

This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + Refrain from automated querying Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at http://books.google.com/

VETERINARY HANDBOOK AND VISITING LIST

THOMAS B.ROGERS, D.V.S.

RST .R63

Digitized by GOOST

Library of the University of Wisconsin



16-F-7

VETERINARY HANDBOOK AND VISITING LIST

RY

THOMAS B. ROGERS, D.V.S.

LECTURER ON CONTAGIOUS DISEASES OF ANIMALS IN THE MEDICAL DEPARTMENT OF TEMPLE UNIVERSITY, PHILADELPHIA, PA.



PHILADELPHIA AND LONDON J. B. LIPPINCOTT COMPANY

COPYRIGHT, 1916, BY J. B. LIPPINCOTT COMPANY

PRINTED BY J. B. LIPPINCOTT COMPANY AT THE WASHINGTON SQUARE PRESS PHILADELPHIA, U. S. A.

ATRUZUI

204715 JUL 13 1916 RST

PREFACE

No claims for originality can be made for the subject matter of this little book. My work as a practitioner of veterinary medicine, as a teacher, and as a member of a State Board of Veterinary Medical Examiners demonstrated to me the necessity of a compilation on the lines followed in the book, and, with a belief in its usefulness and under the advice of veterinary, medical, and pharmaceutical friends, I submit it to what I trust will be the favorable criticism of the veterinary and pharmaceutical professions.

I have great pleasure in acknowledging the help given to me by my colleagues, Dr. Chas. E. Vander-kleed, Professor of Analytical Chemistry in the Medico-Chirurgical College of Philadelphia, who furnished the résumé of the Harrison Anti-Narcotic Law, and Dr. F. E. Stewart, Professor of Materia Medica in the same institution.

THOMAS B. ROGERS, D.V.S.

Woodbury, New Jersey, January, 1916.

COLLEGE OF AGRICULTURE UNIVERSITY OF VILCOMSIN MADISON

CONTENTS

1	PAGE
First Lines in Bacterial Therapy	1
CLASSIFICATION OF BACTERIOLOGICAL PRODUCTS USED IN VETERINARY MEDICINE	3
THE APPROXIMATE INCUBATIVE PERIOD OF THE MORE COMMON CONTAGIOUS AND INFECTIOUS DISEASES OF ANIMALS	7
Prescription Writing	8
Some Latin Phrases and Abbreviations Used in	Ü
PRESCRIPTIONS STRENGTH OF U. S. P. TINCTURES COMMONLY USED IN	13
VETERINARY MEDICINE	17
Medicine	18
Poisons and Their Antidotes	108
DURATION OF PREGNANCY IN THE DOMESTICATED ANIMAL	112
RELATIVE VALUE OF APOTHECARIES' AND METRIC MEASURE	112
Relative Value of Metric and Apothecaries' Measure	113
RELATIVE VALUE OF APOTHECARIES' AND METRIC WEIGHT	113
RELATIVE VALUE OF METRIC AND APOTHECARIES' WEIGHT	114
TABLE TO ASSIST THE BEGINNER IN PRESCRIBING LIQUIDS	114
Approximate Measures	115
RULES FOR COMPARING CENTIGRADE AND FAHRENHEIT SCALES	115
THE HARRISON ANTI-NARCOTIC LAW	116

A Veterinary Handbook and Visiting List

FIRST LINES IN BACTERIAL THERAPY

Introduction.—For centuries the practice of medicine has been conducted empirically, *i.e.*, drugs have been given in certain cases of disease because their use appeared to be beneficial in prior cases. When, in the middle of the last century, the action of remedial agents on the animal body was made the subject of physiological experimentation, the hope arose that here was a path leading to exactitude in therapeutics. Unfortunately this hope has been but partly realized, and the administration of medicine is still in great measure empirical.

The fact that recovery from an attack of an infectious or contagious disease resulted in a more or less perfect immunity to subsequent attacks of the same disorder has long been common knowledge, but it remained for Jenner to apply this knowledge in the protection of the community against smallpox by vaccination with cowpox.

Pasteur, however, may well be termed the father of bacterial therapy, and the work done by him and his successors has placed in our hands diagnostic methods of absolute accuracy, protective methods that have saved countless lives, and therapeutic procedures that give results absolutely unattainable by any other means whatever.

The Modes of Action of Bacterial Remedies.— These, however they may differ otherwise, depend upon the utilization of the germ or its product in our conflict against it, and the fact that bacterio-therapy has thus succeeded in turning the toxic properties of the disease-causing bacteria against themselves must be considered one of the marvels of modern science.

The conflict between the disease-producing germ and the invaded organism may end in the absolute triumph of the animal body and in such case not only are the invading germs destroyed, but the uninjured organism is always more or less immune to a subsequent invasion of like character.

It may end in a drawn battle, neither side being able to win while yet too powerful to lose, a condition characterized in the individual by diminished vital activity, in the germ by diminished virulence, or, lastly, the germ gaining the upper hand, may cause the death of the invaded organism.

A discussion at length of the defensive mechanism which the living body uses in its conflict with contagious disease is not allowable here; indeed, we can do no more than state that in the large it depends upon:

- 1. The power of the phagocytes (fighting cells) to encompass and destroy the invading germs.
 - 2. The degree of activity possessed by the opsonins

(certain constituents of the blood-serum) whose function is to enfeeble the invaders and thus lead the way to their destruction by the phagocytes.

CLASSIFICATION OF BACTERIOLOGICAL PRODUCTS USED IN VETERINARY MEDICINE

- A. Toxins. Used principally as diagnostic agents. Examples—tuberculin, mallein and abortin.
- B. Antitoxins. Neutralize toxins and give temporary passive immunity.
 - Examples-tetanus antitoxin, diphtheria antitoxin.
- C. Bactericidal Sera. Cause death of invading bacteria. Examples—antistreptococcus serum, antipneumococcus serum.
- D. True Vaccines. Attenuated cultures of living bacteria.

 Bio Vaccines.
 - Examples—anthrax vaccine, black-leg vaccine, give long-continued active immunity.
- E. Bacterial Vaccines—Bacterins, Necro Vaccines. Killed measured cultures of bacteria suspended in normal saline solution, give long-continued active immunity.
- F. Products of certain ultra microscopic disease-producing organisms.
 - Hog-cholera serum gives temporary passive immunity.
 - 2. Rabies vaccine gives immunity if used shortly after the introduction of the virus.

Immunizing and curative sera consist of the bloodserum of animals (usually the horse) which have been highly immunized against the toxins of bacteria (example—tetanus antitoxin) or against the action of living pathogenic bacteria (example—antistreptococcus serum). Some sera (example—antimeningococcic and antidysenteric) are produced by alternate injections of toxin and living germs, hence they are at once antitoxic and bactericidal.

The true antitoxic sera (examples—tetanus antitoxin, diphtheria antitoxin) have within themselves the necessary material for neutralizing toxins; they produce a passive immunity, *i.e.*, an immunity arising without effort on the part of the organism: an immunity from without, and this immunity is fleeting.

Bacterial vaccines (bacterins) increase the opsonins (Greek *Opsono*, I prepare for food); these are constituents of the bloom-serum which enfeeble the invading bacteria, and thus render them a more ready prey to the phagocytes (fighting cells). By stimulating the defensive organization of the animal body they increase its resistance, and thus enable it to combat the disease more readily and successfully.

The immunity they produce is active, *i.e.*, from within, and is much more prolonged than that produced by the use of the immunizing sera.

The diagnostic toxins usually produce three characteristic reactions:

- 1. A thermic reaction. Elevation of temperature.
- 2. A local reaction. More or less pronounced swelling at the point of injection.
- 3. A constitutional reaction. The patient is evidently unwell, chills or rigors may occur, the appetite

be diminished or lost, the hair stands the wrong way and the animal is listless and indifferent to his surroundings.

These reactions differ for different toxins and in different animals; thus, when using old tuberculin in making the usual subcutaneous test, the thermic reaction is usually the only one in evidence, although individual cattle may show swelling at the point of injection, or exhibit symptoms of general malaise, while "ophthalmic tuberculin" and "intradermal tuberculin" usually give rise to local reactions only.

Mallein usually causes all three reactions, the degree of swelling and the constitutional condition being perhaps of greater diagnostic value than the rise in temperature.

True Vaccines.—Examples—anthrax vaccine and black-leg vaccine. These furnish active immunity by giving the animal the disease in a mild form, the enfeebled germs increase the opsonizing powers of the blood-serum, thus rendering themselves a ready prey to the defensive cells of the body. In many cases this immunity is life-long, and one of the interesting questions to be answered in the future is why this induced active immunity persists for years.

As in naturally-acquired disease, the subjects of immunization by vaccines may present more or less evidences of sickness, although these are rarely well marked, and usually are not to be demonstrated by ordinary diagnostic methods.

The value of bacterial therapy will always be

augmented or diminished in proportion to the methods followed in its application. To ensure the greatest measure of success, we must, so far as possible, conform to the following conditions:

- 1. Only preparations of ascertained activity may be employed.
 - 2. They must be administered in proper dosage.
- 3. They must be used early in the attack of disease, not as a last resort after other medication has failed.
- 4. Rigid antisepsis must be employed in their administration.
- 5. When protective agents such as anthrax or black-leg vaccines are given, the stock must be kept off infected pasture or premises until the process of immunization is completed.
- 6. Hog-cholera serum must be given in overrather than under-dosage. No harm can accrue from an over-dose, while failure is invited if we attempt to limit the cost by cutting down the dose.
- 7. Unless conditions forbid, bacteriological remedies should be used by the only persons qualified to use them—physicians or veterinarians. To entrust their use to unskilled hands is always unwise, and usually unprofitable. The veterinarian should superintend their use, or, better, use them himself, and the druggist will serve his own and his customer's best interest by confining their use so far as may be to professional hands.

8. The druggist can, by acquiring a little knowledge of bacterial therapy, help his community and incidentally increase his business. Wounds of men or animals may become infected with tetanus bacilli, immunization with tetanus antitoxin is safe and certain. Treatment of established tetanus all too often ends in failure. It will therefore be evident that the druggist may do great service by suggesting the value of immunization against that disease whenever the opportunity arises

THE APPROXIMATE INCUBATIVE PERIOD OF THE MORE COMMON CONTAGIOUS AND INFECTIOUS DISEASES OF ANIMALS

	Authority
Anthrax 1-14 days.	Hutyra and Marek.
Black Leg 3- 5 days.	Hutyra and Marek.
Contagious Bovine Pleuro-	•
pneumonia 7-30 days.	Hutyra and Marek.
Distemper—Canine 2-15 days.	Hutyra and Marek.
Dourine15-30 days.	Hutyra and Marek.
Foot-and-Mouth Disease 2-11 days.	Hutyra and Marek.
Fowl Cholera34- 2 days.	Law.
Glanders 3- 5 days.	Law.
Hemorrhagic Septicæmia 1/4- 2 days.	Hutyra and Marek.
Hog Cholera 3-30 days.	Lynch
Influenza (Pink Eye) Equine 3-7 days.	Hutyra and Marek.
Malignant ŒdemaNone	•
Rabies:	
Dog20-60 days.	Hutyra and Marek.
Horse30-60 days.	Hutyra and Marek.
Cattle	Hutyra and Marek.
Swine15-30 days.	Hutyra and Marek.
Sheep15-21 days.	Hutyra and Marek.
Rinderpest 3- 9 days.	Hutyra and Marek.
Strangles. Colt Distemper. 1-8 days.	Hutyra and Marek.
Swine Erysipelas I- 7 days.	Hutyra and Marek.
Tetanus 5-20 days.	Hutyra and Marek.
Tuberculosis—Bovine 7-50 days.	Hutyra and Marek.

It must always be kept in mind that while bacteriological remedies are adapted to the control of a specific ailment (examples—diphtheria antitoxin to diphtheria, tetanus antitoxin to tetanus, antistreptococcus serum to disease caused by streptococci) they are not specific in the sense that they always cure the affections for which they are prescribed, and prescriber and dispenser should take pains to educate the lay public on this matter.

They are the logical remedies to use, we can usually attain better results from them than by the use of any other therapeutic measures, but they will sometimes fail us when perhaps we have good reason to believe that success will follow their use. As they are, most of them, expensive, it is to the interest alike of druggist and veterinarian to make this point clear.

PRESCRIPTION WRITING

Medicines should always be formally prescribed and the ability to write a neat, intelligible and compatible prescription will be of considerable service to the young practitioner of veterinary medicine.

It will allow the dispensing druggist to say that, whatever other qualifications the veterinarian possesses, he has evidently been a diligent student of materia medica and therapeutics, and will impress the more intelligent portion of his clientèle with the idea that *their* veterinarian is a person of some general culture, even though his "little Latin and less

Greek" find sole expression in the correct setting down of the ingredients of a prescription.

It has often been suggested that the practice of writing prescriptions in a dead language (Latin) should be made unlawful, and the following are some of the reasons why, in the opinion of the sponsors of the suggestion, all orders on the druggist from the physician or veterinarian should be written in English:

- 1. That mistakes would be less likely to occur.
- 2. That the patient or the owner of an ailing animal should know what he or his was taking, and, inferentially, sit in judgment thereon.
- 3. That an order in English could be communicated verbally to the druggist, who would then furnish the ingredients at retail prices, the owner adding the necessary diluent—thus decreasing the cost of the remedy.

The first contention may be dismissed with a word: careless people will make errors alike in Latin and English, while errors on the part of the careful practitioner will be rare in whatever language he expresses his wants.

The second position is hardly tenable; indeed, it is usually better for an individual not to know what he is taking and it is unquestionably of no advantage to the owner of a sick animal to know even the names of the drugs prescribed by the attending veterinarian.

To the layman they are but names, and he is not concerned in the methods employed; the only way

he can judge of the propriety of their administration is by the results attained. He pays the doctor to do his thinking and it is the part of wisdom to let him do it without interference.

That English should be employed for the sole purpose of allowing the purchaser to plumb the depths of the difference in price between an ounce of castor oil bought on a verbal order over the counter, and the same amount of the drug included in a formal prescription, is nonsense.

Prescribing is a scientific function of the veterinarian; dispensing, of the druggist; each is engaged in the practice of a branch of the healing art and he is entitled to a pecuniary reward proportionate to the service rendered.

The advocates of prescription-writing in English should further remember that a prescription written in Latin can be dispensed in any part of the civilized world without the necessity of employing a linguist to interpret it. This alone should constitute a sufficient reason for the retention of the present method.

When writing a prescription we must determine the most suitable drug or drugs for the case before us, consider whether or no any of them have "side actions" of such character as to preclude their use, add to these principal ingredients other remedies that may increase their therapeutic activity or lessen undesirable effects, together with a suitable menstruum or diluent, consider their compatibility, and prescribe a proper dosage. The properly trained practitioner will be careful to do all this according to certain rules of art and will divide his prescription into the necessary number of parts to form a harmonious whole.

These are: The superscription—the heading; the inscription—the names and quantities of the ingredients; the subscription—the directions to the druggist; the signa—the directions to the patient; and lastly the name of the prescriber.

To these necessities the careful prescriber will add the name of the patient and the date, and it is well to place the printed address of the practitioner on the prescription blank to facilitate reference to him if such be needed.

A prescription may consist of one or several ingredients, and while at the present day we discourage the writing of shotgun prescriptions, it is always well to ask ourselves whether a combination of drugs will give us better results than a single remedy. If nothing is to be gained by additions to the drug that most commends itself to our judgment, the employment of others constitutes a useless, if not detrimental, poly pharmacy. If, on the contrary, we prefer a combination of remedies, we must not be deterred from their use by any consideration of therapeutic fashion.

If, for example, we desire to prescribe a purgative bolus for Mr. Smith's horse, we proceed much as follows:

At the top of the prescription we write: For Mr. Smith's Bay Horse; below that at the left we place the superscription—the familiar crossed B. This may be translated as recipe—take—but it is really the ancient invocation to Jupiter, "O Jupiter, aid us," and its preservation to our day is an illustration of the conservatism of the practitioners of the healing art. Below this comes the inscription, and if the prescription consists of several ingredients we must be careful to place them in an accustomed sequence. First the base or most active ingredient; second the adjunct or aid to action; third, the corrigent or corrective deemed necessary to correct or qualify certain actions of the more active ingredients: and, lastly, the vehicle or diluent added to form them into a mass or liquid.

Next in order are directions to the compounder then the directions for administration, and, lastly, the prescriber's signature. Thus we write:

FOR MR. SMITH'S BAY HORSE

Base
r.X.Adjuvant
Corrective
Vehicle
Give immediately
J. Jones, V.S.

SOME LATIN PHRASES AND ABBREVIATIONS USED IN PRESCRIPTIONS

Word or Phrase.	Abbreviation.	Translation.
Ad	Ad libA or aaAq. bullAq. fervBis in d	To, up to. At pleasure. The vial being shaken. Every other hour. Of each. Boiling water. Hot water. Two days. Twice. Twice daily. Take, let him (or her) take.
ChartaChartula		A paper (medicated). A little paper for a powder.
Cibus	Coch. amp Coch. mag Coch. mod Coch. parv Collyr	Food. A tablespoonful. A tablespoonful. A dessertspoonful. A teaspoonful. An eye wash. To be taken to-morrow morning.
Cras nocte Cras vespere Cujus; cujuslibet Cyatho theae Cyathus; cyathus	Cuj	To-morrow night. To-morrow evening. Of which; of any. In a cup of tea.
vinarius	Cyath. c. vinar. D. det De d in d Dim D., Div	A wineglass. Give; let be given. From day to day. One half. Divide (thou). Until the bowels shall
Durante dolore Ejusdem	Ejusd	be moved (opened). While the pain lasts. The same.

