

years in the search for vanadium compounds suitable for therapeutic exhibition. Dr. Felix von Oefele and Dr. J. Bullinger, in view of the prospective importance of the metal, its alloys, and saline compounds, have now contributed an interesting review of our present knowledge of these compounds, with particular reflection upon those which have found therapeutic use. They speak of the occurrence of vanadium in nature, mention some of the uses of its alloys in technical medicine—such for example as the gold and platinum alloys of vanadium in dentistry—and then proceed to the description of a number of inorganic compounds of the metal which have been favorably mentioned as therapeutic medicaments; such, for example, as the several different modifications of vanadium pentoxide (V_2O_5); the different salts of orthovanadic acid (H_2VO_4), vanadium dichloride, respectively, which are characterized by great stability, and have on this account been exploited for a number of years past as specialties under specific trade names. Other compounds that are promising are the iodides and oxyiodides of vanadium, vanadium trisulphide, and vanadium selenide. Interesting compounds also, although no pharmacological experiments have yet been made with them, are the vanadium sulphvanadates, the vanadium oxysulphvanadates, and the vanadium sulphates.—Pharm. Zeutralh., LIII (1912), No. 1, 1-9.

Volatile Oils: Effect of Hydrogen Dioxide on Flavor and Taste.—The chemist of E. Sachsse & Co. reports the results of a series of experiments which, in view of the energetic oxidizing action of hydrogen dioxide, were undertaken to determine the effect of the latter on the volatile oils containing easily oxidizable constituents—such as aldehydes, alcohols, etc., which frequently compose the aromatic flavors of mouth washes containing H_2O_2 . The experiments were carried out by adding to a mixture of 40 gm. Alcohol (90 vol. percent), 30 gm. Water, and 25 gm. Hydrogen Dioxide, 0.05 gm. of the Volatile oil, and allowing this mixture to stand two months. The *taste* of the mixture was then compared with that of freshly-prepared mixture of identically the same material—no attempt being made to compare the *odor* by reason of the great dilution. The results were as follows:

Unchanged: Anethol, Anise Oil, Star-

anise Oil, Bornyl-Acetate, Eucalyptol, Eucalyptus glob. Oil, Geranium Oil, Pine-needle Oil, and Thymol.

Changed: Taste fainter than fresh—Carvacrol, Eugenol, Clove Oil, and Terpeneol; decidedly changed—Geraniol (insipid, musty odor), Menthol, Menthyl Acetate (taste completely destroyed), Peppermint Oils of all sort, and Cinnamic Aldehyde (completely oxidized, without a trace of cinnamon odor or taste).—Pharm. Ztg., LVII (1912), No. 4, 34.

Pharmaceutical Formulas

PROPOSED FOR A. PH. A. RECIPE BOOK.

(Continued from page 638.)

The present installment consists of formulas for Lotions, which the writer has been collecting for years. A great many of these preparations are frequently ordered on prescriptions, or called for over the counter, but the books at the disposal of the average pharmacist do not give formulas for same.

Strange to say, the pharmacopoeias and formularies of the Continent list none or very few lotions under the title "Lotio," but generally classify them as "Aqua" or "Liquor," or "Mixture," or "Solutio," or "Spiritus," etc., as can be seen in Formula No. 1 (JOURNAL A. PH. A., p. 169) for Kummerfeld's Lotion, which has the title of *Aqua Cosmetica*.

Comments and criticisms are invited.

Respectfully submitted,

OTTO RAUBENHEIMER, Chairman.



Abbreviations can be found in May JOURNAL, p. 504.

Formulas No. 1 to 22, see February JOURNAL, p. 169 to 173.

Formulas No. 23 to 30, see April JOURNAL, p. 366 to 368.

Formulas No. 31 to 41, see May JOURNAL, p. 505 to 506.

Formulas No. 42 to 50, see June JOURNAL, p. 637 to 638.

LOTIONES.

Lotions.

The word "lotio" is derived from the Latin lavo=to wash.

Lotions are liquid preparations intended for application to the skin, or for use as washes for aural, nasal, ophthalmic, oral or urethral irrigation. They usually contain chemical substances in suspension or solution in aqueous vehicles. The addition of alcohol to aqueous lotions increases the rapidity of evaporation from the surface to which they are applied, their cooling effect being consequently increased. The use of glycerin in lotions retards the drying process and tends to produce a temporary protective film, which, if covered with a suitable dressing, remains moist for a considerable period.

