

Hewthorn's veterinary guide.

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**HEWTHORN'S
VETERINARY
GUIDE.**



**HORSE SECTION
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XV

HEWTHORN'S VETERINARY GUIDE.



TRADE MARK.

HORSE
SECTION.



LONDON :

F. HEWTHORN & Co., Ltd.

70, FINSBURY PAVEMENT, E.C.

BREEDERS' TABLES.

MARE (goes 340 days).

If Served	Will Produce on	If Served	Will Produce on	If Served	Will Produce on	If Served	Will Produce on
Jan. 1	Dec. 1	Apr. 1	Mar. 2	July 1	June 1	Oct. 1	Sept. 2
7	.. 7	7	.. 8	7	.. 7	7	.. 7
14	.. 14	14	.. 15	14	.. 14	14	.. 14
21	.. 21	21	.. 22	21	.. 21	21	.. 21
28	.. 28	28	.. 29	28	.. 28	28	.. 28
31	.. 31	30	.. 31	31	July 1	31	Oct. 1
Feb. 1	Jan. 1	May 1	April 1	Aug. 1	.. 2	Nov. 1	.. 2
7	.. 7	7	.. 7	7	.. 8	7	.. 8
14	.. 14	14	.. 14	14	.. 15	14	.. 15
21	.. 21	21	.. 21	21	.. 22	21	.. 22
28	.. 28	28	.. 28	28	.. 29	28	.. 29
Mar. 1	.. 30	31	May 1	31	Aug. 1	30	.. 31
7	Feb. 5	June 1	.. 2	Sept. 1	.. 2	Dec. 1	Nov. 1
14	.. 12	7	.. 8	7	.. 8	7	.. 7
21	.. 19	14	.. 15	14	.. 15	14	.. 14
28	.. 26	21	.. 22	21	.. 22	21	.. 21
31	Mar. 1	28	.. 29	28	.. 29	28	.. 28
		30	.. 31	30	.. 31	31	Dec. 1

COW (goes 283 days).

Jan. 1	Oct. 10	Apr. 1	Jan. 9	July 1	Apr. 10	Oct. 1	July 11
14	.. 23	14	.. 22	14	.. 23	14	.. 24
28	Nov 6	28	Feb. 5	28	May 7	28	Aug. 7
Feb. 1	.. 10	May 1	.. 8	Aug. 1	.. 11	Nov. 1	.. 11
14	.. 23	14	.. 21	14	.. 24	14	.. 24
28	Dec. 7	28	Mar. 6	28	June 7	28	Sept. 7
Mar. 7	.. 16	June 1	.. 11	Sept. 1	.. 11	Dec. 1	.. 10
21	.. 29	14	.. 24	14	.. 24	14	.. 23
28	Jan. 5	21	.. 31	21	July 1	21	.. 30

EWE (goes 150 days).

Jan. 1	May 29	Apr. 1	Aug. 28	July 1	Nov. 27	Oct. 1	Feb. 27
14	June 11	14	Sept. 10	14	Dec. 10	14	Mar. 1
Feb. 1	.. 29	May 1	.. 27	Aug. 1	.. 28	Nov. 1	.. 30
14	July 12	14	Oct. 10	14	Jan 10	14	Apr. 12
Mar. 1	.. 28	June 1	.. 28	Sept. 1	.. 28	Dec. 1	.. 29
14	Aug. 10	14	Nov. 10	14	Feb. 10	14	May 12

SOW (goes 112 days).

Jan. 1	Apr. 21	Apr. 1	July 21	July 1	Oct. 20	Oct. 1	Jan. 20
14	May 4	14	Aug. 3	14	Nov. 2	14	Feb. 2
Feb. 1	.. 22	May 1	.. 20	Aug. 1	.. 20	Nov. 1	.. 20
14	June 4	14	Sept. 2	14	Dec. 3	14	Mar. 5
Mar. 1	.. 20	June 1	.. 20	Sept. 1	.. 21	Dec. 1	.. 22
14	July 3	14	Oct. 3	14	Jan. 3	14	Apr. 4

BITCH (goes 63 days).

Jan. 1	Mar. 4	Apr. 1	June 2	July 1	Sept. 1	Oct. 1	Dec. 2
14	.. 17	.. 14	.. 15	.. 14	.. 14	.. 14	.. 15
Feb. 1	Apr. 4	May 1	July 2	Aug. 1	Oct. 2	Nov. 1	Jan. 3
14	.. 17	.. 14	.. 15	.. 14	.. 15	.. 14	.. 16
Mar. 1	May 2	June 1	Aug. 2	Sept. 1	Nov 2	Dec. 1	Feb. 2
14	.. 15	.. 14	.. 15	.. 14	.. 15	.. 14	.. 15



P R E F A C E.

PROBABLY no subject is of more real interest to horse and stock owners than the study of the diseases to which domestic animals are liable.

To know the mechanism of their frames; their condition in health and disease; to learn to distinguish the minute changes which mark any deviation from the normal, healthy condition of the body; and to be able, when the necessity for treatment is indicated, by timely and proper use of suitable medicines and other means, to restore the animals to perfect health, must be a source of hearty satisfaction and pleasure to every owner of stock.

It is with the object of rendering this easier, and of helping every stockkeeper to combat successfully all the ordinary diseases to which stock generally are liable, that we publish this treatise.

In writing this Book, as in compounding our various Medicines, &c., we have endeavoured to give our readers everything that is essential, in the best and most effective form.

The symptoms of the various diseases dealt with are clearly and concisely described; avoiding as much as possible technical details and language liable to confuse the horsekeeper and agriculturist.

It is essential to remember, however, that though disease in its earlier stages is comparatively easily dealt with, yet if time be lost in procuring medicine that ought to be kept ready on hand, great risk of failure is run, a much larger sum is generally expended, and difficulties are greatly increased; whereas, had the remedies been *ready at hand*, an easy cure would very probably have resulted.

It is very important, therefore, that a sufficient assortment of Medicines should be *kept on hand* to enable all ailments to be dealt with effectively and *at once*—as promptitude does so very much to promote success.