SOME LATIN PHRASES AND ABBREVIATIONS USED IN PRESCRIPTIONS—Continued

Gradatim	Word or Phrase.	Abbreviation.	Translation.
Gradatim Guttat Drop by drop. Hora somni H.S. Just before retiring. Idem. Daily. In dies. In d. Daily. Injiciatur enema. In pulmento. In gruel. Inter. Between. Mane primo. Mane pr. Very early in the morning. Misce. M. Mitte. mittatur. Send, let it be sent. Nox; noctis. Nocte maneque. At night and in the morning. Oleum lini sine igne. Omn. hor. Omni bihori. Omn. bih. Omni quadrantehoræ Omn. quad. hor. Omni mane. Devery mourning. Every wo hours. Omni mane. Every morning. Every might. Partes æquales. P. æ. Equal parts. Per. Through, by. Per fistulam vitreum. Phiala prius agitata P. P. A. The bottle having firs been shaken. Poculum; pocillum Pondus civile Pondus medicinale Primo mane. Very early in the morning. Civil. (Commercial o avoirdupois weight. Primo mane. Very early in the morning. Civil (Commercial o avoirdupois weight. Primo mane. Very early in the morning. Civil in the morning. Civil (Commercial o avoirdupois weight. Very early in the morning.	Et	F. L. A	Let it be made accord-
In pulmento. In gruel. Inter. Between. Mane primo. Mane pr. Very early in the morning. Misce. Mitte mittatur. Send, let it be sent. Nox; noctis Nocte maneque. Office maneque. Office maneque. Office mane morning. Oleum lini sine igne. Office maneque.	Guttatim Hora somni Idem	Guttat H.S	Gradually, by degrees. Drop by drop. Just before retiring. The same.
Misce	Injiciatur enema In pulmento Inter		Between.
Nox; noctis Nocte maneque Nocte maneque Nocte maneque Oleum lini sine igne. Omni hora Omn. hor Omni bihori Omn. bih Omni quadrantehoræ Omni mane Omni nocte Partes æquales Per Per fistulam vitreum. Phiala prius agitata. Poculum; pocillum. Pondus civile Pondus medicinale. Primo mane Night. At night and in th morning. Cold-drawn linseed oid Every hour. Every two hours. Every quarter of an hour. Every morning. Every night. Equal parts. Through, by. Through a glass tube. The bottle having firs been shaken. A cup; a little cup. Civil. (Commercial of avoirdupois weight. Medicinal (Apothecaries') weight. Primo mane Very early in the morning.	Misce	M	morning.
Omni hora Omn. hor Omni bihori Omn. bih Omni pihori Omn. bih Omni quadrantehoræ Omni quad.hor. Omni mane Omni mane Omni mocte Partes æquales Per Per fistulam vitreum Phiala prius agitata. Poculum; pocillum. Pondus civile Pondus medicinale Primo mane Omn. hor Every hour. Every two hours. Every quarter of achour. Every morning. Every night. Equal parts. Through, by. Through a glass tube The bottle having firs been shaken. A cup; a little cup. Civil. (Commercial o avoirdupois weight. Medicinal (Apothecaries') weight. Primo mane Very early in the morning.	Nox; noctis		Night. At night and in the
Omni mane. Omni nocte Partes æquales P. æ Per Through, by. Per fistulam vitreum. Phiala prius agitata Poculum; pocillum Pondus civile Pondus medicinale Primo mane. Every morning. Every night. Equal parts. Through, by. Through a glass tube The bottle having firs been shaken. A cup; a little cup. Civil. (Commercial o avoirdupois weight. Medicinal (Apothecaries') weight. Very early in the morning.	Omni hora Omni bihori	Omn. hor Omn. bih	Every two hours. Every quarter of an
Phiala prius agitata. P. P. A. The bottle having first been shaken. Poculum; pocillum. Pocul; pocill. Cup; a little cup. Pondus civile. Civil. (Commercial of avoirdupois weight. Primo mane. Very early in the morning.	Omni nocte Partes æquales Per	P. æ	Every morning. Every night. Equal parts. Through, by.
Pondus civile	Per fistulam vitreum. Phiala prius agitata.	P. P. A	Through a glass tube. The bottle having first been shaken.
Pondus medicinale	Poculum; pocillum Pondus civile	Pocul; pocill	Civil. (Commercial or
ing.			Medicinal (Apothe- caries') weight.
10			

SOME LATIN PHRASES AND ABBREVIATIONS USED IN PRESCRIPTIONS—Continued

Word or Phrase.	Abbreviation.	Translation.
Pro ratione ætatis Pro re nata	P. r. n	According to age. According to circumstances, occasionally.
Quantum sufficiat or q. satis	Q. H	As much as is sufficient. Every hour. Each or every. The fourth; four. From which. Five; the fifth. Of which. Daily. Fresh. Take. Let it be reduced to powder.
Repetatur; repetantur	Rept	Let it (them) be repeated.
Scatula. Secundum artem. Semissis or semis. Semidrachma. Semihora. Septem. Septimana. Sic. Sic? Signa. Signetur nomine proprio. Simul. Sine. Singulorum. Si opus sit. Si vires permittant.	S. or sig	A box. According to art. A half. A half dram. A half dram. A half hour. Seven. A week. So. Is it so? Sign or mark (thou). Let it be labelled with its proper name. Together. Without. Of each. If necessary. If the strength will

SOME LATIN PHRASES AND ABBREVIATIONS USED IN PRESCRIPTIONS—Continued

Word or Phrase.	Abbreviation.	Translation.		
Statim		Immediately.		
Stet. stent		Let it (them) stand.		
Sum at talem		Let there be taken one like this.		
Supra		Above.		
Tabella	Tabel	A tablet or lozenge.		
Ter die, or ter in die.		Three times a day.		
Tere simul	Ter sim	Rub together.		
Trochischus	Troch	A troche.		
Tussis		A cough.		
Ultimo præscriptus.	Ult. præsc	The last ordered.		
Ut dictum		As directed.		
Utendum	Utend	To be used.		
Vas vitreum		A glass vessel.		
Vehiculum		A vehicle.		
Vel		Or.		
Vitellus	Vit	The yolk (of an egg).		
Vitello ovi solutus	V. O. S	Dissolved in the yolk		
		of an egg.		
Vomitione urgente	Vom urg	The vomiting being troublesome.		

STRENGTH OF U.S.P. TINCTURES COMMONLY USED IN VETERINARY MEDICINE

10 per cent.	20 per cent.	Other strengths.
Tinctura Aconiti Radicis Tinctura Belladonnæ foliorium Tinctura Benzoini composita Tinctura Cannabis Tinctura Cantharidis Tinctura Cantharidis Tinctura Cinchonæ Composita Tinctura Cinchonæ Composita Tinctura Colchici Seminis Tinctura Digitalis Tinctura Gelsemii Tinctura Gentianæ Composita Tinctura Hyoscyami Tinctura Lobeliæ Tinctura Lobeliæ Tinctura Nux Vomica Tinctura Opii Tinctura Physostigmatis Tinctura Sanguinariæ Tinctura Scillæ Tinctura Stramonii Tinctura Strophanthi Tinctura Veratrum Viride	Tinctura Calumbæ Tinctura Cinchonæ Tinctura Guaiaci Tinctura Guaiaci Ammoniata Tinctura Hydrastis Tinctura Myrrhæ Tinctura Quassiæ Tinctura Quassiæ Tinctura Rhei Tinctura Rhei Aromatica Tinctura Tolutanti Tinctura Valerianæ Tinctura Valerianæ Ammoniata	Tinctura Opii Cam phorata. A of I per cent. pow dered opium. Tinctura Ferri Chloridi 4.58 per cent. to 4.4: per cent. metallic iron Tinctura Iodi. Not less than 6.75 gm Not more than 7.2: gm. in 100 c.c. Tinctura Lavandulæ Composita. Contains 8 parts per 1000 essential oil olavender. Tinctura Moschi, 5 per cent. Tinctura Aurantii, Dul cis 5 per cent. Tinctura Cardamomi, I per cent.

DOSE TABLE OF DRUGS COMMONLY USED IN VET-ERINARY MEDICINE CALCULATED FOR THE HORSE, COW, SHEEP, FOAL, CALF, PIG AND DOG

For the Cat the Smallest Dosage for the Dog will Usually be Appropriate

The doses herein laid down are safe, but the prescriber and dispenser must understand that many, indeed most, of the drugs may be given in much larger quantity without injury, indeed with benefit. The dose of any therapeutic agent may be defined as the amount that will give us the desired result in a given case, and it will, therefore, be apparent that a posological table can only help us by suggestion it cannot be authoritative. If, for example, we would lower blood-pressure and select aconite as our therapeutic weapon, the dose will be the amount necessary to gain our end; whether we use more or less than the amount advised in a text-book is of no moment. Similarly, when giving morphia for the relief of pain, our endeavor must be to so feel our way as to relieve the symptom (pain) with the minimum possible amount of the remedy (morphia).

If we are timid we allow our patient to undergo unnecessary suffering; if over-bold, we may, while relieving his distress, leave him so deeply narcotized as to endanger his well-being. These illustrations might be indefinitely multiplied, but they will suffice to demonstrate that dosage is elastic. It must also be understood that the doses recommended pre-suppose drugs of standard quality, the official stand-

ards being those adopted by the Pharmacopæia of the United States and The National Formulary. To these we may add non-official standards adopted by certain manufacturers, whose work is necessarily somewhat ahead of even the latest editions of the official standards.

A single example will suffice: the Pharmacopæia of the United States requires Fluidextract of Belladonna Root to be of such strength that: I c.c. of finished product represents I Gm. of root; 100 c.c. of finished product contains 4 Gm. mydriatic alkaloids.

The first requirement ensures a determinate proportion between crude drug and finished product, but it will be seen that the therapeutic activity of the root is not passed upon; if the gramme of crude drug is weak the cubic centimetre of finished product is weak; if strong the fluidextract is strong, and as chemical analysis and physiological testing demonstrate that drugs vary in activity, the first requirement gives no assurance of value of the remedy. The Pharmacopæia removes this uncertainty by requiring a definite proportion of mydriatic alkaloids (active constituents of the drug) and the manufacturer can concentrate a weak product or dilute one too strong and supply a preparation of standard strength, a standardized product. Much therapeutic nihilism has resulted from the inferior quality of the crude drugs and galenical preparations employed and it is the duty alike of prescriber and dispenser to assure themselves of the quality of ingredients in prescriptions.

DOSE TABLE OF DRUGS COMMONLY USED IN VETERINARY MEDICINE CALCULATED FOR THE HORSE, COW, SHEEP, FOAL, CALF, PIG AND DOG.

FO	r the Cat the	For the Cat the Smallest Dosage for the Dog will Usually be Appropriate.	ge for the Do	g will Usually	be Appropriat	ie.
Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Acacia Gum Arabic						May begiven ad libitum to all animals.
Acetanilidum Acetanilid Co.HsNHC2H3.O	5j-5ij 4-8 gm.	5j-5ij 4-8 gm.	5ss-5j 2-4 gm.		gr. iij-vii .25 gm.	
Acetphenetidin Phenacetin	5ij-5iij	5ij-5iij	5 j- 5 iss		gr. v-gr. x	
C10.H13NO2	8-12 gm.	8-12 gm.	4-6 gm.		.36 gm.	
Acid Arsenosum Arsenous Acid White Arsenic	gr. j-v		gr. j-ij		gr.1/30-1/10	Antidotes: Lime Water, Salts of Iron & Mag- nesia.
As ₂ O ₃	.063 gm.		.0612gm.		.002006gm	
Acidum Benzoicum Benzoic Acid	3ij-3iv	5ij-5iv	5ss-5j	5ss-5j	gr. v-xv	
HC7.Hs.O2	8-15 gm.	8-15 gm.	2-4 gm.	2-4 gm.	.3-1 gm.	
Acidum Boricum Boric Acid			gr. xx-3ss			
H ₃ .BO ₃			I.3-2 gm.			
Acidum Carbolicum Carbolic Acid	gr. xv-xxx	gr. xv-xxx	gr. v-x	gr. v-x	gr. ss-j	
C ₆ —H ₆ .OH	1-2 gm.	I-2 gm.	.36 gm.	.36 gm.	.0306 gm	

Dog Notes				
Pig			·	
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Acidum Carbolicum Liquefactum Liquefied Carbolic Acid AcidCarbolic +10%=H ₂ 0						Dose a little larger than that of crystalline Carbolic Acid.
Acidum Citricum Citric Acid	3ij-3iv	5ij-5iv	5ss-5j	5ss-5j	gr. x-5ss	
Hs.C,Hs.O,	8-15 gm.	8-15 gm.	2-4 gm.	2-4 gm.	.6-2 gm.	!
Acidum Gallicum	3ij-3iv	5ij-5iv	5ss-5j	gr. x-3ss	gr. v-xx	
Gallic Acid	8-15 gm.	8-15 gm.	2-4 gm.	.6-2 gm.	.3-1.3gm.	
Acidum Hydrochloricum	3j-3ij	3ij-3iv	5ss-3j	5ss-5j	mx-xxx	Diluted with water.
Dilute Hydrochloric Acid S. G. 1.050	4-8 c.c.	8-15 c.c.	2-4 c.c.	2-4 c.c.	.6-2 c.c.	
Acidum Hydrocyanicum	mxx-x1	mxx-xl	nyv-xv	myij−v	ngi–iij	Use cautiously.
Dilute Hunter Britanic Acid Prussic Acid Prussic Acid 2% solution HCN in H ₂ O	1.3-2.6 c.c.	1.3-2.6 c.c.	.3-I c.c.	.123 c.c.	.062 c.c.	·
Acidum Lacticum Lactic Acid	5ij-5iv		3ss-3j		туу-туху	
HCs.HsOs	8-15 c.c.		2-4 c.c.		.3-1 c.c.	
Acidum Nitricum Dilu-	3j-3ij	3ij-3iv	5ss-5j	3ss-3j	mx-7ss	Diluted with water.
Dilute Nitric Acid S. G. 1.057	4-8 c.c.	8-15 c.c.	2-4 c.c.	2-4 c.c.	.6-2 c.c.	

Notes		·		
Dog				
Pig				
Sheep, calf, foal				
Сож				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Acidum Nitro-Hydro- chloricum Dilutum Dilute Nitro-Hydro-	5j-5ij	3ij-3iv	5ss- 5j	5ss- 5j	щх-3ss	Diluted with water.
chloric Acid S. G. 1.05	4-8 c.c.	8-15 c.c.	2-4 c.c.	2-4 c.c.	.6-2 c.c.	
Acidum Phosphoricum	5j-5ij	5ij-5iv	5ss- 5j	5ss-3j	myx-3ss	Diluted with water.
Dilute Phosphoric Acid S. G. 1.057	4-8 c.c.	8-15 c.c.	2-4 c.c.	2-4 c.c.	.6-2 c.c.	·
Acidum Sulphuricum	5j-5ij	5ij-5iv	5ss-3j	5ss-5j	mx-3ss	Diluted with water.
Dilute Sulphuric Acid S. G. 1.070	4-8 c.c.	8-15 c.c.	2-4 c.c.	2-4 c.c.	.6-2 c.c.	,
Acidum Sulphuricum	3ss-3j	5j-5ij	mxv-3ss	mxv-3ss	mv-xv	Well diluted with water
Aromaticum Aromatic Sulphuric Acid Elixir of Vitriol	2-4 c.c.	4-8 c.c.	I-2 c.c.	I-2 c.c.	.3-1 c.c.	
Acidum Sulphurosum Sulphurous Acid	Jj-Jij	3j-3ij	5j-5ij	5j-5ij	5ss-5ij	Diluted with water.
H ₂ SO ₃	30-60 c.c.	30-60 c.c.	4-8 c.c.	4-8 c.c.	2-8 c.c.	
Acidum Tannicum Tannic Acid	3ss-5ss	3ss-3ss	5ss-5j	gr. x- 5ss	gr. j-xv	
Tannin	2-15 gm.	2-15 gm.	2-4 gm.	.6-2 gm.	.06-1 gm.	
Acidum Tartaricum Tartaric Acid	5ij-5iv	5ij-5iv	3ss-3j	3ss-3j	gr. x-5ss	
H2C,H4Os	8-15 gm.	8-15 gm.	2-4 gm.	2-4 gm.	.6-2 gm.	