Lotions are used without friction. They are applied with absorbent cotton, or upon linen or other absorbent fabric. Some lotions are allowed to dry on the skin and others are used so as to keep the area moist. In the latter case it is best to cover the moist cotton with oiled silk or some other waterproof material.

It should also be borne in mind that the ordinary lotions do not penetrate the epidermis.



No. 51.

LOTIO ALBA.

White Lotion.

Lotio Sulphurata.

Zinc Sulphate.....	5 gm.
Sulphurated Potassa.....	5 gm.
Water, or Rose Water, a	
sufficient quantity	_____
To make.....	125 cc.

Dissolve each chemical in 60 cc. of Water, or Rose Water, which is preferred by some dermatologists and also by some patients on account of its odor; filter each solution and mix by slowly pouring the Potassa solution into the Zinc solution. Then add sufficient Water or Rose Water to make 125 cc.

It is absolutely necessary that the sulphurated potassa or liver of sulphur shall be fresh. When it has acquired a gray color and has lost its strong odor, then it is not fit for use.

This lotion should, of course, be dispensed with a "shake well" label.

The strength of White Lotion varies with

some dermatologists from 4 to 8 gm. of each chemical to 125 cc.



No. 52.

LOTIO ALBA COMPOSITA.

Compound White Lotion.

Precipitated Sulphur.....	5 gm.
White Lotion, a sufficient	
quantity	_____
To make.....	125 cc.

Mix well by trituration.
Shake well before using.

By experience, the writer has found that it is best not to have the bottle completely filled with this lotion, as there will be a gas generated which will cause the lotion to splash or the bottle to burst. The writer is therefor in the habit of using a 6-ounce bottle for 4 ounces of the lotion, and gives this advice to his fellow-pharmacists.

As in No. 51, dermatologists vary the strength of this lotion from 4 to 8 gm. of precipitated sulphur, as well as zinc sulphate and sulphurated potassa in 125 cc.



No. 53.

LOTIO RUBRA.

Red Lotion.

Red Wash.

Zinc Sulphate.....	5 gm.
Compound Tincture of Lavender	60 cc.
Water, a sufficient quantity	_____
To make.....	1000 cc.

Dissolve the Zinc Sulphate in the Water and add the Compound Tincture of Lavender. Shake well before using.



No. 54.

LOTIO ALKALINA.

Alkaline Lotion.

P. B. Cx.

Sodium Bicarbonate	
Borax.....	of each 10 gm.
Distilled Water, a sufficient	
quantity	_____
To make.....	1000 cc.

Dissolve.
B. P. Cx. 1911.

No. 55.

LOTIO BENZOINI.

Benzoin Lotion.
Lait Virginal.
B. P. Cx.

Tincture of Benzoin..... 2.5 cc.
Rose Water, a sufficient
quantity _____
To make..... 100 cc.

According to the experience of the writer, the nicest and smoothest "Milk" is obtained by placing the tincture of benzoin into a perfectly dry bottle and in a thin stream add the water.



LOTIO CALAMINÆ.

Calamine Lotion.

The composition of "Calamine Lotion" differs very much in its ingredients as well as in strength.

The two formulas selected are from authorities, namely, one from Dr. L. Duncan Bulkley, the well-known New York dermatologist, and used in the N. Y. Skin and Cancer Hospital, etc., and the other from the British Pharmaceutical Codex, 1911.

Inasmuch as the calamine of commerce frequently contains coarse particles, it is absolutely necessary to clutriate the calamine and zinc oxide by triturating in a mortar with successive portions of the liquids, water, rose water and lime water, and then decanting from the coarse or siliceous particles in the bottom of the mortar.

A

Calamine 4 gm.
Zinc Oxide..... 8 gm.
Glycerin 12 gm.
Lime Water..... 15 cc.
Water or Rose Water, a
sufficient quantity _____
To make..... 125 cc.

Dr. L. Duncan Bulkley.

B

Prepared Calamine..... 10 gm.
Zinc Oxide..... 5 gm.
Glycerin 5 cc.
Rose Water, a sufficient
quantity _____
To make..... 100 cc.

B. P. Cx.

No. 57.

LOTIO CALAMINÆ COMPOSITA.

