PHARMACEUTICAL FORMULAS

PROPOSED FOR A. PH. A. RECIPE BOOK.

A complete list of these Proposed Formulas since February 1912 was published in an Index in the December 1916 number of the JOURNAL. The Committee will continue its work in monthly instalments in this Department of the JOURNAL. Members of the A. Ph. A. are earnestly requested to send suitable formulas and also criticisms of those published to the Chairman.

Otto Raubenheimer, Brooklyn, N. Y.

No. 447.

NIEMEYER'S DROPS.

Morphine Sulphate	1 Gm.
Bitter Almond Water	100 mils

No. 448.

UNGUENTUM BELLADONNAE ET HYDRARGYRI.

Ointment of Belladonna and Mercury.

German Hospital, Phila.

Ointment of Belladonna	500 Gm.
Mercurial Ointment	500 Gm.

No. 449.

UNGUENTUM GALLAE CUM OPIO.

Gall and Opium Ointment.

German Hospital, Phila.

Powdered Opium	50 Gm.
Nutgall Ointment	950 Gm.

No. 450.

MODIFIED DOBELL'S SOLUTION.

German Hospital, Phila.

Sodium Borate	15 Gm.
Sodium Bicarbonate	15 Gm.
Sodium Benzoate	0.50 Gm.
Sodium Salicylate	0.50 Gm.
Eucalyptol	0.30 mil
Thymol	0.30 Gm.
Menthol	0.15 Gm.
Methyl Salicylate	0.20 mil
Glycerin	125 mils
Alcohol	30 mils
Distilled Water, a sufficient quantity.	
To make	4000 mils

This preparation is very popular among the physicians of the German Hospital, Phila. The antiseptic phenol has been replaced by others of a more agreeable nature and the alkalinity reduced to one-fourth the strength of the original Dobell's solution; this does away with the necessity of further dilution.

No. 451.

EAU DE BOTOT.

Botot's Dentifrice.

German Hospital, Phila.

Oil of Cinnamon	5 mils
Oil of Clove	5 mils
Oil of Anise	5 mils
Oil of Peppermint	10 mils
Oil of Cedar	2 mils
Tincture of Vanilla	50 mils
Potassium Bitartrate	10 Gm.
Cochineal	10 Gm.
Alcohol	1500 mils
Water	500 mils

Dissolve the oils in the alcohol, and the potassium bitartrate in the water, mix the two solutions, then add the cochineal and allow to macerate five days and filter.

No. 452.

ELIXIR VIBURNI CUM HYDRASTIS COMPOSITUM.

German Hospital, Phila.

Viburnum Opulus	150 Gm.
Hydrastis	100 Gm.
Jamaica Dogwood	75 Gm.
Pulsatilla	25 Gm.
Comp. Spirit of Orange	15 mils
Glycerin	150 mils
Sugar	150 Gm.
Diluted Alcohol, a sufficient quantity,	
To make	1000 mils

Moisten the ground drugs with 200 mils of diluted alcohol, macerate 24 hours, then pack firmly in a percolator, pour on diluted alcohol and allow percolation to proceed until 685 mils of percolate have been obtained; add the glycerin and sugar, agitate until solution has been effected, and lastly add the compound spirit of orange.

No. 453.

HARDENING BATH.

Formaldehyde Solution	10 mils
Water	100 mils

Soak plates or prints for about 10 minutes and wash.

No. 454.

STARCH PASTE.

Starch	60 Gm.
Powdered Alum	3 Gm.
Liquefied Phenol	12 drops
Water	600 mils

Mix the starch with 60 mils of water, and stir into 540 mils of boiling water, in which the powdered alum and the phenol are dissolved.

Contributed by the Chairman:

DAKIN'S OR DAKIN-CARREL SOLUTION.
CARREL'S OR CARREL-DAKIN SOLUTION.

This solution has again proven, that there is nothing new under the sun. *Nihil novi sub sole!* It is well known that remedies become obsolete, and that in time these forgotten remedies are again resurrected. For this reason the following motto taken from Horace was placed on the front page of the Dispensatory of Valerius Cordus:

"Multa Renascentur, quae jam Cecidere;
Cadentque, quae nunc sunt in Honore!"

"Many things shall be brought to life, which have fallen;
And many things, which are now in honor, shall fall!"