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
,						

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Aconitum Radix Aconite Roots	gr. iij –xx	gr. iij–xx			gr. ¹ / ₁₀ –ij	
Monkshood	.2-1.3 gm.	.2-1.3gm.			.00612gm.	
Aconitina	gr.1/30-1/15	gr.1/30-1/15			gr.1/200-1/100	
Aconitine	.002004gm002004gm.	.002004gm.			gm.	
Æther Fther	5j-5ij	5j-5ij	3ij-3iv	5ij-3iv	тх−2ј	
Sulphuric Ether (C2H5)20	30-60 c.c.	30-60 c.c.	8-15 c.c.	8-15 c.c.	.6-4 c.c.	
Alcohol Spirit of Wine	3j-3iij	3j-3iij	3ij-3iv	2ij-2iv	5j-5ij	Well diluted.
C2Hs.OH	30-90 c.c.	30-90 c.c.	8-15 c.c.	8-15 c.c.	4-8 c.c.	
Ale, Beer	0j-0ij	Oj-Oij				
Alcoholic Content 3%-5%	480-1000 c.c.	480-1000 c.c.				
Alõe	5ss-5iss	5j-5ij	3ij- 5vi	3ii-3iv	gr. x- 3j	Aloes for veterinary use should be of Barbadoes
The concrete juice of various species of aloes	15-45 gm.	30–60 gm.	8-24 gm.	8–15 gm.	.6-4 gm.	type, i.e. should give a rose-red reaction with Tincture of Iodine in dilute aqueous solution
Aloinum	5ij-5iij				gr. ij-xx	
Aloin	8-12 gm.				.12-1.3 gm.	

Notes				
Dog				
Pig.				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Althea						Ad libitum to all ani- mals.
Marsh-mallow Root					_	
Alumen (Potash Alum)	5ij-5iv	3ij-3iv	gr.xx-3j	gr.xx-5j	gr. v-x	Emetic dose for dog is about a dram.
Al ₂ K ₂ (SO ₄) ₄ +24H ₂ O	8-15 gm.	8-15 gm.	I.3-4 gm.	1.3-4 gm.	.36 gm.	
Ammoniæ Aqua, U.S.P.	3ss-3j	5j-5ij	5j-5ij	3j-3ij	mx-xx	Give a little oil to pro-
Contains 10 per cent. by weight of gaseous NH3 in water	15–30 c.c.	30-60 c.c.	4-8 c.c.	4-8 c.c.	.6–1.3 c.c.	rect the mucous mem- brane of the mouth and throat and be careful that the am- monia is well diluted with water.
Ammoniæ Aqua Fortior, U.S.P.	5ij-5vj	5ij-5vj	33	35	πν-x	Protect and dilute as
Stronger water of Ammonia (28 per cent. by						ior the above.
weight of gaseous Mn3 in water)	8-24 c.c.	8-24 c.c.	4 c.c.	4 c.c.	.36 c.c.	
Ammonii Benzoas Benzoate of Ammonia	3ij-3iv	5ij-5iv	5ss-5j	5ss-5j	gr. v-xv	
NH4.C7H5.O2	8-15 gm.	8-15 gm.	2-4 gm.	2-4 gm.	.3-1 gm.	
Ammoniæ Carbonas, U.S.P.	5j-5ij	Siij-Svj	gr. xv-xl	gr.xv-xl	gr.iij-xx	Full doses are emetic for dog.
Carbonate of Ammonia	4-8 gm.	12-24 gm.	I-2.6 gm.	I-2.6 gm.	.2-1.3 gm.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Ammonii Chloridum Chloride of Ammonium	5ij-5iv	5iij-5vj	gr. xv-xl	gr. xv-xl	gr. iij-x	
NH4.CI	8-15 gm.	12-24 gm.	1-2.6 gm.	I-2.6 gm.	.26 gm.	
Ammonii Valeras Valerianate of Ammonia		,			gr. ij-v	
NH4.C6H9.O2					.123 gm.	
Ammoniacum Ammoniac	3j-3ij	3j-3ij	3ij-3iv	5ij-5iv	gr. v-xxx	
Gum Ammoniac	30-60 gm.	30-60 gm.	8-15 gm.	8-15 gm.	.3-2 gm.	
Amyl Nitris Nitrite of Amyl	5ss-3j				ıığıi−v	By inhalation.
C6.H11NO	2-4 c.c.				.123 c.c.	
Antipyrina Antipyrine	5iij-5iv	5iij-5iv	5ss-5j	3ss-3j	gr. v-xx	
C,.Hb(CH3)2C2HN2O	12-15 gm.	12-15 gm.	2-4 gm.	2-4 gm.	.3- I.3 gm.	
Antimonii et Potassii Tartras	5ij-5iv	3ij-3iv		gr. iv-x	gr.1/10-ij	Should be given very carefully to dogs, as
Tartar Emetic ZK(SbO)C4H40e+H20	8-15 gm.	8-15 gm.		.246 gm. Emetic	.00612 gm.	it readily causes vom- iting in those animals.
Anisum Anise Seed	3j-3ij	5j-5ij	3j-3iv	3j-3iv	gr. x-xxx	
	30-60 gm.	30-60 gm.	4-15 gm.	4-15 gm.	i6-2 gm.	

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes

Name of drug	Horse	Сож	Sheep, calf, foal	Pig	Dog	Notes
Apomorphine Hydrochloridum Cu. HyNO ₂ HCl					gr.1/30-1/10 Subcutane- ously as an emetic	Much smaller doses are given to the dog as an expectorant.
Areca	3ss-3j		5j-5ij		gr. xv-3ij	Given to lambs in doses
Areca Nut	15-30 gm.		4-8 gm.	-	I-8 gm.	of 5j-4 gm.
Betel Nut	Tæniacide		Tæniacide		Tæniacide	For Tapeworm.
Argentum Nitras Nitrate of Silver	gr. v-x	gr. v-x	gr. j-ij	gr. j–ij	gr. 1/8-1/2	
Ag. NOs	.36 gm.	.36 gm.	.0612 gm.	.0612 gm.	.90803 gm.	
Asafœtidæ Asafetida	3ss-3j	3ss-3j	5j-5ij	3j-3iv	gr. iii-xij	
	15-30 gm.	15-30 gm.	4-8 gm.	4-15 gm.	.188 gm.	
Aspidium Male Fern	3v-3vj	3v-3vi	5ij-5vj	3ss-3j	5ss-3j	Tæniafuge.
	150-180 gm.	150-180 gm.	60-180 gm	15-30 gm.	15-30 gm.	
Atropina Sulphus Sulphate of Atropia	gr. j–iss	gr. j–ii	gr.1/16-1/12	gr.1/15-1/13	1/120-1/30	
(C _{17.} H ₂₃ NO _{3)2.} H ₂ SO ₄	.0609 gm.	.0612 gm.	.004005 gm	.004005 gm	.004005 gm .0005002 gm	
Baccæ Juniperi	5ss-5j	5ss-3j	3ij-3iv	3ij-3iv		
Jumper permed	15-30 gm.	15-30 gm.	8-15 gm.	8-15 gm.		

Notes				
Dog				
Pig				
Sheep, calf, foal				
Сож				
Horse				
Name of drug			-	

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Balsam Peruvianum Peruvian Balsam Balsam of Peru					щх-ххх .6-2 с.с.	
Balsam Tolutanum Balsam of Tolu					gr. x-xxx	
Barii Chloridum Chloride of Barium	5ij-5iv 8-15 gm. By mouth only, much dil ut ed					For hypodermic injec- tion for horse give 7- 15 grains dissolved in 10 c.c. of water. This does must be given
Ba.Cl	with water					under the skin) and must not be repeated.
Belladonna Folia	5ss-5j	5j-5iss			gr. j-v	
Deadly Nightshade	15-30 gm.	30-45 gm.			.063 gm.	
Bismuth Subcarbonas Subcarbonate of Bismuth	3ij-3iv		3j-3iss		gr. x-xxx	
(BiO),CO3+H2O?	8-15 gm.		4-6 gm.		.6-2 gm.	
Bismuth Subnitras Subnitrate of Bismuth	5ij-5iv		3j-3iss		gr. x-xxx	
Bio NO ₈ +H ₅ O?	8-15 gm.		4-6 gm.		.6-2 gm.	
Bismuth Subsalicylate Sub-salicylate of Bismuth					gr. v-x	
					.36 gm.	

Notes			,	
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				
Nam				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Buchu	3j-3ij	5j-5ij	3j-3iv	3j-3ij	gr. xv-3ss	
Ducin Leaves	30-60 gm.	30-60 gm.	4-15 gm.	4-8 gm.	I-2 gm.	
Caffeina Citrata	gr.xv-3ss	3j-3iss			gr. i-vi	For hypodermic use Winslow recommends
Citrate of Caffeine	1-2 gm.	4–6 gm.			.0636 gm	the following: B. Caf- feine, Sodii Benzoas aa gr. xv, Aquæ q. s.
Calcii Chloridum Chloride of Calcium	3iv-3j	3iv-3j			gr. v-xx	For the prevention or arrest of hemorrhage.
CaCl ₂	15-30 gm.	15-30 gm.			.3-1.3 gm	٠
Calcii Phosphatis Precipi-	3ij-3iv	5iv-3j	5j-5ij	5j-5ij	gr. v-xx	
Precipitated Phosphate						
Cas(PO ₄) ₂	8-15 gm.	15-30 gm.	4-8 gm.	4-8 gm.	.3-1.3gm.	
Calcium Carbonate	5j-5ij	5ij-5iv	5 ij- 2 iv	3ij-3iv	gr. x-3j	
Carbonate of Lime	30-60 gm.	60-120 gm.	8-15 gm.	8-15 gm.	.6-4 gm.	
Cambogii Gamboge	5ss-5j	5j-5iss			gr. v-x	A very drastic cathar- tic sometimes given in
	15-30 gm.	30-45 gm.			.36 gm.	milk rever of cattle of azoturia of the horse.
Camphora Camphor	3j-3iii	5ij-3iv	gr. xv- 3j	gr. xv- 3j	gr. iij-xx	,
C10.H16.O	4-12 gm.	8-15 gm.	I-4 gm.	I-4 gm.	.18-1.3gm.	

Notes					
Dog		·			
Pig					
Sheep, calf, foal					
Cow	i				
Horse					
Name of drug			·		

Name of drug	Horse	Сож	Sheep, calf, foal	Pig	Dog	Notes
Cantharis Cantharides	gr. v-xx	gr. v-xx	gr. iv-viij		gr. j–ij	
Spanish Fly	.3-1.3gm.	.3-1.3gm.	.255 gm.		.0612 gm	
Capsicum Cayenne Pepper	gr. xx-3j	5j- 5 ij	gr. v-xv	gr. v-xv	gr.i-viij	
Red Pepper	1.3-4 gm.	4-8 gm.	.3-1 gm.	.3-1 gm.	.065 gm.	
Carbo Animalis Animal Charcoal	5j-5ij	3j-3ij	Sij-Siv	5ij-5iv	gr. xx-3j	
Bone Black	30-60 gm.	30-60 gm.	8-15 gm.	8-15 gm.	1.3-4 gm.	
Carbo Ligni	5j-5ij	3j-3ij	5ij-5iv	3ij-3iv	gr.xx-3j	Dose same as of animal Charcoal.
Wood Charcoal	30-60 gm.	30-60 gm.	8-15 gm.	8-15 gm.	1.3-4 gm.	
Catechu	3ss-3j	5j-5ij	5j-5ij	3j-3ij	gr. v-xxx	
Gum Catechu	15-30 gm.	30-60 gm.	4-8 gm.	4-8 gm.	.3-2 gm.	
Cerii Oxalas Oxalate of Cerium					gr. iij-v	
Ce2(C2O4)1+10H2O					.183 gm.	
Chloroformum Chloroform	3j-3ij	5j-5ij	3ss-3j	3ss-3j	туіі–хх	
CH.CL.	4-8 c.c.	4-8 c.c.	2-4 c.c.	2-4 c.c.	.12-1.3 c.c.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Chloralum Hydratum Hydrate of Chloral	3j-3ij	5j-5ij	5j-5ij	5j- 5 ij	gr. x-xx	Always give chloral well diluted.
C4HCl3O+H3O	30-60 gm.	. 30-60 gm.	4-8 gm.	4-8 gm.	.6-1.3 gm.	
Cinchona Cortex Cinchona Bark	3ij-3iv	5j-5ij	3j-3iv	3j-3iv	gr. x-3j	
Peruvian Bark	8-15 gm.	30-60 gm.	4 -15 gm.	4-15 gm.	.6-4 gm.	
Cocainæ Hydrochloridum	gr. v-x				gr.1/8-3/4	
Cir.HaNO4HCI	.36 gm.				.008048 gm.	
Codeina, Codeine					gr.1/4-ii	
C18.H21NO8+H20					.015~12 gm.	
Colchici Cormus Colchicum	5ss-5ij	5ss-5ij	gr. x-xx	gr. v-x	gr.ij-viij	This drug is a somewhat active poison for the
Meadow Saffron	2-8 gm.	2-8 gm.	.6-1.3gm.	.36 gm.	.125 gm.	nerbivora.
Colchici Semen						Dose about 1/1 more
Colchicum Seed						corm.
Colocynthis Colocynth					gr. ij-iij	
Bitter Apple					.1218gm.	
Calumba Calumba Root	3ss-3j	5ss-3j	3ij-3iv	3j-3ij	3j-3ij	
-	15-30 gm.	15-30 gm.	8-15 gm.	4-8 gm.	4-8 gm.	

Notes				
		_		
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse			,	
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Creolin A resinous emulsion of	5ss-3j	5j-5i	5ss-5j	5ss-5j	mi-iv	Single dose.
8100015	15-30 c.c.	15-30 c.c.	2-4 c.c.	2-4 c.c.	.063	
Creosotum	MXV-XXX	5ss-3j	MV-XV	MV-XV	ııı̃ss−ij	Well diluted.
	I-2 c.c.	2-4 c.c.	.3-1 c.c.	.3-I c.c.	.0312 c.c.	
Creta Præparata Prepared Chalk	3j-3ij	Sij-Siv	5ij-5iv	3ij-3iv	gr. x-3j	Incompatible with sulphates and acids.
CaCOs	30-60 gm.	60-120 gm.	8-15 gm.	8-15 gm.	.6-4 gm.	
Cupri Acetas Acetate of Copper Verdiarie	gr. xv-xxx	gr. xv-xxx	gr v-x	gr v-x		Good vermifuge for horse.
	I-2 gm.	I-2 gm.	.3~.6 gm.	.36 gm.		
Cupri Sulphas Sulphate of Copper Rue Stone	5j-5ij	5j-5ij	gr.xx-xl	gr. xx-xl	gr. j-ij	Emetic dose for dog: gr. vi-xx
CuSO4+5H20	4-8 gm.	4-8 gm.	1.3-2.6gm.	1.3-2.6gm.	.0612gm.	.36- 1.3 gm.
Cusso, Kousso Brayera					3ss-3iv	Anthelmintic.
		i			2-15 gm.	
Digitalis The leaves of digitalis	gr. x-3j	5ss-5iss	gr. v-xv	gr. v-xv	gr. ss-iii	Should be given at con- siderable intervals.
purpurea Foxglove	.6-4 gm.	2-6 gm.	.3-1 gm.	.3-1 gm.	.032 gm.	Instatement applies to all of its preparations.

Dog Notes				
p, Pig		 		
Cow Calf, foal				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Elaterinum Elaterin					gr.1/20-1/12	
C20.H28.Os			•		.003005gm.	
Ergota	5ss-5j	5ss-5j	5j-5ij	3j-3ij	5ss-3j	
20817	15-30 gm.	15-30 gm.	4-8 gm.	4-8 gm.	2-4 gm.	
Eucaine Hydrochloras Hydrochlorate of Eucain Cio.HnNO4.HCl						Local anæsthetic, safer than cocaine, slightly antiseptic.
Extractum Aconiti	ngiii-xx	ngv-3ss	wij−v	w-jim	m 1/10−ij	
Fluid extract of aconite 100 c.c. = 4 gm. aconitine	.2-I.3 c.c.	.3-2 c.c.	.123 c.c.	.123 c.c.	.00612 c.c.	
Extractum Belladonnæ	gr. x-xx	gr. xx-xxx	gr. ij-iv	gr. ij-iv	gr.1/8-gr. ss	
Solid extract Belladonna						
1.4 Mydriatic Alkaloids	.6-1.3gm.	1.3-2gm.	.1224gm.	.1224gm.	.00803gm.	
Extractum Belladonnæ Radix Fluidum Fluid Extract Belladonna	3j-3ij	3ij-3iij	mv-xv	щv-хv	nyi-iij	
100 c.c. = 4 gm. mydriatic alkaloids	4-8 c.c.	8-12 c.c.	.6–I c.c.	.6-1 c.c.	.062 c.c.	
Extractum Buchu	5j-5ij	5j-5ij	3j-3iv	5j-5ij	mii−iv	
Fluid Extract of Buchu	30-60 c.c.	30-60 c.c.	4-15 c.c.	4-8 c.c.	.1224 c.c.	