The preparations herein prescribed are carefully manufactured under special qualified Veterinary supervision, and by skilled chemical experts.

In administering all medicines, due care must of course be exercised, and the age and constitution of the animal duly considered by the giver, both in selecting the proper remedy and in varying the dose according to the best of his ability and judgment.

We have to gratefully acknowledge the kindness of Messrs. FREDERICK WARNE & Co., Messrs. C. D. CAZENOVE & SON, and Messrs. BALLIERE, TINDALL & COX, who have permitted us to make use of some of their Veterinary publications, and have thus assisted us very considerably in the compilation of this book.

F. HEWTHORN & Co., Ltd.

70, Finsbury Pavement,

London, E.C.

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HEWTHORN'S
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HEWTHORN'S




Horse & Stock Keepers' REQUISITES.

The Latest Scientific Improvements,
AND THE
VERY FINEST INGREDIENTS,
In the Best and Handiest Forms,
and at the Cheapest Possible Prices.

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HEWTHORN'S Concise PRICE LIST.

- CALF MEALS.**—Best "Milk Substitute," 24/-; ordinary "Calf Meal," 12/6 cwt.
CART GREASE.—Best, 11/6 cwt. Extra quality, 16/6 cwt.
DISINFECTANT.—Fluid,* 3/- (a), 3/6 (b), and 4/- (c) per gallon.
DRENCHES.—Cleansing, Cordial, Liver, Purging, 11/6 per doz.; Drying-off, 10/6 per doz.; Felon, 12/6 per doz.
DRINKS.—Gaseous, Colic and Gripe, Influenza (Antifebrile Stimulant), 19/6 per doz.; Cordial, Cough, Fever, Purging, 17/6 per doz.; Red Water Remedy, 2/- per bottle; Sedative Extract, 3/- per bottle.
EMBROCATION.—Matchless, 21/- per doz. **GOLD SIZE.**—14/- per gall.
HAY, CHAFF & FODDER SPICE ("Flavora.")—For Chaff, &c., 24/- cwt.
HARNESSE COMPOSITION.—Best only, 1-lb. Tins, 12/- doz. (each equal to four 1/- Tins), ½ lb. Tins, 11/- doz.; ¼ lb. Tins, 6/- per doz.
HOOF DRESSING.—3/6 and 8/6 per tin.
HORSE BALLS.—Capsuled, 5/- per doz. Alterative, Astringent, Condition Cordial, Cough, Diuretic, Fever, Grease, Purgative, Purifying, Swollen Leg Tonic, Worm, &c.
HORSE CLIPPERS.—7/6, 11/6, and 12/6 per pair.
"HUSKURA" (Husk Cure).—24/- per doz.
JAPAN.—Best Black Carriage, 18/- per gall.
JELLY.—Axle, 23/- cwt.; Healing, 2/6 per tin. Petroleum, 1/- per 1-lb. Tin.
"KILL-RAT."—The surest Vermin Killer Known 2/6, 5/-, 10/-, and 20/- per tin.
LINCTUS.—Cough, for animals unable to swallow, 1/6 per bottle.
LOTIONS AND LINIMENTS.—Absorbent, 3/6 per bottle. Blistering, 3/- per bottle. Curb, Splint and Spavin, 3/6 per bottle. Cooling and Pain Soothing, 1/9 per bottle. Detergent, 2/6 per bottle. Fly and Maggot, 7/6 per gall. Foot Rot, 2/- per bottle. Mange & Skin, 2/- per bottle. Styptic, 2/6 per bottle. Warble, 2/- per bottle. Wound, 1/6 per bottle; 7/6 per gall.
MEDICINE CHESTS, for all purposes, 25/-, 50/-, 100/-, and upwards.
MILK SUBSTITUTE.—The very best quality, 24/- cwt.
OILS.—Axle*: Best, 1/8 (a), 2/3 (b), 2/6 (c) per gall. Extra quality*, 2/3 (a), 2/9 (b), 3/- (c) per gall. Harness*, 3/1 (a), 3/6 (b), 4/- (c) per gall. Hoof*, 2/6 (a), 3/- (b), 3/10 (c) per gall. Cylinder*, 1/6 (a), 2/- (b), 2/5 (c) per gall. Lubricating*, Machinery and Engine*, 1/5 (a), 2/- (b), 2/3 (c), per gall. Best Gas Engine*, 1/8 (a), 2/4 (b), 2/7 (c) per gall.
OILS, VETERINARY.—Carminative, Laxative, 1/6 per bottle. Black Healing; Lambing and Calving, 2/- per bottle. Castor, 7/- per gall. Cod Liver, 7/- per gall. Linseed (Refined), 5/6 per gall.
OINTMENTS.—Absorbent, 5/6; Blister, 1/9; Drying-Off, 2/-; Eye, 2/6; Grease Dressing, 1/9; Hoof, 2/-; Mange, 2/-; Soothing, 3/-; Skin, 2/-; Thrush, 2/3; Udder, 3/- per jar or package.
PAINTS.—(Best), any colour, ready for use, waterproof, in 28-lb. tins, 44/- cwt.
POLISHES.—Leather, 17/6 per gallon; Metal, Brass, &c., 1-lb. tins, 18/- doz. (equal to four 1/- tins), ½ lb. tins, 11/- per doz.; ¼ lb. tins, 6/- per doz. Plate and Silver, 1-lb. tins, 18/- doz. (equal to four 1/- tins), ½ lb. tins, 11/- per doz., or; ¼ lb. tins, 6/- per doz.
POWDERS.—Blood Purifying, 2/- doz.; Conditioning, 2/- per doz.; Cough, 6/6 per doz.; Fig, 2/- per doz.; Scouring Remedy, 1/6 per tin; Worm, 6/6 per doz.; (also all the foregoing in large tins, price 24/- each); Medicated (Horse), 24/- per large tin; Red Water, 6/6 per doz.; Wound, 1/6 per tin; **SPECIAL THRIVING: Horse, Pig and Poultry,** each 21/- per box of 250 packets; **GRUEL POWDERS** for Horses, 21/- per box of 250 packets.
PRESERVATIVES.—Meat, 14 lb. tins, 10/-; 28 lb. tins, 18/6; or casks, 65/- per cwt. Cream, 14 lb. tins, 11/-; 28 lb. tins, 20/-; or casks, 72/- per cwt.
SHEEP DIP.*—3/- (a), 3/6 (b), 4/- (c) per gall.
THERMOMETERS.—Veterinary, Clinical in strong nickel case, 5/6 each.
THRIVING MIXTURES.—Horse, Cow, Cattle and Sheep (Fattening), Pig and Poultry, 34/- per cwt. (Specially compounded for each class of animal).
VARNISHES.—(Best only), Body, 26/- per gall. Carriage, 18/- per gall. Wagon, 13/- per gall. Black (for wood and iron), Best*, 1/6 (a), 1/11 (b), 2/2 (c) Ordinary*, 1/4 (a), 1/9 (b), 1/11 (c) per gall.
VETERINARY INSTRUMENTS of all descriptions at Lowest Prices.

