylic Acid	2.0 Gm.
Tannic Acid	5.0 Gm.
Orris Root	33.0 Gm.
Alum	60.0 Gm.
8. Bismuth Subgallate	
Boric Acid	aa 15.0 Gm.
9. Bismuth Subnitrate	20.0 Gm.
Starch	10.0 Gm.
Purified Talc	70.0 Gm.
10. Mercuric Chloride	0.06 Gm.
Sodium Salicylate	26.0 Gm.
Prepared Chalk	4.0 Gm.

11. Zinc Oxide	15.0 Gm.
Boric Acid	30.0 Gm.
Purified Talc	45.0 Gm.
12. Thymol Iodide	8.0 Gm.
Zinc Oxide	4.0 Gm.
Lycodium	48.0 Gm.
13. Salol	2.5 Gm.
Purified Talc	97.5 Gm.

B.—EMOLLIENTS.

These substances and preparations are dispensed in ointment, mixture or solution form, for the purpose of soothing.

1. Cacao Butter	U. S. P.
2. Camphor Liniment	U. S. P.
3. Ointment of Rose Water	U. S. P.
4. Carron Oil	U. S. P.
5. Camphor Ointment	N. F.
6. Ointment of Zinc Stearate	N. F.
7. Calamine Lotion	N. F.
8. Compound Calamine Lotion	N. F.
9. Glycerin	
Rose Water—equal parts.	
10. Tragacanth	0.5 Gm.
Boric Acid	1.5 Gm.
Glycerin	1.5 cc.
Water q. s.	100.0 cc.
11. Balsam of Peru	25.0 Gm.
Sulphonated Bitumen	25.0 Gm.

Wool Fat	50.0 Gm.
Petrolatum	50.0 Gm.
12. Phenol	2.0 Gm.
Menthol	6.0 Gm.
Petrolatum	60.0 Gm.
Wool Fat	32.0 Gm.
13. Lead Oleate Plaster	48.0 Gm.
Olive Oil	8.0 Gm.
Boric Acid	6.0 Gm.
Tannic Acid	2.0 Gm.
Petrolatum	36.0 Gm.

C.—MASSAGE PREPARATIONS.

These substances are dispensed in ointment, mixture or solution form, and applied before or after treatment, usually with a vibrator.

1. Witch Hazel Water	N. F.
2. Rubbing Alcohol	
3. Menthol	2.5 Gm.
Tragacanth	4.0 Gm.
Glycerin	12.0 cc.
Alcohol	15.0 cc.
Water <i>q. s.</i>	300.0 cc.
4. Gelatin	2.0 Gm.
Water	48.0 cc.
Glycerin	5.0 cc.
Glycerite of Boroglycerin	45.0 Gm.
5. Vanishing Creams	
6. Fluidextract of Hamamelis	10.0 cc.
Wool Fat	60.0 Gm.
Petrolatum	30.0 Gm.
7. Menthol	0.8 Gm.
Camphor	0.8 Gm.
Eucalyptol	3.0 Gm.
Petrolatum	96.0 Gm.

D.—KARYOLYTICS.—SOFTENING OF ABNORMAL GROWTHS.

Used by the podiatrist.

1. Soap Liniment	U. S. P.
2. Liniment of Soft Soap	U. S. P.
3. 2% Aqueous Phenol Solution	
4. 2% Aqueous Potassium Hydroxide Solution	

E.—ESCHAROTICS.

Used by the podiatrist and in some cases by the patient in the removal of corns, tumors, warts, etc.

1. Solution of Zinc Chloride	U. S. P.
2. Nitric Acid	U. S. P.
3. Glacial Acetic Acid	U. S. P.
4. Trichloroacetic Acid	U. S. P.
5. Compound Collodion of Salicylic Acid	N. F.

6. Saturated Solution of Salicylic Acid in Alcohol	
7. 40% Aqueous Potassium Hydroxide Solution	
8. 50% Aqueous Silver Nitrate Solution	
9. Saturated Aqueous Solution of Potassium Dichromate	
10. Chromic Acid—used with enough water to form a paste	
11. Copper Sulphate in Sticks, Powder or a 15% Aqueous Solution	
12. 60% Salicylic Acid Ointment	
13. Trinitrophenol	1.3 Gm.
Alcohol <i>q. s.</i>	30.0 cc.

F.—SKIN LESIONS.

(a) *Dry, Scaly, Exfoliate.*

1. Ointment of Mercuric Nitrate	N. F.
2. Modified Whitfield's Ointment	
3. Sulphonated Bitumen	8.0 Gm.
Glycerin	16.0 Gm.
Rose Water	16.0 cc.