۱				
Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow	,			
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Extractum Calumbæ	5ss-5j	5ss−žj	3ij-3iv	5j-5ij	3ss-3j	
Fluid Extract of Calumba	15-30 c.c.	15-30 c.c.	8-15 c.c.	4-8 c.c.	2-4 c.c.	
Extractum Cannabis In-	5j-5ij				gr.1/4-i	
Solid Extract of Indian Hemp	4-8 gm.				.01506gm.	
Extractum Cannabis Indica Fluid Extract of Indian Hemo	5iv-5j		5ss-5j (Foal)		тејј-х	In veterinary practice African or American cannabis are substi-
	15-30 c.c.		2-4 c.c.		.126 c.c.	costly Indian drug.
Extractum Capsici	щхх-3ј	5j-5ij	myv-xv	myv-xv	myj-viij	
Fluid Extract of Capsi- cum	1.3-4 c.c.	4-8 c.c.	.3-I c.c.	.3-I C.C.	.065 c.c.	
Extractum Cinchonæ	5ij-5iv	5j-5ij	3j-3iv	3j-3iv	щx-3j	
Fluid Extract of Cin- chona	8-15 c.c.	30-60 c.c.	4-15 c.c.	4-15 c.c.	.6-4 c.c.	
Extractum Colchici Sem-	3ss-3ij	5ss-5ij	mx-xx		mii-viij	
Fluid Extract of Colchi- cum Seed	2-8 c.c.	2-8 c.c.	.6-1.2 c.c.		.125 c.c.	
Extractum Convallariæ	3j-2iv	3j-3iv	nyx-xx	mx-xv	ıığv~x	
Fluid Extract of Lily of the Valley	4-15 c.c.	4-15 c.c.	.6-1.3 c.c.	.6-I c.c.	.36 c.c.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Extractum Ergotæ Solid Extract of Ergot	gr. xx-3j	gr. xx-3j	gr. x-xv	gr. v-x	gr. ij–x	
	1.3-4 gm.	1.3-4 gm.	.6-1 gm.	.36 gm.	.126 gm.	
Extractum Ergotæ	3ss-3j	58s-3j	5j-5ij	5j-5ij	5ss-5j	
Fluid Extract of Ergot	15-30 c.c.	15-30 c.c.	4-8 c.c.	4-8 c.c.	2-4 c.c.	
Extractum Eucalypti	5ss-5j	5ss-3j	5j-5ij		щх-ххх	
Fluid Extract of Eucalyptus	15-30 c.c.	15-30 c.c.	4-8 c.c.		.6-2 c.c.	
Extractum Gelsemii	5j-5ij				ığv−x	
Fluid Extract of Yellow Jasmine	4-8 c.c.				.36 c.e.	
Extractum Gentianæ	3ss-3j	3j-3ij	3j-5ij	5j-5ij	IRV-XXX	
Fluid Extract of Gentian	15-30 c.c.	30-60 c.c.	4-8 c.c.	4-8 c.c.	.3-2 c.c.	
Extractum Gossypii Rad-	3ss-3j	3ss-3j	5ss-5j	3ss-3j	mv-xx	
Fluid Extract of Cotton Root Bark	15-30 c.c.	15-30 c.c.	2-4 c.c.	2-4 c.c.	.6-1.3 c.c.	
Extractum Hæmatoxyli Solid Extract of Logwood	3ss-3iv	3j-3vi	5ss-3j	3ss-3j	gr. v-xv	
	2-15 gm.	4-24 gm.	2-4 gm.	2-4 gm.	.3-1 gm.	

Notes				
Dog				
Pig				
Sheep, calf, foal			·	
Сож				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Extractum Hamamelidis Foliorum Fluidum	3j-3ij				5ss-5ij	
Fluid Extract of Witch Hazel	30-60 c.c.				2-8 c.c.	
Extractum Hydrastis	3ij-5j		5j-5ij	5j-5ij	ту∨-5ј	Glycerite of Hydrastis
Fluid Extract of Golden Seal	8-30 c.c.		4-8 c.c.	4-8 c.c.	.3-4 c.c.	
Extractum Hyoscyami	5ss-5j	3ss-3j	5j-5iss	3j-5iss	myv-xv	
Fluid Extract of Henbane	15-30 c.c.	15-30 c.c.	4-6 c.c.	4-6 c.c.	.3-1 c.c.	
Extractum Hyoscyami	gr. xx-3j	5ss- 3j	gr. v-x	gr. v-x	gr. ss-ij	
Solid Extract of Henbane	1.3-4 gm.	2-4 gm.	.36 gm.	.36 gm.	.0312 gm.	
Extractum Ipecacuanhæ	5j-5ij	5ij-5iv	5ss-5j	nyxv-xxx	mxv-xxx	
Fluid Extract of Ipecac-	4-8 c.c.	8-15 c.c.	2-4 c.c.	I-2 c.c. Emetic	I-2 c.c. Emetic	
Extractum Nucis Vomicæ	5j-5ij	5j-5ij	тухх-ххх	mx-xx	ııyi−ij	
Fluid Extract of Nux Vomica	4-8 c.c.	4-8 c.c.	I.3-2 c.c.	.6-1.3 c.c.	.0612 c.c.	
Nucis Vomicæ	gr.vij-xv	gr.vij-xv	gr. iiss-v	gr. j–ij	gr.1/8-1/4	
Vomica	.5-1 gm.	.5-1 gm.	.153 gm.	.0612gm.	.0612gm008016 gm.	

Notes					
Dog					
Pig					
Sheep, calf, foal					
Cow				,	
Horse			·		
Name of drug		-			

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Extractum Pilocarpi	Sij-Siv	5ij-5iv	5ss-3j	5ss-5j	nyv-xxx	,
Fluid Extract of Pilocar- pus	8-15 c.c.	8-15 c.c.	2-4 c.c.	2-4 c.c.	.3-2 c.c.	
Extractum Quassiae	3j-3ij	5j-5ij	5ij-5iv	5j-5ij	5ss-5ij	
Fluid Extract of Quassia	30-60 c.c.	30-60 c.c.	8-15 c.c.	4-8 c.c.	2-8 c.c.	
Extractum Rhei Fluidum Fluid Extract of Rhu-	3j-3ij		5j-5ij		5j-5ij	
Daro	30-60 c.c.		4-8 c.c.		4-8 c.c.	
Extractum Sabinae	5j-5ij	3j-3ij			myv-xv	·
Fluid Extract of Savine	30-60 c.c.	30-60 c.c.			.3-I c.c.	
Extractum Scillae	5j-5ij	5ij-5iv	mxv-xxx	mx-xv	mi-v	
Fluid Extract of Squill	4-8 c.c.	8-15 c.c.	I-2 c.c.	.6-I c.c.	.063 c.c.	
Extractum Sennae	3iv-3v	3iv-3v	3j-3ij	5ss-3j	3j-3iv	
Fluid Extract of Senna	120-150c.c.	120-150c.c.	30-60 c.c.	15-30 c.c.	4-15 c.c.	
Extractum Taraxaci	3j-5ij	5j-5ij	3ij-3iv	3j-3ij	3j-3ij	
Fluid Extract of Dande- lion	30-60 c.c.	30-60 c.c.	8-15 c.c.	4-8 c.c.	4-8 c.c.	:

Notes		,		1	
Dog					
Pig					
Sheep, calf, foal					
Сож				;	
Horse					
Name of drug					

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Extractum Valerianae	5j-5ij	5j-5ij	3j-3ij	5j-5ij	тух-5ј	
Fluidum Fluid Extract of Valerian	30-60 c.c.	30-60 c.c.	4-8 c.c.	4-8 c.c.	.6-4 c.c.	
Extractum Veratri	5ss-5j	5j-5ij	mxx-xxx	щх-хх	ng 1/10-i	
Fluid Extract of Vera- trum	2-4 c.c.	4-8 c.c.	1.3-2 c.c.	.6-1.3 c.c.	.00606 c.c.	
Extractum Zingiberis	3ij-3iv	5j-5ij	5j-5ij	5j-5ij	nyv- xv	
Fluid Extract of Ginger	8-15 c.c.	30-60 c.c.	4-8 c.c.	4-8 c.c.	.3-I c.c.	
Fel Bovis					gr. v-xv	
					.3-1 gm.	
Perri Hydroxidum Cum Magnesii Oxido						Given in any desired amount and repeated as needed for all ani-
Antidote for Arsenic						mals.
Ferri et Potassii Tartras					gr. v-x	
Potassio Tartrate of Iron					.36 gm.	
Ferri et Quiniæ Citratis					gr. v-x	
Citrate of Iron and Qui-					.36 gm.	

Notes		,			
Dog					
Pig					
Sheep, calf, foal					
Cow					
Horse			·		
Name of drug	;			÷	

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Ferrum Redactum Reduced Iron	5j-5ij	5ij-5iv	gr.xx-xxx	gr.xx-xxx	gr. j-v	
Quevennes Iron	4-8 gm.	8-15 gm.	I.3-2 gm.	1.3-2 gm.	.063 gm.	
Ferri Sulphas Sulphate of Iron	5j-5ij	3ij-3iv	gr. xx-xxx	gr.xx-xxx	gr. i-v	
FeSO4+7H2O	4-8 gm.	8-15 gm.	1.3-2 gm.	1.3-2 gm.	.063 gm.	
Fœnugrecum	5j-5ij	5j-5ij	3ij-3iv			
Fenugreek	30-60 gm.	30-60 gm.	8-15 gm.			
Formalin						External use and as dis- infectant.
Formaldehyde						
Frangula					5ss-5j	Fluid extract is given in same dose.
Buckthorn					2-4 gm.	
Gelsemium Radix	3j-5ij				gr. v-x	
Yellow Jasmine	4-8 gm.				.36 gm.	
Gentiana	3ss-3j	3j-3ij	5j-5ij	3j-3ij	gr. v-xxx	
Gentian	15-30 gm.	30-60 gm.	4-8 gm.	4-8 gm.	.3-2 gm.	

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
	. ,					
						1
	,					

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Glycerinum	3j-3ij	Sij-Siv	3ss-5j	5ss-5j	5ij-5vj	May be used in same doses undiluted to
Glycerin	30-60 c.c.	60-120 c.c.	15-30 c.c.	15-30 c.c.	8-12 c.c.	produce rapid evacua- tion of the lower bowel in all animals.
Glycyrrhiza Radix	3j-3ij	5j-5iv	5ss-5j			
Licorice Root	30-60 gm.	30-120 gm.	15-30 gm.			
Granatum					3ss-3iss	Vermifuge for dog or cat.
Pomegranate					2-6 gm.	
Heroin				,	gr.1/24-1/6	
Diacetylmorphine					.002501gm.	
Hydrastis	3ij-5j		5j-5ij	5j-5ij	gr. v-3j	
Golden Seal	8-30 gm.		4-8 gm.	4-8 gm.	.3-4 gm.	
Hydrastin	gr.xv-3ss				gr. iij-v	
Resin of Hydrastin	I-2 gm.				.183 gm.	
Hydrastinæ Hydrochloridum	gr. i–ii				gr.1/12-1/6	
Hydrochloride of Hydras- tine Cn. Hn NO1HC1	.0612gm.				.00501gm.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Сож				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Hydrargyrii Chloridum Corrosivum Corrosive Chloride of Mercury	gr. v-vij	gr. v-vij	gr. ij	gr. ij	gr.1/30-1/8	Should be given in very dilute aqueous solution only.
Bichloride of Mercury Corrosive Sublimate Hg.Cl2	.35 gm.	.35 gm.	.12 gm.	.12 gm.	.002008gm.	
Hydrargyrum Chloridum	5ss-5j	3v-vi	gr. v-xv	gr. ss-v	gr. ss-ij	
Mild Chlorideor Mercury Calomel HgCl	2-4 gm.	20-24 gm.	.3-I gm.	.033 gm.	.03-:12gm.	
Hydrargyrum Cum Creta			gr. x-xv	gr. ij-x	gr. j-x	
Grey Powder			.6-I gm.	.126 gm.	.066 gm.	
Hydrargyrum Massa					gr. j-x	
Blue Pill					.066 gm.	
Hydrogen Dioxid	35-31	3j-3ij	5iv-3j	5j-5ij	5ss-5j	
H ₂ .O ₂	30-60 c.c.	30-60 c.c.	15-30 c.c.	4-8 c.c.	2-4 c.c.	
Hyoscyami Folia	3ss-3j				gr. v-xv	
Henbane Henbane	15-30 gm.				.3-I gm.	
Hyoscyaminæ Hydrobro-	gr. j-ij				gr.1/60-1/30	Hyoscyamine is iso-
Hydrobromide of Hyo- scvamine						
C17H23NO3HBr	.0612gm.				.001002gm.	

Notes	·			٠.
Dog				
Pig				
Sheep, calf, foal				•
Сож				
Horse			·	· ;
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Hyoscyaminæ Sulphas Sulphate of Hyoscyamine	gr. j-ij					
(C ₁₇ , H ₂₂ NO ₈) ₂ H ₂ SO ₄	.0612gm.					
Hyoscinæ Hydrobromi-	gr.1/6-1/4				gr.1/150-1/100	Cerebral sedative, para-
Hydrobromide of Hyo-						lyzes spinal cord.
Scine C ₁₇ .H ₂₁ NO4.HBr+3H ₂ O	.001015gm.				.0004- .0006 gm.	
Ipecacuanha Ipecac	5j-5ij	3ij-3iv	3ss-3j	gr.xv-xxx I-2 gm.	gr.xv-xxx I-2 gm.	
	4-8 gm.	8-15 gm.	2-4 gm.	Emetic	Emetic	
Jalapa					5j-5ij	One third dose for small
Jalap					4-8 gm.	dog, 1.e., not over one dram for cat.
Kamala	585-76j				3i-5ii	Vermifuge.
Rottlera						•
	15-30 gm.				4-8 gm.	
Kino	5ss-5j	3j-3ij	5j-5ij	5j-5ij	gr. v-xxx	
Gum Kino	15-30 gm.	30-60 gm.	4-8 gm.	4-8 gm.	.3-2 pm.	
Linum Linseed Flax Seed						Dose ad libitum to the herbivora.
	_	_		_	_	

Notes				
Dog				
Pig				
Sheep, calf, foal	·			
Cow				
Horse				
Name of drug			` \	

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Liquor Ammonii Acetatis Solution of Acetate of	5ij-5iv	5ij-5iv	5ss-5j	5ss-5j	5ij-5j	Best dispensed freshly made. Incompatible
Ammonia Spt. Mindererus	60-120 c.c.	60-120 c.c.	15-30 c.c.	15-30 c.c.	8-30 c.c.	with acids or alkalies.
Liquor Calcis	Siv-Svj	Siv-Svj	5j-5ij	5j-5ij	3j-5j	
Lime Water	120-180 c.c.	120-180c.c.	30-60 c.c.	30-60 c.c.	4-30 c.c.	
Liquor Cresolis Comp.	588-5j	Jss-Jj	5ss-3ij	5ss-5ij	mi-x	Well diluted.
A potash soap of cresols	15-30 c.c.	15-30 c.c.	2-8 c.c.	2-8 c.c.	.066 c.c.	
Liquor Ferri Subsulphatis Solution of Subsulphate	3j-3ij	5j-5ij	nyv-xv	MV-X	mgij-v	.⊒ α
of Iron Monsell's Solution	4-8 c.c.	4-8 c.c.	.3-I c.c.	.312 c.c.	.123 c.c.	hemorrhage. Give
Liquor Ferri Chloridi	3ij-3iv	3ij-3iv	MV-XV	ıığv~x	wij-v	Well diluted.
Solution of Chloride of Iron	8-15 c.c.	8-15 c.c.	.3-I C.C.	.312 c.c.	.123 c.c.	
Liquor Iodi Compositus Compound Solution of	3ij-3iv	3ij-3iv	5ss-3j		ngij-x	Well diluted with water.
Lugol's Solution	8-15 c.c.	8-15 c.c.	2-4 c.c.		.126 c.c.	
Liquor Potassii Arsenitis Solution of Arsenite of	3ij-3j	3ij- 3j	3j-3ij	3j-3ij	mij-x	
Potash Fowler's Solution	8-30 c.c.	8-30 c.c.	4-8 c.c.	4-8 c.c.	.126 c.c.	

41							
5	Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
1.							
1				-	·		
l							
l							
1							
إ							
1							
J							

Liquor Potassii Hydroxidi	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
TO THE OTHER PRINCES	5ss-5j	5ss-5j	3ss-3ij	3ss-3j		Well diluted with oil or water.
Potash 5% – KOH	15-30 c.c.	15-30 c.c.	2-8 c.c.	2-4 c.c.		
Liquor Sodæ Chlorinatæ Solution of Chlorinated Soda Labarraque's Solution			,			Useful in diluted aqueous solution for a dressing for wounds where dead or dying tissue is present.
Lithii Benzoas Benzoate of Lithium	5ij-5iv	3ij-3iv	3ss-3j	5ss-5j	gr. v-xv	
C.H.CO.OLi	8-15 gm.	8-15 gm.	. 2-4 gm.	2-4 gm.	.3-1 gm.	
Lithii Citras Citrate of Lithium					gr. v-xx	
Lis. CeHs. 07+4H20					.3-1.3gm.	
Lithium Carbonate					gr. iij-x	
Lisco,				-	.26 gm.	
Magnesii Carbonas Carbonate of Magnesia			5j-5ij		gr. v-3j	
MgCO ₃) 4Mg(OH)2+ 5H2O			4-8 gm.		.3-4 gm.	
Magnesii Oxidum "Light Magnesia"			5j- 5ij		gr. v-3j	
MgO			4-8 gm.		.3-4 gm.	