Compound Calamine Lotion.

Phenol, liquified.....1 to 2 cc.
Calamine Lotion No. 56 A..... 100 cc.
Mix.
N. Y. Skin and Cancer Hospital.



No. 58.

LOTIO A. B. C.

St. Thomas Hospital.

Lotio Acidi Carbolicæ et Boracis.
B. P. Cx.

Glycerite of Phenol, U. S. P. 10 cc.
Glycerin of Borax, B. P. (No. 59) 10 cc.
Distilled Water, a sufficient
quantity _____
To make..... 100 cc.

Mix.

This lotion, diluted with five to ten times its volume of water, is an excellent antiseptic gargle and mouth wash.



No. 59.

GLYCERINUM BORACIS.

Glycerin of Borax.

B. P.

Borax, in powder..... 10 gm.
Glycerin 60 cc.
Triturate until solution is effected.



No. 60.

LOTIO EVAPORANS.

Evaporating Lotion.

A

Alcohol 20 cc.
Distilled Water, a sufficient
quantity _____
To make..... 100 cc.

B. P. Cx.

B

Ammonium Chloride..... 15 gm.
Alcohol 60 cc.
Water, a sufficient quantity _____
To make..... 360 cc.

Ph. Formulas.

No. 61.

LOTIO ZINCI OXIDI.

Zinc Oxide Lotion.

Zinc Oxide..... 20 gm.
Glycerin 10 gm.
Rose Water..... 70 gm.

To make..... 100 gm.

By the addition of about 0.1 gm. of brown iron oxide, the so-called iron subcarbonate, a flesh tinted preparation will be obtained.

Hager Erg. Bd.

<>

No. 62.

LOTIO MAGNESIÆ ET ZINCI.

Magnesia and Zinc Lotion.

Magnesium Carbonate
Zinc Oxide.....of each 4 gm.
Water, or Rose Water, a
sufficient quantity

To make..... 125 cc.

N. Y. Skin and Cancer Hospital.

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No. 63.

LOTIO REFRIGERANS.

Cooling Lotion.

(Sir A. Cooper.)

Potassium Nitrate
Ammonium Chloride....of each 150 gm.
Water 500 cc.
Dissolve.
Ph. Formulas.

<>

No. 64.

LOTIO RESORCINOLI.

Resorcin Lotion.

A

Formula of Dr. George T. Elliot.

Resorcin 5 gm.
Diluted Alcohol..... 100 cc.
N. Y. Skin and Cancer Hospital.

B

Andeer's Lotion.

Resorcin 10 gm.
Distilled Water..... 100 cc.
B. P. Cx.

No. 65.

LOTIO PICIS CARBONIS.

Coal Tar Lotion.

Solution of Coal Tar..... 0.5 cc.
Distilled Water, a sufficient
quantity

To make..... 100 cc.

B. P. Cx.

NOTE: Solution of Coal Tar or Liquor Picis Carbonis, also known under the trade-marked name Liquor Carbonis Detergens, is proposed for admission into N. F. IV. (See also Proc. A. Ph. A., Vol. 57, p. 1031).

CAUTION: *Lotio Picis Carbonis* and *Emulsio Picis Carbonis*, the formula which follows, should not be confused!

<>

No. 66.

EMULSIO PICIS CARBONIS.

Emulsio Coaltar, Codex.

Emulsion de Coaltar.

Emulsion of Coal Tar.

Coaltar Saponiné Le Beuf (Lux.)

Solution of Coal Tar..... 1 part
Distilled Water..... 4 parts
Mix.

This emulsion is diluted with about 10 parts of water for ordinary use.

<>

No. 67.

.. LOTIO PICIS CARBONIS.

Alkaline Coal Tar Lotion.

Solution of Coal Tar..... 0.5 cc.
Sodium Bicarbonate..... 1.25 cc.
Distilled Water, a sufficient
quantity

To make..... 100 cc.

Dissolve the Sodium Bicarbonate in the Water and add the Solution of Coal Tar.
B. P. Cx.

<>

No. 68.

LOTIO PRO ERYSIPELAS.

Erysipelas Lotion.

Chloral Hydrate..... 40 gm.
Spirit of Camphor, a sufficient
quantity

To make..... 125 cc.

N. Y. City Hospital.

No. 69.

LOTIO OPII ALKALINA.