* (a) in 40 gallon casks. (b) in 10 gallon casks or drums. (c) in small quantities.

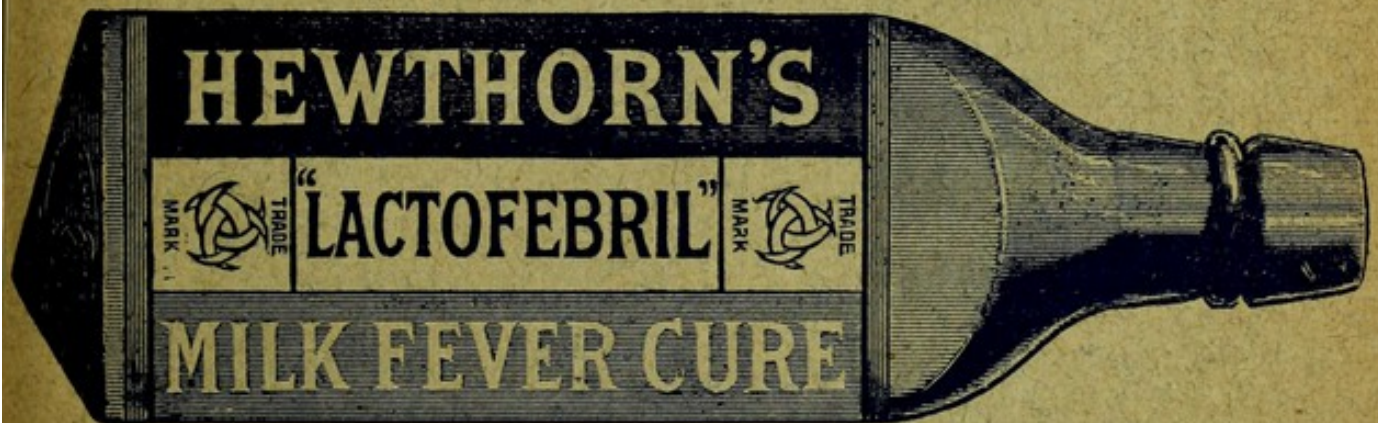
All Prices are subject to Market Fluctuations.

Carriage paid on all orders of 20/- and upwards.

HEWTHORN'S MILK FEVER CURE

*Another Enormous Improvement on
Old-Fashioned Remedies !!*

"LACTOFEBRIL"



(Packed in Triangu'ar Bottles, bearing Hewthorn's Trade Mark.)

This Wonderful Drink far Surpasses any other known.

A QUICK AND CERTAIN CURE

can be relied on: and a very few doses will usually

GET A COW "ON HER LEGS,"

and even in severe cases effect a rapid and complete recovery. Every Farmer should keep a supply on hand, to be given at once on the first sign of the disease. Used thus, it will save many losses at calving time, and prove

INVALUABLE TO ALL BREEDERS.



F. HEWTHORN & Co., Ltd.

70, FINSBURY PAVEMENT, LONDON, E.C.

A Remedy for Calf-Slipping ↪
HEWTHORN'S
"ABORTICURE."



By treatment with this
 Valuable Remedy,
ABORTION
 or "Slipping Calf" can be
EFFECTIVELY STOPPED
 in any herd, and the
HEAVY LOSSES
 that it entails
ENTIRELY PREVENTED.

It is
EXTREMELY SIMPLE AND EASY TO USE,
 and the careful, thorough carrying out of our
 Directions for Use is all that is needed to ensure
COMPLETELY SUCCESSFUL RESULTS.

Every Breeder should Keep a Supply in Stock,
 as treatment should be commenced the moment
 any Cow shows signs of Abortion, and
THE DISEASE IS THEN CHECKED AT ONCE
 from spreading; whereas infection is almost
 certainly set up if time has to be wasted in
 obtaining supplies after the disease shows itself.

Sold only in Packages sufficient for the thorough treat-
 ment of **6 Cows.**



Sole Manufacturers—
F. HEWTHORN & Co., Ltd.
 70, FINSBURY PAVEMENT, LONDON, E.C.

BLACK LEG BEATEN!

BY HEWTHORN'S "VAXETON" BLACK LEG REMEDY.



BY treatment with Hewthorn's "VAXETON," that dangerously fatal disease, Symptomatic Anthrax (variously known as "Black Leg,"

"Black Quarter," "Quarter-ill, or Evil," "Blood Striking," &c.), can be **effectually and completely combated**; farm animals rendered **PROOF AGAINST INFECTION**, absolutely protected from its ravages; and **heavy losses entirely avoided**.

It is the result of the extended researches of the very highest Veterinary Scientists; and wherever used in accordance with instructions, **IT CAN BE RELIED ON** to give satisfactory results.

It can be **used easily and with certainty** by any stock-feeder, and **ITS VALUE IS IMMENSE to the Breeder**, as it practically insures him against Black Leg losses.

Every animal between 6 and 30 months old should be treated once a year in districts where Black Leg is liable to occur; and instantly wherever an outbreak occurs in a neighbouring herd or flock, unless it has already been done within the previous 6 or 8 months.

Sold in Complete Outfits, for treating 10 Calves and upwards.