Notes					
Dog					
Pig					
Sheep, calf, foal					
Cow		·			
Horse				·	
Name of drug					

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Magnesii Oxidum Ponderosum ''Heavy Magnesia''			5j-5ij 4-8 gm.		gr. v-5j	
Magnesii Sulphas Sulphate of Magnesia Epsom Salts MgSO ₄ +7H ₂ O	5ij-3viij 60-240 gm.	3xvj-3xxxij 500-1000gm.	5ij-5vi 60-180 gm.	51j-51v 60-120 gm.	5j-5iv 4-15 gm.	If purgative effect is desired give concen- trated solution; dilute solution if for diuretic.
Mass Perri Carbonatis Mass of Perrous Car- bonate Vallet's Mass					gr. j-v .o63 gm.	
Menthol Peppermint Campher C10H19OH						
Misturæ Cretæ Chalk Mixture			30-60 c.c.		5ij-5j 8-30 c.c.	
Molasses	3viij-3xvj 500-1000 c.c.	5viij-5xvj 5viij-5xvj 500-1000c.c.	5ij-5vj 60-180c.c.			
Morphine Sulphas Sulphate of Morphia (Cn.HisNOs)2HsSOs+ SHsO	gr.iij-x .26 gm.	gr.iij-x .26 gm.	gr.ss-ij .0312gm.	r.ss-ij gr.1/10-1/2 .0312gm00603gm.	gr.1/8-1/2	

Notes				
Dog				
Pig	-			
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Myrrha	5ij-5iv	5ij-5iv	3ss-3j	5ss-5j	gr. v-xxx	
Gum Myrrh	8-15 gm.	8-15 gm.	2-4 gm.	2-4 gm.	.3-2 gm.	
Naphthol Beta Naphthol	5ij-5iij				gr. j-x	Kills round and tape- worm. Give in cap-
C10.H70H	8-12 gm.				.066 gm.	useful for ringworm.
Naphthalenum Naphthalin	Sij-Siv				gr. j-xx	Give in capsule.
C10.H8	8-15 gm.				.06-1.3 gm.	
Nucis Vomicæ Pulvis Powdered Nux Vomica	5j-5ij	3j-3ij	gr.xx-xl	gr. x-xx	gr. j–ij	Should be substituted by its strychnia equiv-
Poison Nut, Quaker Button, Dog Nut	4-8 gm.	4-8 gm.	1.3-2.6gm.	.6-1.3gm.	.0612 gm.	account of the need of absolute accuracy of dosage of this drug in dogs.
Oleoresinæ Aspidii	5iij-5vj	5iij-5vj	5j-5ij	3j-3ij	щхv-3ј	
Oleoresin of Male Fern	12-24 c.c.	12-24 c.c.	4-8 c.c.	4-8 c.c.	I-4 c.c.	
Oleoresinæ Capsici	mx-xxx	5ss- 5j	my-viij		mgı/4−j	
Oleoresin of Capsicum	.6-2 c.c.	2-4 c.c.	.065 c.c.	•	.01506 c.c.	
Oleoresinæ Zingiberis	3ss- 3iss	3ss-3iss	mx-xx		gr. j-v	
Oleoresin of Ginger	2-6 gm.	2-6 gm.	.6-1.3 gm.		.063 gm.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Сож				
Horse	,			,
Name of drug		:		

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Oleum Anisi	MXX-XXX		WV-XV		ıığı-v	
Oil of Anise	1.3-2 c.c.	;	.3-I c.c.		.063 c.c.	
Oleum Eucalypti	3j-3ij				ngij-x	
Oil of Eucalyptus	4-8 c.c.				.126 c.c.	
Oleum Gossypii Seminis	5xvj-5xxxij	5xvj-5xxxij 5xvj-5xxxii	5iv-5viii	5iv-5viii	5ss-5j	
Cotton Seed Oil	500-1000c.c.	500-1000c.c.	120-240 c.c.	120-240 c.c.	15-60 c.c.	
Oleum Juniperi	3j-3ij	3j-3ij	nx-xx	щх-хх	nyii-x	
Oil of Juniper	4-8 c.c.	4-8 c.c.	.6–1.3 c.c.	.6-1.3 c.c.	.126 c.c.	
Oleum Lini	5viij-5xvj	3xvj-3xxxij	5vj-5xij		5ss-3ij	
Linseed Oil	250-500c.c.	500-1000c.c.	180-360c.c.		15-60 c.c.	
Oleum Menthæ Piperitæ	mxv-xxx	mxv-xxx	x-∆ăı	nyv-x	w-jw	
Oil of Peppermint	I-2 c.c.	I-2 c.c.	.36 c.c.	.36 c.c.	.063 c.c.	
Oleum Morrhuæ	5ij-5iv	5ij-5iv	5ss-5j		3j-3iij	
Cod-Liver Oil	60-120 c.c.	60-120 c.c.	15-30 c.c.		4-12 c.c.	

Notes				
Dog			-	
Pig				
Sheep, calf, foal				
Сож				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep,	Pig	Dog	Notes
			call, loai			
Oleum Olivæ	3xvj- 3xxxij	Javj- Jaxij Javj- Jaxij	5iv-5viij	5iv-5viij	5ss-5ij	
Olive Oil	500-1000c.c.	500-1000c.c.	120-240c.c.	120-240c.c.	15-60 c.c.	
Oleum Ricini	Sviij-Sxvj	3xvj-5xxiv	Sij-Siv	Sij-Siv	5ss-5ij	
Castor Oil	250-500c.c.	500-750c.c.	60-120с.с.	60-120c.c.	15-60 c.c.	
Oleum Sabinæ	5ij-5iv				wigi−v	
Oil of Savine	8-15 c.c.				.063 c.c.	
Oleum Terebinthinæ Oil of Turpentine	5ss-5ij	5ss-5j	3j- 3iij	5j-5ij	nyv-xx	
Spirit of Turpentine	15-60 c.c.	15-30 c.c.	4-12 c.c.	4-8 c.c.	.3-1.3 c.c.	
Oleum Tiglii	щхv- 5 ј	5ss- 5j	ığv∽x	туу-х	myss-iij	
Croton Oil	I-4 c.c.	2-4 c.c.	.36 c.c.	.36 c.c.	.0318 c.c.	
Opium The concrete juice of the	3j-3ij	3ij-2iv	gr. x-xxx	gr. v-xx	gr.ss-iij	
opium poppy	4-8 gm.	8-15 gm.	.6-2 gm.	.3-1.3gm.	.032 gm.	
Pancreatinum					gr. v-xv	
Pancreatine .					.3-1 gm.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Petrolatum Vaseline Cosmoline						May be given ad libitum as a non-absorbable intestinal demulcent.
Pepsinum			gr. x-3j		gr. ij-v	
Pepsin			.6-4 gm.		.123 gm.	
Physostigma	gr.xv-xxx				gr.1/4-j	
Calabar Bean	I-2 gm.				.01506 gm.	
Physostigminæ Salicylas	gr.iss-iii	gr.iss-iij			gr.1/100-1/30	
Salicylate of Physostig- mine	.0918gm.	.0918gm.			.0006002gm.	
Physostigminæ Sulphas	gr.iss-iij	gr.iss-iij			gr.1/1000-1/30	
mine or Fnysostig-	.0918gm.	.0918gm.			.0006-,002gm.	
Pilocarpinæ Hydrochlori-	gr. ii-v	gr. v-x	gr. j		gr.1/10-1/3	
Hydrochloride of Pilo- carpine	.123 gm.	.36 gm.	.06 gm.		.00602 gm.	
Pilocarpinæ Nitras	gr. ij-v	gr. v-x	gr. j		gr.1/10-1/3	
Minate of Filocalpine	.123 gm.	.36 gm.	.06 gm.		.00602 gm.	
Pilocarpus	3ij-3iv	5ij-5iv	5ss-5j	5ss-5j	gr. v-3j	
(The Leaflets)	8-15 gm.	8-15 gm.	2-4 gm.	2-4 gm.	.3-4 gm.	

Notes			·	
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Pix Burgundica	5j-5iij				gr.xx-xi	
Burgundy Pitch	30-90 gm.				I-2gm.	
Pix Liquida Tar Dian Tar	3ss-3j	5ss-5j	5j-5ij	5j-5ij	gr.xv-3j	
rine lar	15-30 gm.	15-30 gm.	4-8 gm.	4-8 gm.	I-4 gm.	
Plumbi Acetas	5ss-3j	5ss-5j	gr.xv-xx	gr.xv-xx	gr. j-ij	
Sugar of Lead Pb(C ₂ H ₃ O ₂) ₂ +3H ₂ O	2-4 gm.	2-4 gm.	I-1.3gm.	I-1.3gm.	.0612gm.	
Potassii Acetas Acetate of Potash	3ss-3j	5ss-5j	5ss-5j	5ss-3j	gr. v-xx	Well diluted with water.
KC ₂ H ₂ O ₂	15-30 gm.	15-30 gm.	2-4 gm.	2-4 gm.	.3-1.3gm.	
Potassii Bicarbonas Bicarbonate of Potash	5ss-3j	3ss-3j	5ss-5j	5ss-3j	gr. v-xx	Well diluted with water.
KHCO,	15-30 gm.	15-30 gm.	2-4 gm.	2-4 gm.	.3-1.3gm.	
Potassii Bromidi Bromide of Potassium	5ss-5ij	5ss-5ij	5ss-5iv	3ss-3iv	gr. v-3j	The bromides of sodium, calcium, lithium and
KBr	15-60 gm.	15-60 gm.	2-15 gm.	2-15 gm.	.3-4 gm.	strontium may begiven in the same doses.
Potassii Carbonas Carbonate of Potash	388−8j	3ss-3j	5ss- 5j	5ss-5j	gr. v-xx	Well diluted with oil or water.
K ₂ CO ₂	15-30 gm.	15-30 gm.	2-4 km.	2-4 gm.	.3-I.3gm.	

Notes		·		
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Potassii Citras	3ss-3j	3ss-3j	5ss-3j	5ss-5j	gr. v-xx	Well diluted with water.
K3C6.H5O7+H2O	15-30 gm.	15-30 gm.	2-4 gm.	2-4 gm.	.3-I.3gm.	
Potassii Chloras Chlorate of Potash	3ss-3j	3ss-3j	3ss-3j	3ss-3j	gr. v-xx	X
KC103	15-30 gm.	15-30 gm.	2-4 gm.	2-4 gm.	.3-I.3gm.	
Potassii Cyanidum Cyanide of Potassium						Used in veterinary practice to destroy animals. Its action is hastened by giving a dilute acid after it.
Potassii Iodidum Iodide of Potash	5ij-5iv	3ij-5iv	gr.xv-xxx		gr. ij-x	Sodiumiodideandsyrup of hydriodic acid are
KI	8-15 gm.	8-15 gm.	I-2 gm.		.126 gm.	given in the same dosage.
Potassii Nitras Nitrate of Potash	5ss-3j	3ss-3j	5ss-5j	5ss-5j	gr. v-xx	Well diluted with water.
Saltpetre KNO ₃	15-30 gm.	15-30 gm.	2-4 gm.	2-4 gm.	.3-I.3gm.	
Potassii Permanganas Permanganate of Potas-	gr.xv-xx		gr. ii-v		gr. j-ij	Give to horse in a pint of water, to dog in pill
sium KMnO4	I-I.3 gm.		1123 gm.		.0612gm.	or tablet with kaolin excipient.
Potassii Sulphuretum Sulphuret of Potassium	5ij-5iv	5ij-5iv	5ss-5j	5ss-5ij	gr. ij-x	Also used externally in eczema.
Liver of Sulphur	8-15 gm.	8-15 gm.	2-4 gm.	2-8 gm.	.126 gm.	

II							
6	Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
l l							
						·	
- 1							

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Pulvis Cretæ Compositus			3j-3iv		gr. x-3j	
CompoundChalkPowder	i		4−15 gm.		.6-4 gm.	
Pulvis Glycyrrhizæ Com- positus			5j-5iss		gr. x-xxx	
Compound Licorice Powder			4-6 gm.		.6-2 gm.	
Pulvis Jalapæ Composi-					gr. xv-3j	
Compound Jalap Powder					I-4 gm.	
Pulvis Kino Compositus			3j-3iss		gr. x-xxx	
Compound Kino Powder			4-6 gm.		.6-2 gm.	
Pulvis Rhei Compositus Compound Rhubarb			5ss-3j	 	25-21	
Dr. Gregory's Powder			15-30 gm.		4-8 gm.	
Quassia	3j-3ij	:	5ij-5iv	5j-5ij	3j-3ij	Valuable anthelmintic
Quassia Wood	30-60 gm.		8-15 gm.	4-8 gm.	4-8 gm.	
Quercus Alba	3ss-3j	3j-3ij	5j-5ij	5j-5ij	gr. x-xxx	*
White Oak Bark	15-30 gm.	30-60 gm.	4-8 gm.	4-8 gm.	.6–2 gm.	

Name of drug	Horse	Cow	Sheep, calf, foal	Pig ,	Dog .	Notes
				•		

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Resina Podophylli	5j-5ij	3j-3ij			gr. j-ij	
Resin of Podophyllum	4-8 gm.	4-8 gm.			.0612gm.	
Resina Resin Rosin	3ss-5j					
	15-30 gm.					
Resinæ Scammonii				3j-5ij	gr. v-3j	
Resin of Scammony				4-8 gm.	.3-4 gm.	
Resorcinol Resorcin	5j-5ij		5ss- 5j	5ss-3j	gr. ij-v	
C ₆ H ₄ (OH ₂)	4-8 gm.		2-4 gm.	2-4 gm.	.123 gm.	
Rhamnus Purshiana Cascara Sagrada California Buckthorn					gr. v-xxx	
					.3-2 gm.	
Rheum	3j-3ij		5j-5ij		3ss-3ij	
Rhubarb	30-60 gm.		4-8 gm.		2-8 gm.	
Saccharum Lactis	3j-3ij				3j-3ij	Diuretic.
Milk Sugar	30-60 gm.				4-8 gm.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug			·	

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Santoninum Santonin	gr.xv-3iv				gr. ¹ / ₄ - ¹ / ₂ .01503gm. Puppies	17.
C15.H18.O3	I-15 gm.				gr. 1-v .063 gm. Dogs	
Scammonium Scammony			5ij-5iv 8-15 gm.		5ss-5j	
Scilla	5j-5ij	5ij-5iv	gr. xv-xxx		gr. j-v	
minba	4-8 gm.	8-15 gm.	I-2 gm.		.063 gm.	
Senna	3ij-3v	3iv-3v	3j-3ij	3ss-3j	3j-3iv	
Denna Leaves	60-150c.c.	120-150 gm.	30-60 gm.	15-30 gm.	4-15 gm.	
Sinapis Alba White Mustard	5ij-5iv	5iv-3j	5j-5ij	3j-3ij	gr. x-xv	
Sinapis Nigra Black Mustard	8-15 gm.	15-30 gm.	4-8 gm.	4-8 gm.	.6-I gm.	
Sodii Benzoas Benzoate of Sodium	Sij-Siv	5ij-5iv	3ss-3j	3ss-3j	gr. v-xv	
NaC7H5O2	8-15 gm.	8-15 gm.	2-4 gm.	2-4 gm.	.3-I gm.	
Sodii Bicarbonas Bicarbonate of Sodium	3ss-3ij	3ss-3ij	5ss-5ij	5ss-5ij	gr. v-xxx	
NaHCO ₃	15-60 gm.	15-60 gm.	2-8 c.c.	2-8 c.c.	.3-2 gm.	•