Chlorine was discovered in 1774 by the Swedish apothecary, Carl Wilhelm Scheele, who named it "dephlogisticated marine acid," because he considered it muriatic acid, deprived of phlogiston. Berthollet in 1785 named it "oxy-muriatic acid." Sir Humphrey Davy was the first to express the distinct opinion, that this gas was an element, and he named it "chlorine" in 1811. Berthollet discovered its bleaching action in 1788, and in 1789 the bleaching liquid solution of chlorinated potassa or Eau de Javelle, was first prepared in Javelle near Paris. Bleaching powder or chlorinated lime was manufactured in 1799 by Tennant in Glasgow and on account of its solid state came into extensive use. The French apothecary, Antoine Germain Labarraque in 1822 prepared a bleaching liquid by saturating a cold aqueous solution of sodium carbonate with chlorine, which received the name Eau de Labarraque. The Payen process by the double decomposition of chlorinated lime and sal soda, was introduced into the French Codex in 1837 and has been in use ever since.

Dr. Ignaz Philipp Semmelweis, obstetrician in the First Clinic of the Vienna Maternity Hospital, introduced in 1847 the disinfection and sterilization of the hands by means of a solution of chlorinated lime. This was the introduction of antisepsis into obstetrics, and immediately the dreaded plague, puerperal fever, disappeared.

It is therefore rather strange that in 1915 chlorinated lime or chlorinated soda was again resurrected as a convenient antiseptic solution for use in the hospitals in the present war.

Dr. Alexis Carrel is in charge of the Rockefeller Institute at Compiègne, France, where the antiseptic solutions mentioned in the title are being used as wet dressings for wounds. Dr. H. D. Dakin, formerly director of Herter Laboratories of N. Y. City, but now bacteriologist at Compiègne, presented in August 1915, a paper on Antiseptics before the Academie des Sciences at Paris. He advocated the use of a diluted Labarraque Solution, neutralized with Boric Acid, and made the claim that a *neutral* hypochlorite solution was less irritating than an acid or alkaline solution.

The original formula produced a solution which decomposed very quickly and thus gave unsatisfactory results as an antiseptic fluid. For this reason the boric acid was omitted and the addition of sodium bicarbonate was made. The finished solution is ready for surgical use and should be preserved in well stoppered bottles in a cool place, protected from the light. It is practically isotomic with the blood serum. It contains from 0.45 to 0.5 percent of sodium hypochlorite with small amounts of neutral sodium salts.

Test: If 0.2 Gm. phenolphthalein are sprinkled upon 20 mils of this solution and same is shaken with a rotary motion, the liquid should remain colorless.

Assay: To 10 mils of the solution add 2 mils of acetic acid and a solution of 2 Gm. of potassium iodide in 10 mils of distilled water. Then titrate with tenth-normal sodium thiosulphate. The number of mils used multiplied by 0.03725 equals the percentage of sodium hypochlorite in the solution.

BIBLIOGRAPHY.

J. A. M. A., vol. 66, p. 150, 430; vol. 67, p. 1108, 1687, 1795.
J. A. PH. A., vol. V, p. 1195, 1407.
Presse médicale, vol. 24, p. 474.
Cal. State Jour. Med., Nov. 1916, p. 429.

No. 455.

DAKIN'S SOLUTION.

Original.

Boric Acid	40 Gm.
Chlorinated Lime	200 Gm.
Sodium Carbonate, dried	140 Gm.
Water	10000 mils

Dissolve the soda in the water and then mix in the chlorinated lime. Allow to stand for about one hour and syphon off the clear liquid, in which the boric acid is then dissolved.

No. 456.

DAKIN'S SOLUTION.

Glover.

Wm. H. Glover, Lawrence, Mass., prepares this solution by using the modus operandi (but not the quantities) of Liquor Sodae Chlorinatae U. S. P. He then titrates an aliquot volume with a solution of boric acid until neutral, using phenolphthalein T. S. as indicator. From this he calculates the volume of boric acid solution necessary for neutralization.

Inasmuch as boric acid decomposes the hypochlorite upon keeping, it is advisable to add same when called for.

No. 457.

CARREL'S SOLUTION.

Extemporaneous.

Solution Chlorinated Soda	200 mils
Water	800 mils
Boric Acid	4 Gm.

Dissolve boric acid in water and mix with chlorinated solution.

No. 458.

DAKIN-CARREL SOLUTION.

Daufresne.

Chlorinated Lime	200 Gm.
Sodium Carbonate, dried	100 Gm.
Sodium Bicarbonate	80 Gm.
Water	10000 mils

Mix the chlorinated lime with 5 liters of water in a 12-liter flask and set aside over night. Dissolve the 2 sodium salts in 5 liters of *cold* water, add this solution to chlorinated lime mixture, agitate well and set aside. When the calcium carbonate has precipitated, syphon off the clear liquid and filter. Preserve in well-stoppered bottles, protected from the light.

Note: No heat must be used!

No. 459.

DAKIN'S OR CARREL'S SOLUTION.

Extemporaneous.

This subject is at present under investigation by the Post-graduate students of the Department of Pharmacy of the College of Jersey City, and the results will be published in due time.