F. HEWTHORN & CO., LTD.,

70, Finsbury Pavement, London, E.C.

HEWTHORN'S REMEDY for WHITE SCOUR

IN YOUNG CALVES AND LAMBS IS
A CERTAIN CURE



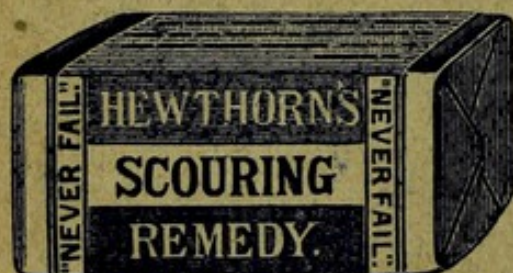
If used Promptly before the Calf becomes too weak. It has given WONDERFUL RESULTS IN EXTREMELY BAD CASES where all other remedies had utterly failed, and is most valuable to Calf Rearers for Preventing Mortality among Calves. A supply kept always in hand will save Breeders many pounds yearly in losses prevented.

IT CAN BE THOROUGHLY RELIED ON.

HEWTHORN'S "SCOUR CURE"

QUICKLY CURES EVEN - -

- - - VERY BAD CASES.



HEWTHORN'S SCOURING REMEDY is unfailing for checking and curing Scouring, Skit, and Diarrhoea in Foals, Calves, Lambs, & all Animals. It STOPS SCOURING AT ONCE, neutralising acidity and flatulence, and removing all irritation. It soothes pain, restores health to the whole system, and is a prompt and powerful strengthening cordial.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

HEWTHORN'S

New Gaseous

BLACK DRINK.

THE "20 MINUTE CURE."

For COLIC, GRIPES, HOVEN, &c.

A Magical Restorative and Wind Dispenser.



FAR AHEAD OF OLD-FASHIONED PREPARATIONS.
BEATS ALL OTHER "BLACK DRINKS."

It GIVES almost INSTANT RELIEF,
and Makes all Pain and Distention

"VANISH LIKE MAGIC."

It disperses and neutralises all accumulated gases; soothes and rapidly **cures the severest griping and colic**; quickly quieting the animal and restoring natural healthy conditions. It is a marvellous reviver for exhausted weakly animals, **giving new energy, strength and vitality**. A splendid remedy for Scouring, Chill, Cold, &c. **19/6** per dozen.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

A few recent Customers' Reports on _____

HEWTHORN'S GASEOUS BLACK DRINK

The Premier Remedy for Colic & Gripes.



"I am very pleased with your Gaseous Drinks. I think them marvellous. Have effected some wonderful cures."—

R. YORSTON, Essex Street, Liverpool.

"Have been very pleased with your Gaseous Drinks. They have acted like magic, and I shall recommend them to all team owners."—

—T. FLYNN, St. Stephen Street, Liverpool,

"Your Gaseous Drinks have worked wonders. I have cured several of my neighbours' horses, and will recommend them to all my friends."—J. CARLISLE, 14, Potts Street, Byker.

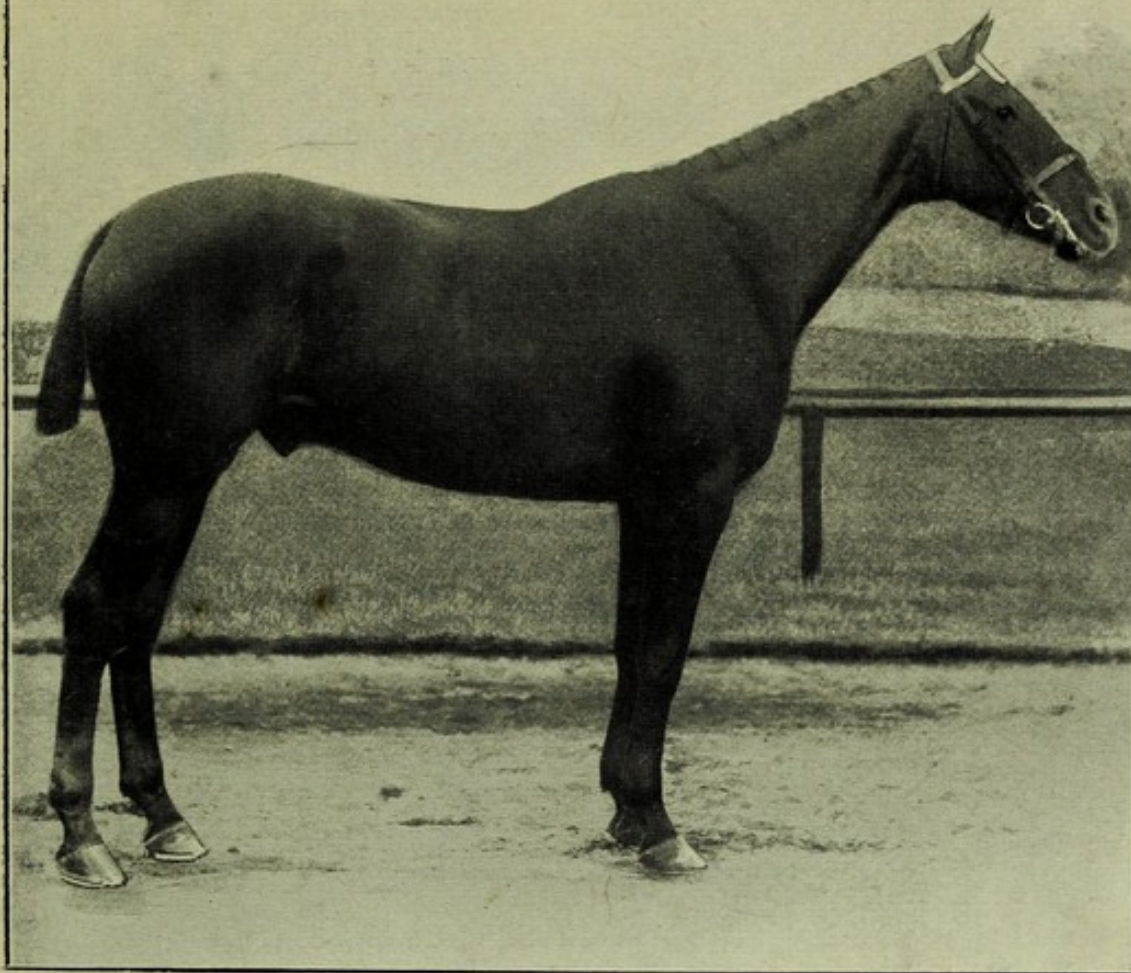
"I have used your Gripe Drinks for seven years, and must say they are the best I ever used."—E. ORGAN, Somerset Square, Cathay.