Notes		**************************************	:		
Dog					
Pig		f			
Sheep, calf, foal					
Cow					·
Horse					
Name of drug	; ; ;				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Sodii Bisulphis Bisulphite of Sodium	3ss-3j	3j-3ij	5ss-5ij	5ss-3j	gr. v-xxx	
NaHSO ₃	15-30 gm.	30-60 gm.	2-8 gm.	2-4 gm.	.3-2 gm.	
Sodii Boras Borax						Mild alkaline antiseptic.
Na2B4.O7+IOH2O						
Sodii Chloridi Chloride of Sodium	35-31	Siv-Sviij	388-3j			
NaCl	30-60 gm.	120-240 gm.	15-30 gm.			
Sodii Phosphas Phosphate of Sodium	5ij-5iv	3xvi-3xxiv	3j-3iv		5j-5ij	
Na2HPO4+12H2O	60-120gm.	500-750 gm.	30-120gm.		4-8 gm.	
Sodii Sulphas Sulphate of Sodium	5iv-5viij	3xvj-3xxiv	Jij-Jiv			
Glauber's Salts Na ₂ SO ₄ +10H ₂ O	120-240 gm.	500-750 gm.	60-120gm.			
Sodii Sulphis Sulphite of Sodium	3ss-3j	3j-3ij	5ss-5ij	5ss-5ij	gr. v-xxx	
Na2SO3+7H2O	15-30 gm.	30-60 gm.	2-8 gm.	2-8 gm.	.3-2 gm.	
Sodii Thiosulphas Hyposulphite of Sodium	3j-3ij	Sij-Siv	3ss-3ij	5ss-5ij	gr. v-xxx	
Na2S2O3+5H2O	30-60 gm.	60-120 gm.	2-8 gm.	2-8 gm.	.3-2 gm.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Spiritus Ætheris Com-	3ss-3j	3ss-3j	3ij-3iv	Sij-Siv	щx-5j	
positus CompoundSpiritofEther Hoffman's Anodyne	15-30 c.c.	15-30 c.c.	8-15 c.c.	8-15 c.c.	.6-4 c.c.	
Spiritus Ætheris Nitrosi Spirit of Nitrous Ether	35-31	3j-3iv	5ij-5iv	Sij-Siv	щх-5ј	
Sweet Spirit of Nitre	30-60 c.c.	30-I20c.c.	8-15 c.c.	8-15 c.c.	.6-4 c.c.	
Spiritus Camphoræ	3j-3ij	3-3-31	3j-3iv	3j-3iv	щх- 5ј	
Spirit of Campnor	30-60 c.c.	30-60 c.c.	4-15 c.c.	4-15 c.c.	.6-4 c.c	
Spiritus Chloroformi	35-31	3j-3ij	5ij-5iv	5ij-5iv	тхх−5ј	
(Chloroform 60 parts, Alcohol 940 parts)	30-60 c.c.	30-60 c.c.	8-15 c.c.	8-15 c.c.	I-4 c.c.	
Spiritus Frumenti	Sij-Siv	Jij-Jiv	3j-3ij	3j-3ij	3j-5iv	Diluted.
50-58 per cent. alcohol by volume	60-120c.c.	60-120c.c.	30-60 c.c.	30-60 c.c.	4-15 c.c.	
Spiritus Glycerylis Ni-	5ss-5j				mj-ij	1
One per cent. alcoholic solution of Nitroglycerin	2-4 c.c.				.0612 c.c.	
Spiritus Juniperis Com- positus	Sij-Siv	31j-3iv	3j-3ij	3j-3j	2j-2iv	Diluted.
Gin About 50% alcohol	60-120c.c.	60-120c.c.	30-60 c.c.	30-60 c.c.	4-15 c.c.	

tı .	ı	L	1			
Notes						
Dog					·	
Pig						
Sheep, calf, foal		,				·
Cow						
Horse						
Name of drug	,					

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Spiritus Menthæ Piperitæ	5ij-5iv	Sss-Sj	5ss-5j	5ss- 5j	щху-ххх	Diluted.
Essence of Peppermint	8-15 c.c.	15-30 c.c.	2-4 c.c.	2-4 c.c.	I-2 c.c.	
Spiritus Vini Gallici Brandy	Jij-Jiv	Sij-Siv	5j-5ij	3j-3ij	3j-3iv	Diluted.
About 46–50% alcohol	60-120c.c.	60-120c.c.	30-60 c.c.	30-60 c.c.	4-15 c.c.	
strychninæ Sulphas	gr. ss-iss	gr. ss-iss	gr.1/4-1/2		gr.1/130-1/40	This is full dosage for
(C ₂₁ . H ₂₂ N ₃ O ₃) ₃ H ₃ SO ₄ + 5H ₃ O	.0309gm.	.0309 gm.	.01503gm.		.00050015 gm.	0
Sulphur Lotum	Sij-Siv	Jij-Jiv	3j-3j		5ss-5iv	
Washed Sulphur	60-120 gm.	60-120 gm.	4-30 gm.		2-15 gm.	
Sulphur Precipitatum	Sij-Siv	Sij-Siv	3j-3j		5ss-5iv	
Precipitated Sulphur	60-120 gm.	60-120 gm.	4-30 gm.		2-15 gm.	
Sulphur Sublimatum	Sij-Siv	Sij-Siv	3j-3j		3ss-3iv	
Flowers of Sulphur	60-120 gm.	60-120 gm.	4-30 gm.	-	2-15 gm.	
Syrupus Calcis Lacto-			3iv-5j		3j-3iv	
Syrup of the Lactophos- phate of Lime			15-30 c.c.		4-15 c.c.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Syrupus Calcis			3j-5ij		3ss-3j	
Syrup of Lime			4-8 c.c.		2-4 c.c.	
Syrupus Ferri Iodidi Syrup of Iodide of Iron	3iv-3j				myv-xxx	
5% by weight of Ferrous Iodide	15-30 c.c.				.3-2 c.c.	
Syrupus Ipecacuanhæ					щхv-5ј	
Syrup of Ipecac					I-4 c.c.	
Syrupus Scillæ Composi-					myv-xxx	
CompoundSyrupofSquill Cox's Hive Syrup					.3-2 c.c.	
Syrupus Scillæ					5ss-3j	
Syrup of Squill					2-4 c.c.	
Syrupus Tolutani					3j-3iv	
Syrup of Tolu					4-15 c.c.	
Taraxacum	3j-3ij	3j-3ij	3ij-3iv	5j-5ij	3j- 5ij	
Dandelion Root	30-60 gm.	30-60 gm.	8-15 gm.	4-8 gm.	4-8 gm.	

Notes				
Dog	t ·			
Pig				
Sheep, calf, foal	.,			
Cow				
Horse				
Name of drug				

Notes										!	Largely used as a wound dressing in	vetermary practice.	Rarely used internally; used externally as leg wash diluted with water.
Dog	MV-XV	.3-1 c.c.	gr. xx-xl	1.3-2.6gm.	gr. v-xx	.3-1.3gm.	gr. j-xv	.06-1 gm.	ıığij−x	.126 c.c.	5ss- 5ij	2-8 c.c.	
Pig	5ss-5j	2-4 c.c.			gr. xv- 3j	I-4 gm.			щv-хх	.3-I.3 c.c.	5ss-5j	15-30 c.c.	
Sheep, calf, foal	5ss- 5j	2-4 c.c.			gr. xv- 3j	I-4 gm.	3ss-3ij	2-8 gm.	их-ай	.3-1.3 c.c.	5ss-5j	15-30 c.c.	
Cow	5ij-5vi	8-24 c.c.			3ss-3ij	2-8 gm.	•		5j-5iss	4-6 c.c.	5ij-5iv	60-120c.c.	
Horse Cow	5ij-5vj	8-24 c.c.	5j-5iij	30-90 gm.	5ss-5ij	2-8 gm.	5ss-3ij	2-8 gm.	щхх-2j	1.3-4 c.c.	5ij-5iv	60-120c.c.	
Name of drug	Terebenum Terebine	C10.H16	Terebinthinæ Canadensis	Canada Turpentine	Terpini Hydras Terpine Hydrate	C10H18(OH)2+H2O1	Thymol	C10.H14O	Tinctura Aconiti Tincture of Aconite	Wolf's Bane	Tinctura Aloes et Myrrhæ Tincture of Aloes and	Elixir Proprietatis	Tinctura Arnicæ Tincture of Arnica Leopard's Bane

ri	ſ	1	ı	i	ı	ı
Notes						
Dog			-			
Pig						
Sheep, calf, foal						
Сож						
Horse		•				
Name of drug						

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Tinctura Belladonnæ Poliorum Tincture of Belladonna Leavester					ngv-xxx	
Tinctura Benzoini Tincture of Benzoin	3ss-3j	5ss-5j	5ij-5iv	5ij-5iv	5ss-5j	
Tincture of Benjamin	15-30 c.c.	15-30 c.c.	8-15 c.c.	8-15 c.c.	2-4 c.c.	
Tinctura Benzoini Com- positus Compound Tincture of Franzoin Priar's Balsam						Used as a wound dressing in veterinary practice.
Tinctura Cannabis Indicæ Tincture of Indian Hemp					щх- 3ss .6-2 с.с.	
Tinctura Cantharidis Tincture of Cantharides	Sij-Siv	Zij-Ziv			mgij-xv	
Spanish Fly Tinctura Capsici	8-15 c.c. 5ij-5iv	8-15 c.c. 3j-3ij	тум-3ј	щу- 5 ј	щуу- 5j	In giving Tinct. Capsici
Tincture of Capsicum Cayenne Pepper	8-15 c.c.	30-60 c.c.	.3-4 c.c.	.3-4 c.c.	.3- 4 c.c.	give a little oil with it and to dilute the tinct- ure with water.
Tinctura Catechu	3ss-3j	3j-3ij	5ij-3j	5ss-3j	3ss-3ij	
Tincture of Catechu	15-30 c.c.	30-60 c.c.	8–30 c.c.	15-30 c.c.	2-8 c.c.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Tinctura Belladonnæ Roliorum Tincture of Belladonna Leaves Deadly Nightshade					щv-ххх .3-2 с.с.	
Tinctura Benzoini Tincture of Benzoin Tincture of Benjamin	5ss-5j 15-30 c.c.	5ss-5j 15-30 c.c.	5ij-5iv 8-15 c.c.	5ij-5iv 8-15 c.c.	5ss-5j 2-4 c.c.	
Tinctura Benzoini Compositus Compound Tincture of Benzoin Friar's Balsam						Used as a wound dressing in veterinary practice.
Tinctura Cannabis Indicæ Tincture of Indian Hemp					Mx-3ss .6-2 c.c.	
Tinctura Cantharidis Tincture of Cantharides Spanish Fly	5ij-5iv 8-15 c.c.	5ij-5iv 8-15 c.c.			щіј-хv .12-1 с.с.	
Tinctura Capsici Tincture of Capsicum Cayenne Pepper	5ij-5iv 8-15 c.c.	5j-5ij 30-60 c.c.	щv-5j	щv- 5j .3-4 с.с.	щv- 5j .3- 4 с.с.	In giving Tinct. Capsici to animals it is well to give a little oil with it and to dilute the tinct- ure with water.
Tinctura Catechu Tincture of Catechu	5ss-5j 15-30 c.c.	35-5ij 30-60 c.c.	5ij-5j 8-30 c.c.	5ss-5j 15-30 c.c.	5ss-5ij 2-8 c.c.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse			,	
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
16C	3j-3ij				3ss-3ij	
30	30-60 c.c.				2-8 c.c.	
31	3ij- 3j				MX-XXX	
•	8-30 c.c.				.6-2 c.c.	
SS.	3ss-3j				ı қ хv-5j	
15-	15-30 c.c.				I-4 c.c.	
	3j-3iv	5j-5iv	5ij-5iv	3ij-3iv	5j-5ij	
. e	30-120c.c.	30-120cc.	8-15 c.c.	8-15 c.c.	4-8 c.c.	
					3j-3iv	
					4-15 c.c.	
						Rarely used internally.
	3j-3ij	Sij-Siv	5ss-5j	5ss-5j	5ss-5ij	
30-	30-60 c.c.	60-120c.c.	15-30 c.c.	15-30 c.c.	2-8 c.c.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug				

Horse Cow 5j-5jj 5j-5jj 30-60 c.c. 30-60 c.c.	Sheep, calf, foal 5iij-5vj 12-24 c.c. 5ij-5iv	Pig 51j-5vj 8-24 c.c. 8-25 c.c. 5j-5ij	Dog 588-5j 2-4 c.c. 5j-5iv 4-15 c.c.	Notes
	5iij-5vj 12-24 c.c. 3ij-5iv	5ij-5vj 8-24 c.c. 5j-5ij	585-5j 2-4 c.c. 5j-5iv 4-15 c.c.	
	12-24 c.c. 3ij-3iv	8-24 c.c.	2-4 c.c. 5j-5iv 4-15 c.c.	
	Sij-Siv	3j-3ij	3j-5iv 4-15 c.c.	
	5ij-5iv	5j-5ij	4-15 c.c.	
	5ij-5iv	5j-5ij	щііј-хх	
5ij-5iij				
30-60 c.c. 60-90 c.c.	8-15 c.c.	4-8 c.c.	.2-I.3 c.c.	
5iss-5iij	5 iss-5iij		myv-xxx	
24-45 c.c. 45-90 c.c.	6-12 c.c.		.3-2 c.c.	
			ngij-x	
4-15 c.c.			.126 c.c.	
38s-35j	Sij-Siv	3j-3iv	ΨV-XV	
15-30 c.c. 15-30 c.c.	8-15 c.c.	4-15 c.c.	.3-I c.c.	
5j-5ij	5j-5ij	5j-5ij	gr. x-3j	
30-60 gm. 30-60 gm.	4-8 gm.	4-8 gm.	.6-4 gm.	
		6-12 c.c. 5ij-5iv 8-15 c.c. 5j-5ij 4-8 gm.	· i	.c. 3j-3jv 2.c. 4-15 c.c. 3j-3jj 8n 4-8 gm.

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse		·		
Name of drug				

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Veratrina Veratrine	gr. ss-ij	gr. ss-ij				
	.0312 gm.	.0312gm.				
Veratrum Viride	5ss-3j	5ss-3j	gr. xx-xxx	gr. x-xx	gr.1/10-j	
arcen trencore	2-4 gm.	2-4 gm.	I.3-2 gm.	.6-1.3 gm.	.00606gm.	•
Vinum Antimonii					mv-3j .3-4 c.c. Emetic	
Antimonial Wine					mi-ii .06~.12 c.c. Medicinal	
Vinum Colchici Seminis	3iij-5j	5iij-5j			mx-xx	
	12-30 c.c.	12-30 c.c.			.6-2 c.c.	
Vinum Ipecacuanhæ					mxv-3j I-4 c.c. Emetic	
Wine of Ipecac					mi-ii .0612 c.c. Medicinal	
Vinum Wine Naturally fermented liquors mostly from fruits containing from 7%-20% alcohol						Given in dosage proportionate to its alcohol strength. See whiskey.

Notes				
Dog				
Pig				
Sheep, calf, foal				
Cow				
Horse				
Name of drug	·			

Name of drug	Horse	Cow	Sheep, calf, foal	Pig	Dog	Notes
Zinci Acetas Acetate of Zinc	5j-5ij	5j-5ij			gr. ij-iij	
Zn(C2H3O2)2+2H2O	4-8 gm.	4-8 gm.			.122 gm.	
Zinci Oxidi Oxide of Zinc	3j-3ij	3j-3ij			gr. v-x	
ZnO	4-8 gm.	4-8 gm.			.36 gm.	
Zinći Sulphas Sulphate of Zinc White Vitriol	3j-3ij	5j-5ij	gr. x-xx	gr. x-xx	gr. x-xv .6-1 gm. Emetic	
ZnSO4+7H2O	4-8 gm.	4-8 gm.	.6-1.3gm.	.6–1.3gm. gr. ii–iij .12–.2 Medicii	gr. ii-iij .122 Medicinal	
Zingiber Ginger	3ij-3j	3j-5iv	5j-5ij	5j-5ij	gr. v-xv	
	8-30 gm.	8-30 gm. 30-120 gm.	4-8 gm.	4-8 gm.	.3-1 gm.	

Notes				
Dog				
Pig				
Sheep, calf, foal				
Сож				
Horse				
Name of drug				

POISONS AND THEIR ANTIDOTES

Poisonous Gases	
Sulphuretted Hydrogen	Chlorine cautiously inhaled.
Chlorine, Bromine Iodine Vapor	Steam inhalation.
Ammonia Vapor	Vinegar vapor.
Carbon Monoxide	Fresh air and artificial respiration; transfusion.
Nitrous Oxide	Artificial respiration; tongue drawn forward; intermittent pressure over cardiac region if heart action failing.
Coal Gas Charcoal Fumes Carbonic Acid Marsh Gas	Artificial respiration. Alternate warm and cold douches to the head and neck. Encourage circulation by friction. Mustard plasters over surface.
Acids Sulphuric Acid Hydrochloric Acid Nitric Acid Phosphoric Acid	Alkalies; sodium or potassium bicarbonate. Magnesia: chalk, plaster. Soap, milk, eggs whisked. Olive or almond oils. The alkalinity of the blood impaired by acids is restored by intravenous injection of sodium bicarbonate.
Oxalic Acid and Oxalates. Tartaric Acid Acetic Acid	Chalk, whiting or wall plaster, with water.
Hydrocyanic Acid Potassium Cyanide Alkalies	Alternate cold and warm affusions. Artificial respiration. Atropine injection, repeated every half hour. Mixed proto and per salts of iron, magnesia.
Potassium Oxide and Carbonate Sodium Oxide and Carbonate Ammonium Solution Calcium Oxide	Vinegar; lemon juice. Other dilute acids. Milk; oil.

POISONS AND THEIR ANTIDOTES—Continued

Vegetable Drugs, Alka- loids, Etc.	**
Aconite	Spirits: ammonia. Digitalis; atropine; warmth.
Acorns; Oak Shoots. Fern	Oil: salines: laxative diet.
Alcohol	Strong coffee and cold douches to the head.
Anæsthetics	Artificial respiration.
Chloroform, ether, etc	Cold douche to head and neck.
Antimony	In patients that do not vomit, wash out the stomach with tannic or gallic acids, followed by milk, white of egg, or other demulcents.
Arsenic	Wash out the stomach with large amount of warm water, introduced by stomach syphon or pump. Give dogs zinc sulphate or other emetic. Iron oxide, moist, made by precipitation of ferric chloride solution by sodium carbonate or ammonia.
Atropine: Belladonna Hyoscyamus Stramonium	Stimulants and coffee. Caffeine, subcutaneously injected. Sustain action of motor centres by interrupted electric current, and occasionally moving the animal. Artificial respiration, if needful. Physostygmine given cautiously.
Barium Salts	Epsom salt. Sulphuric acid diluted.
Calabar Bean: Physostygmine	Stimulants: chloral. Atropine, strychnine. Artificial respiration, if necessary.
Cantharides	Barley water, gruel, and other demulcents. Avoiding oils, and fats.
Carbolic Acid Creosote	Saccharated lime; stimulants.