(b) *Ulcerated and Tender.*

1. Ointment of Tannic Acid	U. S. P.
2. Calamine Lotion	N. F.
3. 5% Aqueous Solution of Sodium Thio-sulphate	
4. Saturated Aqueous Solution of Epsom Salt	
5. Borax—as a dusting powder	
6. 5% Ammoniated Mercury Ointment	
7. 8% Ointment of Scarlet Red.	
8. Tincture of Iodine U. S. P.—diluted one-half with glycerin	
9. 5% Gentian Violet in 50% Alcohol	
10. Acriflavine Hydrochloride 5%, in 55 parts of Alcohol, 10 parts of Acetone and 35 parts of Water	
11. Saturated Aqueous Solution of Boric Acid	

(c) *With Itching.*

1. Dobell's Solution	N. F.
2. Burrow's Solution	N. F. diluted one to ten
3. 5% Ammoniated Mercury Ointment containing 1 cc. of Liquefied Phenol per 100 Gm.	
4. 10% Salicylic Acid Ointment	
5. Borax	8.0 Gm.
Liquefied Phenol	2.0 cc.
Glycerin	2.0 cc.
Water <i>q. s.</i>	250.0 cc.

(d) *Vesicular.*

1. Solution of Hydrogen Peroxide	U. S. P.
----------------------------------	----------

- 2. Lassar's Zinc Paste N. F.
- 3. Tincture of Iodine U. S. P.
Half strength
- 4. Whitfield's Ointment
- 5. 10% Ointment of Ammoniated Mercury
containing one drachm of Sublimed
Sulphur to the ounce
- 6. Saturated Solution of Salicylic Acid in
Alcohol
- 7. 70% Alcohol
- 8. 1% Phenol Solution in 9% Alcohol and
Water
- 9. Mercuric Chloride 1 to 1000

G.—PREPARATIONS USED IN THE TREATMENT OF RING WORM INFECTIONS.

- 1. Tincture of Iodine U. S. P. diluted half
with Glycerin
- 2. 12.5% Aqueous Solution of Sodium
Thiosulphate
- 3. Mercuric Chloride 1 to 250
- 4. Mercuric Chloride 0.18 Gm.
Formaldehyde 0.42 cc.
Acetone 10.00 cc.
Spirit of Camphor 90.00 cc.
- 5. Biniiodide of Mercury 0.12 Gm.
Tincture of Iodine *q. s.* 30.00 cc.
- 6. Ointment of Chrysarobin 5.0 Gm.
Ointment of Tar 55.0 Gm.

H.—HYPERHIDROSIS AND BROMIDROSIS.

Used by the podiatrist or by the patient as directed by the podiatrist.

- 1. Glycerite of Tannic Acid U. S. P.

- 2. Potassium Permanganate 1 to 1500.
Immerse feet for 5 or 10 minutes once
or twice a day.
- 3. 4% Formaldehyde
- 4. 10% Aqueous Solution of Aluminum
Chloride
- 5. 5% Tannic Acid Solution or 10% Oint-
ment
- 6. 5% Aqueous Solution of Alum.
- 7. Potassium Permanganate 0.5 Gm.
Thymol 1.0 Gm.
Water *q. s.* 480.0 cc.
- 8. Compound Solution of Cresol 4.0 cc.
Alcohol 96.0 cc.
- 9. Aluminum Chloride 10.0 Gm.
Alcohol 25.0 cc.
Water *q. s.* 100.0 cc.

I.—SKIN STIMULANTS.

Substances used to assist in healing.

- 1. Balsam of Peru U. S. P.
- 2. 3 to 5% Solution of Salicylic Acid in
Alcohol
- 3. Ointment of Salicylic Acid, 2% in Cold
Cream
- 4. Strong Silver Protein 15.0 Gm.
Water 10.0 cc.
Hydrous Wool Fat 15.0 Gm.
Petrolatum 60.0 Gm.
- 5. Scarlet Red 4.0 Gm.
Olive Oil 12.0 Gm.
Hydrous Wool Fat 30.0 Gm.
Petrolatum 54.0 Gm.

DENTAL FORMULAS.

MOUTH RINSE.

Menthol	0.5 Gm.
Thymol	0.5 Gm.
Eucalyptol	2.5 cc.
Methyl Salicylate	0.6 cc.
Alcohol	150.0 cc.
<hr/>	
Distilled Water, <i>q. s.</i>	1000.0 cc.

This is an aromatic mouth rinse similar to Liquor Antisepticus, but without any strongly antiseptic substances. When diluted 2-3 times, it is suitable for the spray bottle.

TOPICAL ANESTHETIC.

Ethyl Aminobenzoate (Benzocaine)	5.00 Gm.
Camphor	0.25 Gm.

Menthol	0.25 Gm.
Oil of Clove	0.50 cc.
Oil of Cinnamon	0.50 cc.
<hr/>	
Alcohol to make	100.00 cc.

A few drops applied to the gum with a medicine dropper or pipette will produce surface anesthesia within 15-20 seconds. The effects persist for 10 to 15 minutes and are devoid of any subsequent irritation. Rubbing is not necessary, neither hastening nor increasing the depth of anesthesia.

Variations in flavors, such as using oils of Spearmint, Wintergreen, Peppermint, Sassafras, etc., will result in preparations according to personal tastes. The amount of Benzocaine can be increased up to 10% but should not be reduced below 3% for best results.