"The Gaseous Black Drink gives great satisfaction. I had a horse with Gripes, and one bottle very quickly gave relief, and made it fit for work again."—R. BROWN, Detling Hill, Maidstone.

"Your Black Drinks are the best I have ever used. One drink has always put a 'Gripy' Horse right in a very short time."—
W. TRUCKELL, Havelock Terrace, Battersea Park Road.

"Your Black Drinks are the best I have ever used."—
W. PARRY JONES, Gop Hall, Newmarket, Flint.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
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“GOLD DUST.” The Property of Hewthorn & Co.’s Customer,
ABEL BUCKLEY, Jun., Esq., Galtee Castle, Mitchelstown.

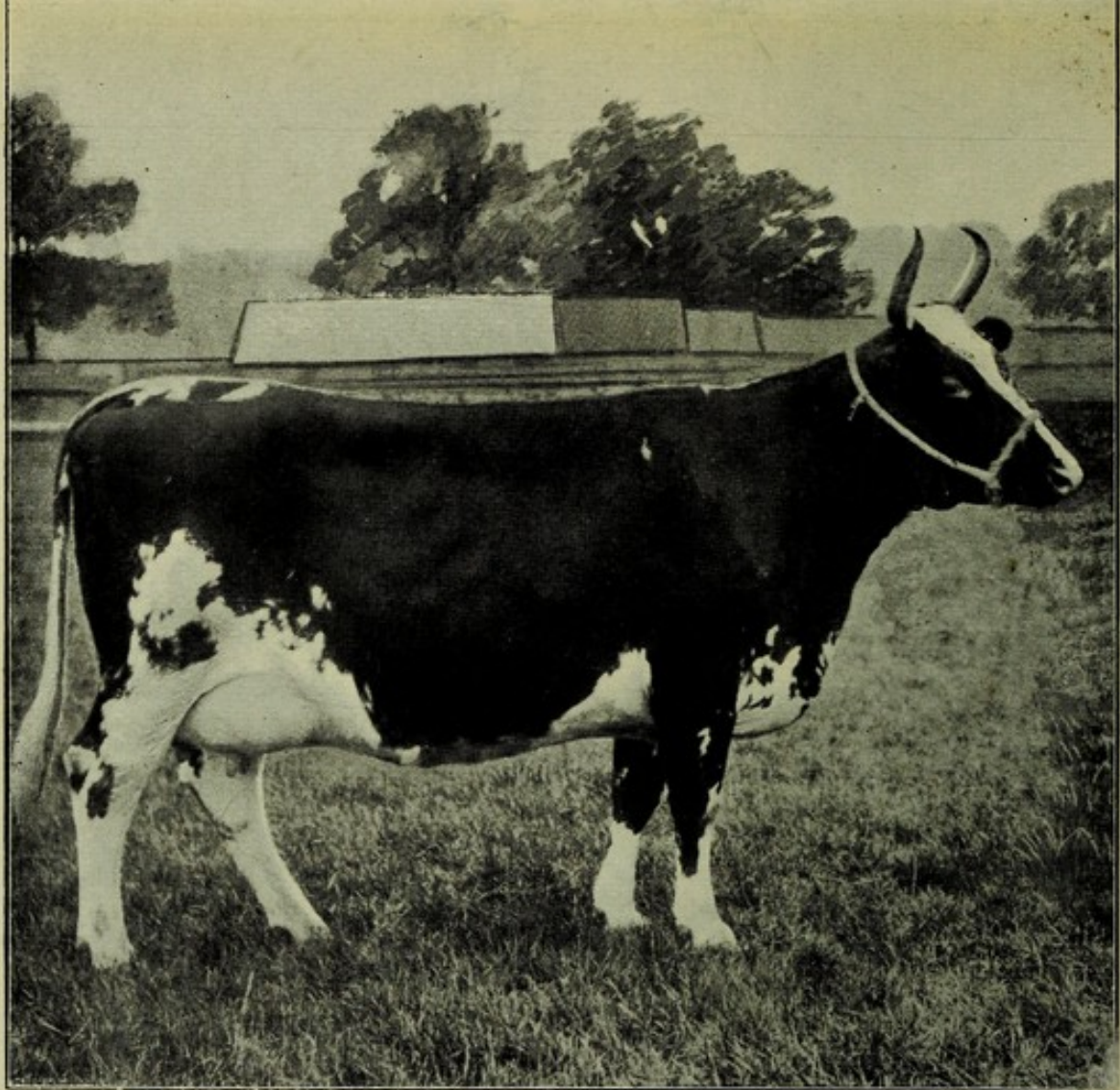
Winner of Champion Cup and Usher Roberts Cup at the Dublin Show, 1903.

“I cannot too highly recommend your **HORSE THRIVING MIXTURE**, as the results I have had from it have **FAR EXCEEDED MY ANTICIPATIONS**. My horse ‘Gold Dust,’ which has won the ‘**CHAMPION CUP**,’ and also the ‘**USHER ROBERTS CUP**’ at the **DUBLIN SHOW, 1903**, was fed on your admirable preparation.”—ABEL BUCKLEY, Jun., Galtee Castle, Mitchelstown.

“Your **GASEOUS BLACK DRINKS** have **SAVED ME TWO BAD CASES** which I thought beyond cure. I like the **MATCHLESS EMBROCATION** very much; I cannot tell you the great value it has been to me in many cases. **NO SINGLE FAILURE.**”—FRYER HOPPER, Black Bush, Whittlesey.