POISONS AND THEIR ANTIDOTES—Continued

Chloral	Warmth. Keep patient moving. Strychnine and caffeine subcutaneously.
Colchicum	Tannic and gallic acids; demulcents.
Conium: coniine:	Stimulants. Tannic acid.
Cicuta Virosa	Strong coffee.
Œnanthe	Stimulants.
Croton Oil	Demulcents; stimulants.
	Artificial respiration.
	If there be a wound, ligature, if possible, above it, and incise and
Curare	suck strongly. Loosen ligature
	from time to time, but avoid
	letting too much poison into the
Digitalis:	blood at a time. Tannin; stimulants.
Ďigitalin	Aconite, subcutaneously.
	Perfect quiet.
Ergot	Tannin; stimulants.
Fungoid infested or	Substitute sound food: laxatives. Eucalyptol, menthol, other anti-
mouldy fodder or	septic volatile oils.
grain	Ethereal stimulants; saline antiseptics.
Gelsemium	Atropine; stimulants.
Insects' Venomous	\ Artificial respiration.
Stings	Apply ammonia and oil.
	Stimulants: coffee.
Laburnum	Alternate hot and cold douches to
	chest.
Lobelia	Tannin; stimulants. Strychnine, hypodermically.
- 404	Epsom salt; dilute sulphuric acid.
Lead Salts (see also Metallic Salts)	Det milion in did a conscional dosa
(see also wetaine saits)	of castor oil.
	White of egg in large amount.
Metallic Salts, as of Cop-	Subsequently wash out stomach. Give demulcents.
per, Lead, Mercury	Foment; poultice.
	Morphine, if needful.

POISONS AND THEIR ANTIDOTES-Continued

Morphine: Opium Other narcotics	Empty stomach by syphon or pump. Warm coffee; ammonia. Maintain activity of motor centres by keeping patient moving, and by electric shocks. Strychnine hypodermically sustains action of heart. Atropine in small doses subcutaneously.
Nitro-Benzol Amyl-Nitrite	Artificial respiration, if needful. Alternate hot and cold douche. Stimulants. Artificial respiration.
Nitro-glycerine	Ergotin; atropine subcutaneously.
Phosphorus	Copper sulphate. Oil of turpentine, old and oxidized. Avoid fats and fatty oils.
Cocculus Indicus Pilocarpine: Jaborandi	Chloral; potassium bromide. Atropine.
Quinine	Tannic or gallic acids; coffee. Stimulants, artificial respiration.
Savin	Epsom salt; demulcents; ethereal stimulants.
Snake Bite	Ligature limb; excise wound, and sear with hot iron. Alcoholic stimulants; ammonia. Artificial respiration.
Strychnine: Brucine Nux Vomica	Chloroform; chloral. Potassium bromide; tannin.
Tobacco	Warm stimulants. Tannin; strychnine.
Turpentine Oil	Demulcents; Epsom salt.
Veratrine: White Hellebore	Stimulants; warm coffee. Perfect quiet.
Yew	Stimulants, laxatives. Demulcents.

DURATION OF PREGNANCY IN THE DOMESTICATED ANIMAL

ANIMAL	
	Authority
Mare330-340 daysV.	G. Kimball.
Cow	G. Kimball.
Sow115-120 daysV.	G. Kimball.
Bitch 58- 65 daysV.	G. Kimball.
Ewe145-155 daysV	G. Kimball.

RELATIVE VALUE OF APOTHECARIES' AND METRIC MEASURE

Minims C.c.	Minims C.c.	Fl. oz. C.c.	Fl. oz. C.c.
I = 0.06 2 = 0.12 3 = 0.18 4 = 0.24 5 = 0.30 6 = 0.36 7 = 0.42 8 = 0.50 9 = 0.55 10 = 0.60 II = 0.68 I2 = 0.74 I3 = 0.85 I5 = 0.92 I6 = I.00 I7 = I.05 I8 = I.12 I9 = I.17	25 = 1.54 30 = 1.90 35 = 2.16 40 = 2.50 45 = 2.80 50 = 3.08 55 = 3.40 Fluid-drachms I = 3.75 I ½ = 5.60 I ½ = 5.60 I ½ = 6.51 2 = 7.50 3 = II.25 4 = 15.00 5 = 18.50 6 = 22.50 7 = 26.00	I = 30.00* 2 = 59.20 3 = 89.00 4 = I18.40 5 = I48.00 6 = I78.00 7 = 207.00 8 = 236.00 9 = 266.00 I0 = 295.70 I2 = 355.00 I3 = 385.00 I4 = 414.00 I5 = 444.00 I6 = 473.II I7 = 503.00 I8 = 532.00 20 = 591.50	21 = 621.00 22 = 650.00 24 = 710.00 25 = 740.00 26 = 769.00 27 = 798.07 28 = 828.80 30 = 887.25 31 = 917.00 32 = 946.00 48 = 1419.00 56 = 1655.00 64 = 1892.00 72 = 2128.00 80 = 2365.00 96 = 2839.00 112 = 3312.00 128 = 3785.00
20 = 1.25	,		

^{*} The more accurate equivalent is 29.57 C.c.

APOTHECARIES' AND METRIC WEIGHT 113

RELATIVE VALUE OF METRIC AND APOTHECARIES' MEASURE

C.c. Fl. oz.	C.c. Fl. oz.	C.c. Fl.	C.c. Minims
1000 = 33.81	400 = 13.53	25 = 6.76	4 = 64.8
900 = 30.43	300 = 10.14	10 = 2.71	3 = 48.6
800 = 27.05	200 = 6.76	9 = 2.43	2 = 32.4
700 = 23.67	100 = 3.38	8 = 2.16	1 = 16.23
600 = 20.29	75 = 2.53	7 = 1.89	0.5 = 8.11
500 = 16.90	50 = 1.69	6 = 1.62	0.25 = 4.06
473 = 16.00	30 = 1.01	5 = 1.35	0.06 = 1.00

RELATIVE VALUE OF APOTHECARIES' AND METRIC WEIGHT

^{*} Or, more exactly, 15,432 grains = I gramme.

RELATIVE	VALUE	OF	METRIC	AND	APOTHECARIES'
		•	WEIGHT		

Gm.	Grains	Gm.	Grains	Gm.	Grains	Gm.	Grains
0.002 0.004 0.006 0.008 0.016 0.016	10 = 1/4 20 = 1/2 10 = 1/6 15 = 1/6 15 = 1/6 16 = 1/6 17 = 1	0.065 = 0.100 = 0.130 = 0.180 = 0.200 = 0.300 = 0.500 = 0.700 =	1.543 2.006 2.315 2.778 3.086 4.630 7.716	2 = 3 = 4 = 5 = 6 = 7 = 8 = 3	15.43 30.86 46.30 61.73 77.16 92.60 98.02 123.46 138.90	125 = 150 = 175 = 450 = 550 = 650 = 750 =	1543.23 1929.04 2314.85 2700.65 6944.55 8487.78 10031.01 11574.26
	7 = 1/8	0.900=			154.32		15432.35

TABLE TO ASSIST THE BEGINNER IN PRESCRIBING LIQUIDS

Having fixed upon the bulk of the liquid, remember that there are in

- I fluid ounce, 8 teaspoonfuls each I fluid dram.
- 2 fluid ounces, 16 teaspoonfuls each 1 fluid dram.
- 4 fluid ounces, 32 teaspoonfuls each 1 fluid dram.
- 4 fluid ounces, 16 dessertspoonfuls each 2 fluid drams.
- 6 fluid ounces, 24 dessertspoonfuls each 2 fluid drams.
- 6 fluid ounces, 12 tablespoonfuls each 1/2 fluid ounce.
- 8 fluid ounces, 16 tablespoonfuls each ½ fluid ounce.
- 1 pint, 32 tablespoonfuls each 1/2 fluid ounce.
- 1 pint, 8 wineglassfuls each 2 fluid ounces.

CENTIGRADE AND FAHRENHEIT SCALES 115

APPROXIMATE MEASURES

A drop = usually about 1 minim.

A teaspoonful = 60 drops or 1 fluid dram.

A dessertspoonful = 2 fluid drams.

A tablespoonful = 4 fluid drams.

A wineglassful = 2 fluid ounces.

A teacupful = 4 fluid ounces.

RULES FOR COMPARING THE CENTIGRADE AND FAHRENHEIT SCALES

The Centigrade scale has 100° of temperature between the freezing and boiling points, while the Fahrenheit scale has (212-32) 180°. Hence, 1° C. = 1.8° F. or 5° C. = 9° F.

Therefore, to convert Centigrade into Fahrenheit: Multiply 1.8 and add 32. To convert Fahrenheit into Centigrade: Subtract 32, divide the remainder by 9 and multiply by 5 (or subtract 32 and divide directly by 1.8).

THE HARRISON ANTI-NARCOTIC LAW

Of great importance in the practice of the veterinarian and the druggist is Public Act No. 223, H. R. No. 6282, popularly known as the Harrison Law, which went into effect March 1, 1915.

This Federal Narcotic Revenue Law describes the conditions under which veterinarians may purchase, use, dispense and prescribe, and druggists may purchase, dispense, and sell opium, coca leaves and all compounds, derivatives, alkaloids, salts, and preparations of these drugs.

The principal requirements of the Act as it affects the veterinarian and the retail druggist are the following:

- I. He must make application to the Collector of Internal Revenue in the district in which he conducts his business or has his office, for registration under this Act and pay an annual special tax of \$1.00. No one who is not thus registered may buy, sell, use, dispense, prescribe, or even have in his possession, any of the drugs or preparations covered by the Act.
- 2. Having become registered and having been assigned a registration number he must purchase from the Collector of Internal Revenue official order forms bearing his name and number on which he must make out in duplicate all orders for the purchase of drugs under the Act. When purchasing such goods, the original order, which must state the quantity of narcotic drug present in each ounce or fluid ounce, or if in pill or tablet form the

amount of narcotic drug in each pill or tablet, must be signed by the registered party in person and be sent to the seller. The duplicate must be kept on file subject to inspection for two years. These forms or order blanks are sold by Collectors of Internal Revenue to those registered under the Act at the rate of \$1.00 per hundred.

- 3. The veterinarian must keep a record of the drugs and preparations under the Act which he dispenses or distributes, showing: first, the date on which such drug is dispensed or distributed; second, the kind and quantity dispensed or distributed; and third, the name and residence of the person to whom the drug or preparation was dispensed or distributed. This record must be kept two years subject to inspection. Veterinarians may, however, personally administer any such drug or preparation without keeping a record thereof.
- 4. Druggists may under no circumstances sell, exchange, dispense, or give away, any drug or preparation under the Act unless: (a) the order is received from a registered person, as for example, a veterinarian, on the official order blank described in paragraph 2, or (b) upon the prescription of a physician, dentist, or veterinarian registered under the Act.

No official form is provided for such a prescription, but it must bear the date upon which it was written, must be signed with the full name of the registered practitioner issuing the prescription, must bear the office address and registry number of the prescriber, and the name and address of the person for whom such prescription is written. The prescription must be filed for two years subject to inspection.

5. Collectors of Internal Revenue may demand at any time a sworn statement setting forth the quantity of drugs and preparations under the Act received during a period not to exceed three months immediately preceding the demand, said statement to include sources of said drugs and preparations, quantities in each instance and dates when received.

6. Although the law covers opium, coca leaves, and all preparations, derivatives, etc., of these drugs, certain exemptions are made for preparations containing only minute quantities of these drugs or their derivatives. Any preparation which does not contain more than 2 grains of opium per ounce or fluid ounce, ½ grain of morphine per ounce or fluid ounce, ½ grain of heroin per ounce or fluid ounce, is exempt from the provisions of this Act. In like manner, liniments and ointments, for external use only, are exempt unless they contain cocaine alpha- or beta-eucaine or any derivative or synthetic substitute for them, and further provided that they contain other ingredients rendering them unfit for internal administration.

There are many other provisions of the Act which are not of special interest to veterinarians and retail druggists. such, for example, as those exempting from its requirements Government officials, institutions, etc. Of possible importance to them, however, is the provision that if a container becomes broken or destroyed through accident the registered owner must immediately make affidavit as to the kind and quantity of drug lost, and keep such affidavit on file with his order blanks. Again, if a veterinarian or druggist desires to return a drug or preparation under this Act to the registered manufacturer or dealer from whom it was purchased, he may not do so until he has received from such manufacturer or dealer an official order blank therefor, and the serial number of the order under which the goods are returned must be noted by the purchaser on the retained duplicate of his original order for the goods. Again, if any quantity of a drug or preparation is used by the registered pharmacist or

veterinarian in the manufacture of another preparation, a complete record of the quantity of such drug or preparation used must be kept on file subject to inspection. If a veterinarian maintains an office in more than one Internal Revenue district he must register separately in each district. If, however, he maintains only one office he may practice his profession in Internal Revenue districts other than the one in which he has registered without additional registration. On the other hand, pharmacists having more than one place of business must make application for registration in each such place whether or not they are in the same Internal Revenue district. Prescriptions may not be re-filled if they call for any proportions whatever of any of the drugs or preparations under this Act.

In conclusion it is important to note that the Harrison Act is a Revenue Law and in no way whatever affects or annuls any other State or municipal laws regulating the sale or dispensing of drugs and preparations covered by this law.

COLLEGE CF AGRICULTURE UNIVERSITY OF WISCONSIN MADISON

Name	Chgd.	8	7	0	2	4	8	g.	9	10	11	12	13	14	15	16	Chgd.	Cash
			-			-						_						
			-			-	-			-								
	-		-	-	-	-		-		-	-	-	-	-				
-		-	-	-			-		-	-	-	-	_	-	-			
	-		-	-		-			H	-	-	-	_	_	_			
	-		-	-	-	-				-		_						
-					_	-	-					_						
Albania									1	-				-				
-	-	and the same	-	-		-			1		-	-	-					
			-	-	-		_		+	-	-	-	-	-	-	-		
-	-	_			-	_			-	-	-	-	-	-	-	-	-	
		_		_	_				-	-	-		_	_	-	_		
		-terior							1		_	_				_		
									T									
CONTRACTOR AND			-						T	-		-	-					
				-				-	+	-	-	-	-	-	-	-		
-		-	-	-	-				+	-	-	-	-	-	-		-1	
	-		-			-		-	+	-	-	-	-	-	-			
			-		-	-	-				-		-				le	

Jama	Chipt	1.0	20	0.0	100	-	- Par	3	25	26	27	28	29	30	31		Chgd.	Cash
ame	Trillin O		6.			-							_		_			
	S. Carriero									_	_	_						
				10														
Jertari Se	-			1	-	100			1									
144		la la			-	100	-		-	_	_	_	-		_			
0-40-5				h.														
					1													
					-	-	-								1			
No. of Contract of		-	-30	-	-	1	-	-	-	-	1	-	-	-	-			-
						1	1		1									
					1					-			1					-
														1				
		-	-	-	10,40	1	-	1	-	-	-	-	-	-	-			
		-	-	-	-	ļ.	1	-	_		-	-	-	-	-	_	-	-
	1			-	d'ann		L											
		-			1	I												
	dig Calmonia.	-	1-1-1	-		-	1	-		-		-	1	-				
B. 100.00	landon.	-	-	-	-	-	bos	-	-	-	-	-	-	+	-	-		
							-	1			_	_		-		_		
		1										1	1					
															1 18			
	-	-	-	-	-	+-	-	-	-	-	-	-	-	-	-			
i i			-	-	-	-	-	1		_	-	-	-	-	-	-	-	
	L			1	1	-	L											
			-	-	-			-										13
	T.	1	1	don't	-	1	-	1		-	1	1	-					
	-	e lea	1-	4-	1-	-	1	-	-	-	-	-	-	-	-	-		-
			-	1		1							_					
						-	-	1					1			1		
	177				1	T	T	1						1				
100	-	-	i kina	1	+	-	+	-		-	-	-	-	-	-	-		
	E	1		P.	1	1	1	1		1	1			1	G			

lame	.bgdC	8	Y	ø	S	b	6	2	9	10	11	12	13	14	15	16	Chgd.	Cash
														_				
															-			
													_					
	W 100																	
	TO SAID 1												_					
		-								_			_					
	-								-	-	_	-	-					
					Deki		-			-	-		-					
203 AS 10 - 10			-								-							
	ASSESSED NO.				3009													
			-		-					_	_	_						
			-	-	-		-	_	-	-	-	-	-	-				
-				-		-		-	-	-	-	-	-	-				-
A			-							-	-	-	-					
Page 154 a			1						T									
		1				-				_	-	-						
Na distriction		1	-						+	-	-	-	-	-				- 5
		4	-					-	-	-	-	-	Diagram	7 ad in	C	00	gle	-