Alkaline Opium Lotion.
"Fuller's" Lotion.

Sodium Carbonate, crystals.....	24 gm.
Tincture of Opium.....	30 cc.
Glycerin	60 cc.
Water	270 cc.
N. Y. City Hospital—Hospital Formulary.	

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No. 70.

LOTIO PRO ALOPECIA.

Dandruff Lotion.

Mercuric Bichloride.....	0.4 gm.
Resorcinol	
Boric Acid.....of each	20 gm.
Glycerin	15 cc.
Alcohol	125 cc.
Water, a sufficient quantity	_____
To make.....	250 cc.
To be used as wash for the scalp.	
Bellevue Dispensary.	

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No. 71.

LOTIO PRO MANIBUS.

Hand Lotion.

Citric Acid.....	0.6 gm.
Comp. Tincture of Lavender..	12 cc.
Alcohol	
Water.....of each..	30 cc.
Glycerin, a sufficient quantity	_____
To make.....	125 cc.
Kings County Hospital.	

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No. 72.

LOTIO BISMUTHI COMPOSITA.

Compound Bismuth Lotion.
(Startin.)

Bismuth Subnitrate	
Zinc Oxide.....of each	15 gm.
Spirit of Camphor	
Glycerin.....of each	15 cc.
Water, a sufficient quantity	_____
To make.....	600 cc.

Mix.

A soothing application for irritable skin
in acne, etc.

Ph. Formulas.

No. 73.

LOTIO SULPHURIS.

Sulphur Lotion.

Precipitated Sulphur.....	6.85 gm.
Glycerin	3.10 cc.
Alcohol	12.5 cc.
Rose Water.....	40 cc.
Lime Water, a sufficient quantity	_____
To make.....	100 cc.

Triturate the Precipitated Sulphur with the
Glycerin and some of the Rose Water to
form to smooth paste, and then add the
other liquids.

B. P. Cx.

<>

No. 74.

LOTIO PLUMBI ET SULPHURIS.

Lead and Sulphur Lotion.

"Sulphur Hair Restorer."

Lead Acetate, in powder.....	1.75 gm.
Precipitated Sulphur.....	3.50 gm.
Spirit of Rosemary.....	2.50 cc.
Glycerin	12.50 cc.
Rose Water, a sufficient quantity	_____
To make.....	100 cc.

Mix the Lead Acetate and Precipitated
Sulphur intimately, triturate with the Gly-
cerin, then add the Spirit of Rosemary, and
sufficient Rose Water to make up the re-
quired volume.

B. P. Cx.

<>

No. 75.

LOTIO QUININÆ.

Quinine Lotion.

"Eau de Quinine."

Quinine Hydrochloride.....	0.11 gm.
Chloroform	0.52 cc.
Alcohol	20 cc.
Glycerin	1.56 cc.
Cologne Water	1.56 cc.
Spirit of Myrcia (U. S. P. 1890)	25 cc.
Tincture of Cudbear.....	3.12 cc.
Rose Water, a sufficient quantity	_____
To make.....	100 cc.

Dissolve the Quinine Hydrochloride in 40
cc. of Rose Water, add the other ingredients,

make up to the required volume with Rose Water and then filter through purified talc.
B. P. Cx.



No. 76.

LOTIO RESORCINI COMPOSITA.

Spiritus Resorcini.
Spiritus Capillaris.

Resorcinol	2.5 gm.
Castor Oil	2.5 cc.
Cologne Water	20 cc.
Alcohol, a sufficient quantity	_____
To make.....	100 cc.

Dissolve.
B. P. Cx.



No. 77.

LOTIO IRRITANS, GRANVILLE.

Granville's Counter-irritant, or
Antidynous Lotions.

A—Mild.

Stronger Ammonia Water.....	30 cc.
Spirit of Rosemary.....	24 cc.
Spirit of Camphor.....	8 cc.

Mix.

B—Strong.

Stronger Ammonia Water.....	40 cc.
Spirit of Rosemary.....	16 cc.
Spirit of Camphor.....	8 cc.

Mix.

These preparations will blister in periods, varied from 2 to 10 minutes, by saturating a piece of linen folder 5 or 6 times over a coin, and pressing it upon the part. Over more extended surfaces, a similar method is adopted by protecting the solution from evaporation.

Parrish.

(To be continued.)



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