“I never had such Worm Medicine before as **HEWTHORN’S WORM POWDERS**. They **SAVED A VALUABLE COLT FOR ME** that had gone very thin and weak. He has now quite recovered; and in **EACH CASE** where I have given your Powders **I HAVE HAD SUCCESS**, and they are all in good condition now.”—JOHN MOSS, Long Hill Farm, March.

“I found your **PRESERVATIVE** exceedingly useful, and certainly **SUPERIOR TO ANY OTHER** preparation I have used before. I know of **NO DISADVANTAGE** in its use. It is **PERFECTLY TASTELESS**, and leaves no evidence of its use on the meat dressed with it. Fresh or newly killed meat treated with it keeps remarkably well.”—J. W. BRIGINSHAW, 122, Rye Lane, Peckham, S.E.



“GAY LASS.” The Property of Hewthorn & Co.’s Customer,
A. MITCHELL, Esq., Barcheskie, Kirkeudbright.

Winner of First Prize at Royal Agricultural Show, and of 3 other First Prizes.

“Your **FATTENING CATTLE MIXTURE HAS WORKED WONDERS.** A bullock that I could do nothing with till I tried your Mixture, I was able to sell at the Mold Smithfield for £19 10s. ; while six weeks before I had had to ‘buy him in’ for 60s.”—ALFRED TURNER, Ty Ucha, Gwernaffield, Mold.

“Your **GASEOUS BLACK DRINKS** have been **ALWAYS SUCCESSFUL, PARTICULARLY WHERE OTHERS HAVE FAILED.** Your **CURB LOTION** has **REMOVED A CURB OF LONG STANDING** from a valuable Cob, which sold for 30 guineas, after having been offered half that amount for before treatment.”—J. M. DICKINSON, Butcher, Ffynnon Groew.

“The **HUSKURA** gave every satisfaction. My young Sheep were coughing badly, and looked very bad ; but **ON USING HUSKURA THE COUGHING CEASED,** and they improved fast.”—T. AXFORD, Trenaslett, St. Tudy, R.S.O., Cornwall.

“Your **HARNESS OIL EXCELS ALL OTHERS** I have used. It **RENOVATES** the **NEGLECTED LEATHER QUICKLY**; renders it pliable; and it takes your **COMPO LIKE A NEW SET.**”—F. MORLEY, The Bell Tavern, Wimblington, Cambs.

“The **DISINFECTING FLUID** I found **VERY EFFECTIVE** in every way, **ESPECIALLY IN STABLES** and for out-door purposes.”—W. W. PAGE, 116, High Street, Eton.

HEWTHORN'S COUGH DRINKS!

Cure the Worst Cough



More quickly and more completely than anything known. They **STOP THE COUGHING**, soothe the air passages, and **RELIEVE THE PAIN** at once; and warm and

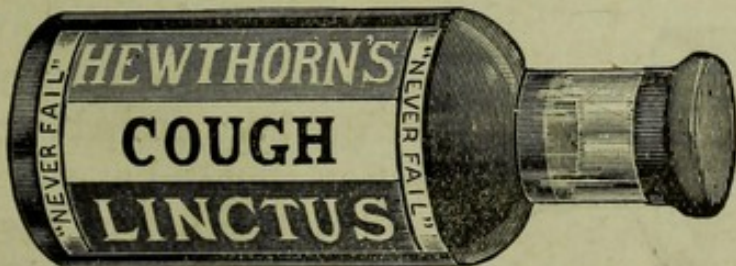
comfort the animal, promote circulation and perspiration; and **CURE EVEN SEEMINGLY HOPELESS CASES**. Nothing equals them for Coughs, Bronchitis, Asthma, Broken Wind, Roaring, &c. **17/6** per dozen.

➔ Hewthorn's Cough Powders and Cough Balls are most successful also. When the throat is too swollen to permit the animal to swallow use **HEWTHORN'S COUGH LINCTUS** (see below).

HEWTHORN'S COUGH LINCTUS

FOR ANIMALS UNABLE TO SWALLOW.

Relieves Soreness; Soothes Irritation Completely;
AND STOPS COUGHING AT ONCE.

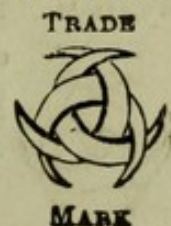


For use in cases where the throat is so swollen that a Cough Drink might choke the animal. Highly beneficial for Cough, Bronchitis, Pneumonia, Pleurisy, Touched or Broken Wind,

Roaring and other diseases of the Respiratory Organs. **UNVARYING SUCCESS ATTENDS ITS USE**, and the effect is **MARVELLOUS** even in seemingly hopeless cases.

Price **17/6** per doz.

**F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.**



HEWTHORN'S ANTIFEBRILE STIMULANT

An Unrivalled Stimulant & Restorer,
And Magnificent Fever Cure Combined.



This is the Most Reliable Remedy, for Milk Fever, and all Feverish and Inflammatory Parturition Troubles ever brought out.

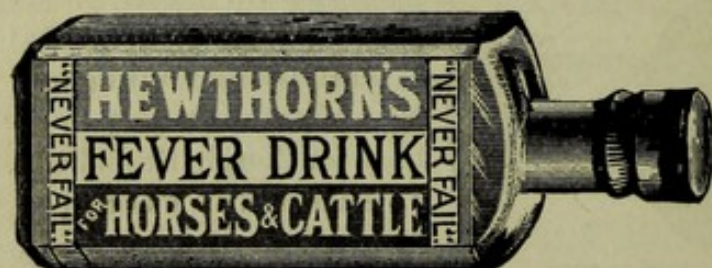
IT COMBINES THREE VALUABLE PROPERTIES

It rapidly lowers temperature and pulse; reduces Pain, Fever and Inflammation; and at the same time actually stimulates the exhausted animals and improves their strength, circulation, nerve and vitality. It is a complete Febrifuge, Diaphoretic, Diuretic, and Stimulant. Price 19/6 per dozen.

FAR AHEAD OF EVERY OTHER MEDICINE.

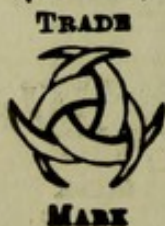
HEWTHORN'S FEVER DRINKS.