Month Name 11 12 13 14 15 10 Ched. 3 5 Chgd. Cash

Year, 191... Month..... 10 11 12 13 14 15 16 Chgd. Cash

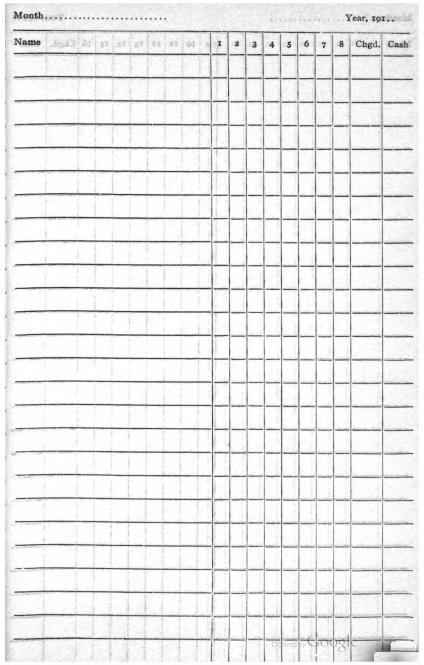
Name	Chgd.		31	30	29	2.8	48	ðs.	17	18	19	20	21	22	23	24	Chgd.	Cash
																	THE STATE OF	
-			1															
		1									-		-	Total year		-		
-		-										1000	The same		-		union copy of	-
	-	+	-	-	-				-			-			-	-	-	- mention
	-	+			-	or other				-			-	1000	2000	-		
		-								-	-							
		1																
				-		100			100							-		
	-		-		-		-							7,10		1000		
				-			of the control	OLE OF				700-0						
		-		7	-	-	-	-		1		-						
	TANK TO SERVICE	HELE		-	-			-	-	PORTON I	The same		-	70.7		-	100	-
- THE STATE OF	×100.00	+	1	4	10 a.0 ().0		-	-	H.	-			The same	- Aller				-
		NO -		-	1	- 341	-	- I			-	1960	-		_	1		
	decimal of the			1000	,	-	or eq	-	4		-		1		re(iii)			
THE CHAPTER	and report	-	1	, i	1	September 1			YI.									
				1	1				1									
			T			1											ores can en	
		1	10	-	-	Delete Co	200			0				15179			TRANSPORTER	Scottler.
1	TREE STORY AND	State	1	Popula	1	3	me a	275.00			-		1			Paris	CHIPTED 19	
- Separate		1	A CONTRACTOR	10.75	WAR TO	100							77.000				- Production	The Sales Street, Sales St
-	a comment of	-		ata in		-	1	esta e			Notice Service	the same	0.95					
	-	No.	20	TOTAL DE	1		772		+			-		100	=	1	THE STATE	Comme
			0.00	-	Rose ja		-	e de la constante de la consta				The		1	-	9100	C 62007940	
	The same of	-	1	S.J.	1	-	000	-				-	7	700				See File
	Lake					1	9	3				0			io(C 202	

Month..... Year, 191. Name) 3093) 11 05 05 8c 7c 0c 17 18 19 24 Chgd. Cash 20 21 23

Month Year, 191 .. 25 27 28 29 Name bodd a la colts or or at 26 30 31 Chgd. Cash

Name	CERRI	2		è		133	3		9	10	11	12	13	14	15	16	Chgd.	Cash
Territoria	STATE OF THE		Anna	0	- Si	P	6		-	_	- 11	-						
anii												0.00						
100 M		7	-	-		-												
and the same of	-		ALC: NAME OF THE PARTY OF THE P		-	-	a Pierr			_	_	_						
																1		
				12.000						19								
1773	No.			- Charles		-	-		1									
		19000	-				- 74-1		-		_		H					
							15.					1		1				
						-					1							
-	New York		and the	-	-				1			-						
			-	100	-	-		-	11	1	1		1		1			
									11	1		1				1		
		Alexandra de			-	1												
-	AST VINE OF		-	-	- A	-	17-25	-	1	-	-	-	-	-		-	70-	
	1	-		-					1	-	-	1						
		-		j				1	1	1		1						
	The second	and the last		1				7 - 3					1	- Company	H			
200	-	-	-	-			-		-	-	-	-	-	-	-			
	-	-	1	-											3	-		
									1	1		1	1					
A TOP OF	1	CORP.	-	1										1	1			
-	-		-			-	-		1	-	-	-	-	-	-			-
						-		-	11		_	_	_					
		-								13		1			1			
										1						1		
-	-	-		-	-	-	-		-	-	-	-	-	-	-	-		-
11.5		1								1								18
			1		-					1				1	1			
														1		1		
						-	-	-	1	-	-	-	-	-	-	-		-
					-													
												1		1	13			
			30				Ty			-			Digit	ized b	G	00	gle	-

Year, 191.. Month..... Chgd. Cash Digitized by GOOGLE



Name	.figelO	133	21	1.1	63	101	12	01	1	2	3	4	5	6	7	8	Chgd.	Cash
										-		-	_	_	-	_	- Gingar	
		-	-							_	-				_			
												_	-			_		
-	-	-	-	-	-			-	+	-	-	_	_		_	_		
	-			, j					1									
								1			1							
									1				-					
	-		-				-	-	+	-	_	-		_	_			
-									-									
									1									
	-		-		-			-	+	-	-	-	-	-	-	_		
								-	1									
									11									
		1																
	-	126	-						+	-			-	-	-	-	-	
-		-							4	_					_			
		1	1						1									
		-						1		1	1							
-	-							-	1	-	-		-	-	-			
-	-	-	-		-			-		_		-			_			
	100										1	1						
		-	1			1	1	Control of the Control		1						1		
COLUMN										-		-	-	-		-		
-	-					-		-	-		_			_	-			
			1															
100										-	-			-				
Service Service			-	-		-							tized	-	00			-

Year, 191.. Month Name Ligito 3 1 0 41.8 8 3 9 10 11 12 13 14 15 16 Chgd. Cash Digitized by GOOGLE

	**************************************	-	100					- 12 E		Year, 191.								
ıme	Ched	DX.	13	ja.	13	47	11%	-01	1	2	3	4	5	6	7	. 8	Chgd.	Cash
-	47(4) - 16)		-										100			100	1	
Service Control	-	All march	Property and	(toda)	1	Yest.	and the	1	100	-	-12		-	-	1250	A. Carrie		
			113															
	-		-4/100	har	D'ROL	****	500	100		7		7		T				
- No.		Parties.	iparitra.	Section.	NOTE:	-	racin	1000	-	-	-		-		TE SE			
												1	3	1		To leave	1	
						1									1300			
Se venting a	of the second	enen/		25		-	e la stra	Treat		17.36	1	-	7	77			747	THE
	et et en en en	Missel	- april			-100		-	-	1	170	- 10	CFA		-	-		
						73000			1 .	1	1	-						
													100		G.			
	- Translations		et-in	-	-	****	4	-9-4	17			170		710	17	100		
-	***						-	ppin p	1	1	- C-1-4		197	-			-	
				· lucia									0					
									-						1		South State	
en marining	***************************************	diseas.	(Maple)	477	- Trimb	200		19/9-76	-	-	-	1	100			191		
	-	2	or raise to	N- 1/2-			-	- range	-		-	-	-	-		Teles,		
									1	i.								
					1				1	1		-		9 11				
		ruse		-			77	-		1	125	1	100					
	-	-				name,	1 10	-	-	1	-		-		-	-		
	******		2010	-				-								15		
							1				1			1	1	-		THE REST
	-			-			or the same	77	-		3-	7			1			100
	-	de e constante		-	me-/a		-	-,000	-	-	700	-	=	-	-	-	1000	-
	-		1	-	-	and a						_	_		_	-		
			1											-			- 2.0	
	and the second	7	-(-1)	1		-			-	1		100						
-		-		news (-	reactor.	-		-	170	786	-	915	-				1072
					1				1			4			2			
											1							
	-	-est-	-14	-	-	rier les Jo	a mary		100	-	1	-	grtiz	ed by	(30	009	le	

Name	Chg.L	II.	30	99	28	37	26	17	18	19	20	21	22	23	24	Chgd.	Cash
								H									
				-										-			
		-	-	-	-		-		_			_					
									1								
					-								-	-	-	-	
		-	-	200			-										
					action.	arter.											
													T				
		1				-	-	-	-	-	-		-	-	-		
		-	-		-	-				1							
-																	
										5		7		1	7		
		- Maria	-	700		-			-		1					-	-
-	-	-	أحد	-		estative of			1	-		_		1			
		1	-									1	1	3			
				-	-	400			1						-	-	
			-	AT.		67.0	in in in	+	-	-		-					
		1							-								
-		la la colonia	-								i					-	
				3	11000							-					
	******	-		7				-	-		1000	-		-			
			-					14						1			
			-						7		7					-	
		-	200	-	-			+								-	-
	-	lema!			-			1	-								
	-								4		1		+				
			-	1	77	-	-	T				1					
				- 11-11-11			1.000	+	-		1270		7				
-			-	-				4	-				1				
									3								
DOM:						1	-		7								
-		Line L	-	-		-	-			-	-	gilize	oy (30	08	e-	

Year, 191.. 30 31 Chgd. Cash 25 26 27 28 29 Name 12 02 01 81 igitized by GOOGE

Month.... Year, 191... Name had been at at at at the be Chgd. Cash Month Year, 191 .. Name best as as as or or kr 26 27 28 29 30 25 31 Chgd. Cash

Year, 191. Name 19 11 12 13 14 15 16 Chpd. Chgd. Cash

Month....

onth	-	1000	-		-	-										-	Year, 19	
ame	Chyd.	da	ăī	21	ξX	CI	23	01	1	2	3	4	5	6	7	8	Chgd.	Cash
											1							
									0		I	1		1				
							O-ALIE	-					1		3			
					2 1000					T	-	-				T		
								Service .										
San arranti super	-				Aller In	-	Sec. 201.03	1			1							
	2507.20	-				-	200	42.00			1	-		T				
		-				-		-	1				T	1	-			1 00
			-			420		- 00		-		-				1		
1300 1000	Olympia de la compansión de la compansió				-	-	-	-	+	7	-	-	-		-			
	-	¥	-		-				-	-	-	-	-	-	-	-		
		-	201		-		-	M/02	71	-	-	-	1	-	1	-		
	A	-1124	-	-	-	-			+	-	-	-	-	-	1	-	-	
(2.720)		-	-				-	44.2	1	-	-		-	-	-			-
erentari i	-	-			-	-	-	-		0,000	-	-	-		1	-		
		-	4 -7-	-	-	1	-			-	-	-				-	-	
	- 11.20	-	-			-	-		4	_		-			-	-		- Constitution of the
	100	-	-				1	1	1	-	1	-	1		1 1-154	-		
*	-	-	-			-	j material			1	-	C/E-FES	i	-	-			-
	de part		1		1			1		-	-			-	-			
											9			1				
												3.1		1	-			
-												1						
2000										1				T				1
										CTO:		Di	gitized	by (O	08	C	1

ST TANKS	FILE STATE		- 15			125	160	100	15 30		333	10.00	1337	1,000			A STATE OF THE PARTY OF THE PAR	100
Iame	Chgd.,	8		0	2	1	8		9	10	11	12	13	14	15	16	Chgd.	Cash
					-												1	
NAME OF THE OWNER, OWNE	to the same			-		-				_		_		_	-	-		-
			-	-	1		-		-	-	-	-	-	200	-	-	ALC: N. T.	-000
			-							da di	-			-	-			
-		-	200	-	-	-				-	-	-	-	-	-		-	-
	-									_		-	-			Angel		
				-														
	-		-			more of	200		-	-	einei	1000	-	-	-	-		-
A second	Shaker	-	-			-04-	-			and the		-	-					country
				1														
			-	-	0.00				-	- Caro	-	200		200	-			
nine ic		-			-	i					200	-	2012	Sele				
						-			T									
	ATE NO.		Spirit.		-	-	0.77	-		-		-	-	-	20.00	100		
		-	-	اخر				-	1	-	-				and the			415-81
and the second					-													
						-			T									
	-		-			-		ew di	+	-60	-	-	-	-		-		
Outgrand					-					-	10.		- 15					
				-		2					lan.					-		
									T						7			100
-		-		100					-		-		-375	210	COSTA O			Canada
		2				-					-		-	in a				-
														ized b				

me	.bg(2)	¥	115	100	12	OV	- OI	81	25	26	27	28	29	30	31	200	Chgd.	Cash
1577				and the same	- New York	NA.		The Land		Regar				Table 1		-		100000
-	-	-		and the second	CT 985		1000	3		-	10.00	-	-	-	-	-	* EUTOTES	0.30
		4150	i i			Meson	100	1-1	100	375	TOM	71.75						-0:55
							N											
				GICTORY.	-	2000	2763			THE ST							1	
	-		-		- myde-	-	8.750											
	- Tolson N	No. of Street,	-	A state	No.	1000	12084	4,62	-	78.50	-	-32		1028				
	-	-	1	Page 1	Page -	-	01920	United in	e en e	-		-	-			10000		-
	Service and		1	-	Seaso.	New York	-	-	Ve B									
		1			-													
			-				-											
200	A Security	Come.	-0-		- mile		to dress	Qubecus Je	1	-72	32750			7550				
Spirita 11	Spanner in	ind fab	Links	-	Post	mante	diesev-	Service S	- India	10,75	-	7217			1			500
-	-		1000	-	- Spilor	Towns or the	Stilette	parties.	-	-	-	-	100	-		-		1902716
10472	The same of the	-c (198-10)	Concession	-	A - che c-	Colom	-		20074	-								60.5
		100	-	-														
					1						-	1						
		-		-	-	- Contract	-							1				
		-	Today.	-	plage	-	-	Special S		1000	100	10.00	100					
- Comment	-	-	S West	10000	-	-	Gerlande I			1000	100	-	-	1				
100	-	-	The last	-	-	-	19000	-		-	-		-	-			1400	100
	b	1		lant.	1		000		-				-	-				
								1					1					
-			1	1	-	-	-		T	-		-			1			1000
acadana			-	-	1	10-41-	-	-		Crap	1	7.50	1	- Ze		710		
	-	100	1	-	-	- strake			-	-	1000	100	73		100	-		
-146	-	100	-	a later	-	M4-7-	-	-		1	-	-	400	1000				7.55
		-	1	-	-	1		1	1		4.74	-						
3				1		100			1	1					G			

Name 2,450 of 2,400 of 2,40	[C1 1	C
	Chgd.	Cash
	-	-
	1	
	-	
	1	
		-
		1

Digitized by GOOG C

Year, 191.. Name 2 . bgd 2 8 c b a 4 6 6 9 10 11 12 13 14 15 16 Chgd. Cash Digitized by GOORIE

me	LogoJ	III.	23	SI.	5.7	100	11	01	ı	2	3	4	5	6	7	8	Chgd.	Cash
			-							The same								
									H	T	T		T	F	T	Т		
	-				-							-	Ŧ			-		7
	areasta	nement.			1000	-	er ev		-	+	+	-	-	-	-	_		
		-				-		-	4	_	4	-		_	_			
		-	-	ere mer														
			-		-								1					
										-	T			7		T	113	
									T	1	T	T	1	1				
-						-	77	-	1	-	+	-		-	-			1
5,000		market.		-	100	44	1		1	+	+	-	-	-	-	_	-	-
		-	-	-	-	-	#5.900	-	1	-	-	_	<u>_</u>			1	-	
						m.) (9500)	-					1				1		
							est-out W						1					
								7	- Constitution		3	-		1	1	T.		•
		1			April 1	-			1	1	_					-		
-		1				-		-	+	-	-	-	-	-	-	-	-	7
-	-		-		-		-	-	+	-	-	-	_	-		-	1	
-		-	-			-	-	-	4		_	1	and and	-	Ŀ	-	4	
			-	1	-		_										4	-
				mane ()	-		1					1			9-1-1	+		
														1	1	T		
3			T		-			1	T	-	-	1			Y			
		-07		1				-	+	-	7	-		-	-	-	7	-
		-	-	-		-	Wines	-	-	4	-		-	4	-	-	1	
		-		-		1	-	-	1	-		1	-					ingerials to
			1			1				-			3					
										7		1	4					
		-	1				-		I	T	-	T	T	3				
-		-	-		-		1	mh ter)	-1	-	127	200		211		00	10	-

Vame	Chgd.	111	5 95 85	in the f	17	18	19	20	21	22	23	24	Chgd.	Cash
							-							
					Į.	-								
		1								- 1				
		1					-							
					-	-	-	-		-	-			
			1	-	-	-	-	-	-	-	-		-	De la
		-	++-		-	-		-	-	-				
			-		-		-	_	-	-	-			
			-		-			_	_				HE LONG	
		1				_								400
			1							-1		1		
-141														
				-										
						-		-	-	-	-	-	-	
		1-	1217		-	-	-	-	-	_	-	-	-	200
-	- Color	-	-		-	-	-		-	-	-		200	-
					-	_	_	_	ter.			10		700
-	-			-			_		_					
		1-1-				_								1100
				. Luite	1						6,1			
					1									
						-10								
								D	gitized	by	OE	39	e _	100

Month..... Year, 191 .. 26 27 28 29 30 31 Chgd. Cash Name 25 18 49 70 21 22 23 %4 Ched. Google Digitized b

Month..... Year, 191... Name 11 19 13 14 15 16 Chgd 02 Chgd. Cash I 2 3 5 6 8

89047258843 pt **TEEN DAYS** below. A fine of TWO CENTS ach day the book is kept over