What the pharmacist wants is an extemporaneous method of quickly preparing this solution when called for, and the following formula is proposed:

Solution of Chlorinated Soda, U. S. P.	200 mils
Water	800 mils

Labarraque's Solution, U. S. P. IX contains 2.5 percent of available Chlorine. Consequently this diluted solution contains 0.5 percent, which is the strength of the original Dakin's Solution. This "extemporaneous" Solution is slightly more alkaline, which, however, does not seem to be a disadvantage.

Contributed by S. M. Fass, New York City:

No. 460.

UNG. PERUVIANI COMPOSITUM.

Balsam Peru	
Oil of Cade	
Ichthyol, of each	15 Gm.
Creolin	8 Gm.
Zinc Ointment, a sufficient quantity,	
To make	500 Gm.

An excellent all-round healing and drawing salve.

No. 461.

IMPROVED CORN COLLODION.

Salicylic Acid	20 Gm.
Lactic Acid	4 mils
Extract of Cannabis	1.3 Gm.
Acetone	8 mils
Flexible Collodion, a sufficient quantity,	
To make	120 mils

No. 462.

DIARRHOEA MIXTURE.

Resorcin	8 Gm.
Bismuth Subnitrate	
Bismuth Subgallate, of each	20 Gm.
Comp. Tinct. Cardamon	125 mils
Essence of Pepsin	250 mils
Cinnamon Water, a sufficient quantity,	
To make	500 mils

No. 463.

NEURALGIA APPLICATION.

Menthol	20 Gm.
Chloroform	
Tinct. Myrrh, of each	30 mils
Alcohol, a sufficient quantity,	
To make	120 mils

Contributed by the Chairman:

No. 464.

EMULSUM OLEI LINI, THOMSON.

Thomson's Emulsion of Linseed Oil.

Thomson's Emulsion.

This emulsion has been employed since 1875 by Dr. William H. Thomson, Professor of Theory and Practice of Medicine in the Medical Department of New York University. He brought this remedy to the attention of the profession in a paper read before the New England Medical Society in December, 1888, and published in the New England Medical Monthly, March 15, 1889, and other medical journals.

Dr. Thomson's name has frequently been corrupted into "Thompson" and one of the principal ingredients in his original prescription, namely, Mucilage of Chondrus, has been replaced, to a distinct disadvantage, by Acacia.

The following is the original formula converted into the approximate metric system:

Linseed Oil	300 mils
Glycerin	15 mils
Syrup	200 mils
Diluted Hydrocyanic Acid	
Oil of Cinnamon	
Methyl Salicylate, of each	5 mils
Mucilage of Chondrus, a sufficient quantity,	
To make	1000 mils

Prepare 500 mils of mucilage of chondrus according to N. F. from 15 Gm. of Irish moss, and use this to emulsify the linseed oil. Then add syrup and other ingredients.

Contributed by William Gray, Presbyterian Hospital, Chicago:

No. 465.

MOLLINUM.

Unna's Salve-Soap.

Lard	400 Gm.
Potassium Hydroxide	56 Gm.
Alcohol, 90 percent	40 Gm.
Water	400 Gm.
Glycerin	150 Gm.

Prepare a soap from the first 4 ingredients by means of heat. Allow to stand 12 hours at 50 to 60° C. and add the glycerin.

Note: A white soap containing about 12 percent excess of fat, used as a basis for ointments for rapid absorption. It is readily washed off with water with which it forms a lather, it leaves the skin fresh and supple and makes no grease spots on linen.

No. 466.

COAL-TAR HAIR TONIC.

Resorcinol	8 Gm.
Coal-Tar Solution, N. F.	8 mils
Diluted Alcohol	240 mils

Mix well and filter.

No. 467.

VARNISH REMOVER.

Benzol	2 vol.
Acetone	1 vol.

No. 468.

ORTHOFORM OINTMENT.

Orthoform	10 Gm.
Petrolatum	90 Gm.

Note: Acts as a local anesthetic, relieving pain in hemorrhoids, etc.

No. 469.

ORTHOFORM SUPPOSITORIES.

Orthoform	4 Gm.
Cacao Butter	20 Gm.

Divide into 10 Suppositories.

Note: Acts as a local anesthetic.

No. 470.

BISMUTH CREAM.

Bismuth Subnitrate	4 Gm.
Zinc Oxide	8 Gm.
Olive Oil	120 mils
Lime Water, a sufficient quantity,	
To make	240 mils

Note: Very soothing in sunburn and erythema.

No. 471.

LOTIO CALCIS.

Calcis Lotion.

Zinc Oxide	15 Gm.
Starch	15 Gm.
Lime Water	120 mils
Rose water, a sufficient quantity,	
To make	240 mils

Note: This lotion gives good results in poison ivy treatment.