The Grandest Medicines Known.



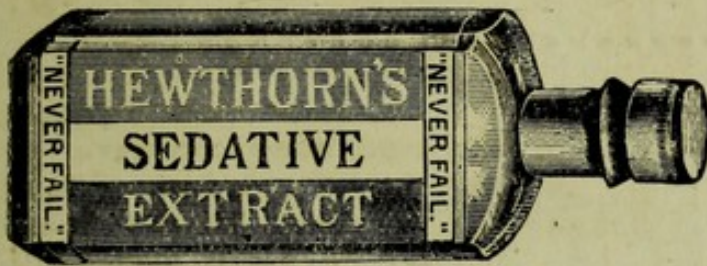
Unrivalled for quick and thoroughly effective curative action in all Feverish and Inflammatory Disorders. They cool the

system, reduce the temperature, banish feverishness, and quickly restore cool skin, quiet pulse, and completely healthy condition. 17/6 per dozen.



F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

HEWTHORN'S SEDATIVE EXTRACT.



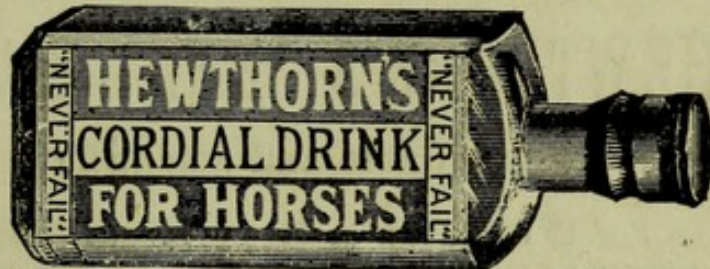
Unequaled for violent Spasms, Colic, Bowel Inflammation, Bad Diarrhoea, Influenza, painful Bronchitis and Pneumonia; for Mares, Cows and Ewes in straining, paining, &c., and

AFTER DIFFICULT PARTURITION and ABORTION, followed by Pain and Fever Symptoms. AN INSTANT "PAIN-SOOTHER," allays Irritation and Inflammation, and GIVES RELIEF, EASE and COMFORT. Price 3/- per Bottle.

HEWTHORN'S CORDIAL DRINK.

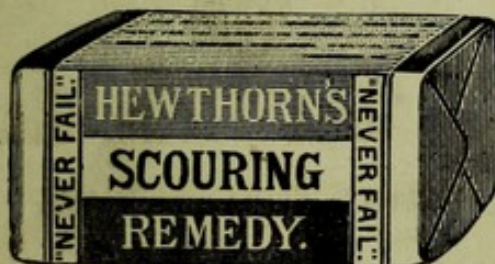
For quickly restoring vitality, strength & vigour to tired Horses

(ESPECIALLY FOR HUNTERS), reviving and stimulating Appetite and Digestion.



AN UNMATCHED INVIGORATER; giving energy and full power again after fatigue, extra heavy work, or after the effects of Illness, Debility, &c. Price 17/6 per dozen Bottles.

HEWTHORN'S "SCOUR CURE."



HEWTHORN'S SCOURING REMEDY is unailing for checking and curing Scouring Skit, and Diarrhoea in Foals, Calves, Lambs, and all Animals. It **STOPS THE SCOURING AT ONCE**, neutralising acidity and flatulence, and

removing all irritation. It quickly soothes and restores health to the whole system, acts as a reviving cordial, and **QUICKLY CURES EVEN VERY BAD CASES.**

Price 1/6 per lb. Tin; or in large Tins, 24/- each.

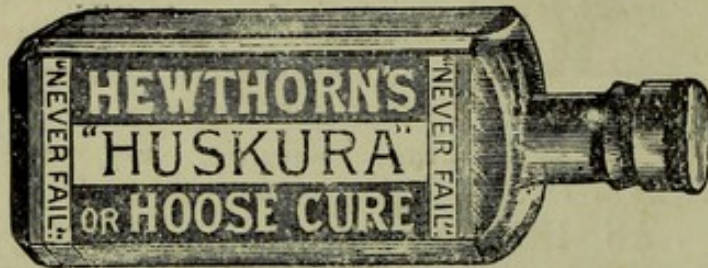


Carriage paid on assorted orders of 20/- value.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

THE BEST CURE FOR HUSK.
HEWTHORN'S "HUSKURA"

.....



It effectually destroys and completely removes all Parasites from Lung Passages, Wind Pipe and Bowels; it soothes the irritated surfaces, and helps greatly to restore strength to the wasted animal.

UTTERLY EXTERMINATES ALL LUNG WORMS

In Calves, Sheep and Lambs, and in Horses, Cattle and Pigs. 24/- per dozen.

HEWTHORN'S RED WATER REMEDY.

A Most Reliable and Scientific Veterinary Discovery.

For RED WATER or MOOR ILL in Horses, Cows and Sheep, this SPECIALLY RECOMMENDED SPECIFIC rarely fails. Every Farmer should keep a Supply for instant use if any symptoms are noticed. If used promptly, with Hewthorn's Red Water Powders, AN EASY CURE CAN BE ALMOST ALWAYS RELIED ON.

Prices, "Remedy" 2/- per Bottle; "Powders" 12/- per dozen.

HEWTHORN'S CARMINATIVE LAXATIVE OIL.

Specially Prepared for young Colts, Calves, Lambs and Pigs.

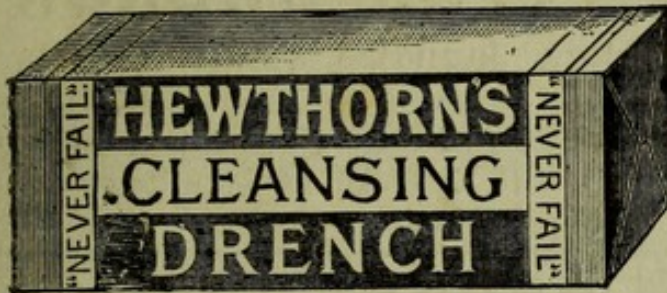
It is an absolutely reliable, EFFECTUAL AND SAFE LAXATIVE, and will remove all irritating matter from the Bowels. Much Superior to Purging Drenches, or Physic Balls, for young animals. Very safe and efficacious in Inflammatory cases, and soothing to the membranes, as ITS ACTION IS NOT GRIPING. Price 17/6 per Dozen.

F. HEWTHORN & Co. Ltd., 70, Finsbury Pavement,
LONDON, E.C.

CLEANSING ! COOLING !! PURIFYING !!!

HEWTHORN'S CLEANSING DRENCH.

Fever & Inflammation Prevented.



It Cools and Cleanses the System & checks all Feverish Symptoms. For Cows and Ewes, both before and after Calving or Lambing, it is

Specially Recommended for preventing Inflammation and Fever, for ensuring full and proper discharge of the "after-birth,"

especially in cases of weakness, and also for producing a copious supply of wholesome milk.

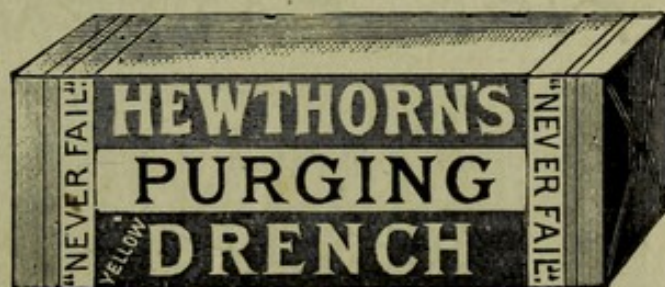
An admirable preventive of Milk Fever and Inflammation in Cows and Ewes, and a useful remedy in cases of Indigestion, Costiveness, Yellows, Hidebound, Loss of Cud, Fevers, Colds, Pleurisy, Garget, &c. **11/6** per Dozen.

HEWTHORN'S PURGING DRENCH.

The Best Cattle Purge Known.

An unfailing Cure, even in the **most obstinate cases** of Constipation of the Bowels in Horned Stock, and a reliable and very effective Purge. It **thoroughly Cleanses the System**, and has proved itself the

Most Successful Remedy for curing Stoppage, Hidebound, Surfeits in Cattle, Sheep and Pigs; and in cases of Fevers, Colds, Indigestion, Yellows, Red Water, &c.



It is also adapted (in the absence of **Hewthorn's Cleansing Drench**) for Cleansing after Calving, for Purifying the Milk, and tending to **Prevent Inflammation and Milk Fever.** **11/6** per Dozen.

Carriage paid on all orders of 20/- and upwards.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

XXI.



HEWTHORN'S CORDIAL DRENCH.

A very excellent general Remedy for Chills, Colds, Exhaustion, Yellow, Diarrhœa, Debility, Weakness after Calving, Lambing, &c. It quickly acts in all cases, and with great reliability and effect as a Warming, Stimulating, Aromatic Stomachic, and is one of the most successful Medicines known, especially in the early stage, for want of Strength and Condition, and for a large variety of disorders arising from weak poor condition. Price 11/6 per doz. Drenches.

HEWTHORN'S LIVER DRENCH.

All Liver Disorders, Yellow Jaundice and Indigestion, are speedily remedied by this *Specially Prepared and exceedingly Effective Drench*. For FOUL BREATH and ILL CONDITION of the SKIN in CATTLE, HORSES and SHEEP it will be found of very great value. Price 11/6 per Dozen.

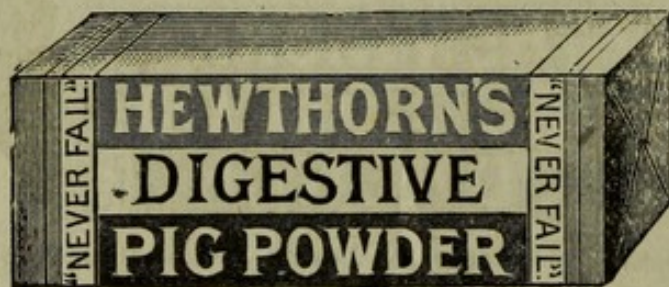
HEWTHORN'S FELON DRENCH

For Rheumatism, Chine Felon & Joint Felon. *An effective Cure, even when other Remedies quite fail.* It COOLS, RELIEVES THE PAIN, and ERADICATES THE DISEASE. 12/6 per Dozen.

HEWTHORN'S "DRYING-OFF" DRENCH.

For gradually diminishing the milk without injurious effects on the Cow, or liability to Garget. Price 10/6 per dozen Drenches. Besides this Drench HEWTHORN'S DRYING-OFF OINTMENT rubbed into the Udder will also be found very helpful in drying-off. Price 2/- per Jar.

PIGS FATTEN FAST ON



For Purifying the Blood, Improving the Appetite and Digestion, and Quickening Growth, it is unequalled. It is an Admirable Powder for curing Pig Diseases, Coughs,

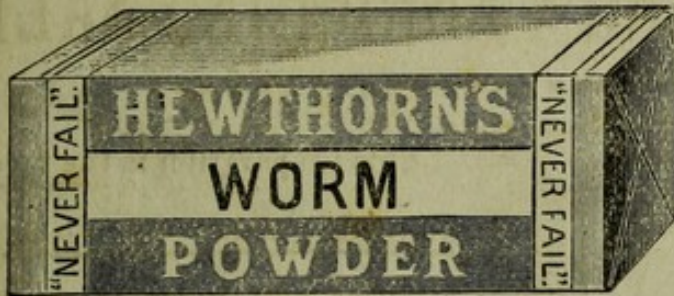
Costiveness, Unthriftiness, Debility, Indigestion, Skin Diseases, Inflammatory Disorders, Fits, &c., and for Preventing Swine Fever. It is especially adapted for Sows before and after farrowing.

Price 2/- per Dozen Packets ; or in large Tins, 24/- each.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

A Thorough Cure for Worms !!

HEWTHORN'S WORM POWDERS.



For completely and rapidly clearing out Worms in Horses and Colts, these Powders are

**MOST POWERFUL
AND EFFECTIVE**

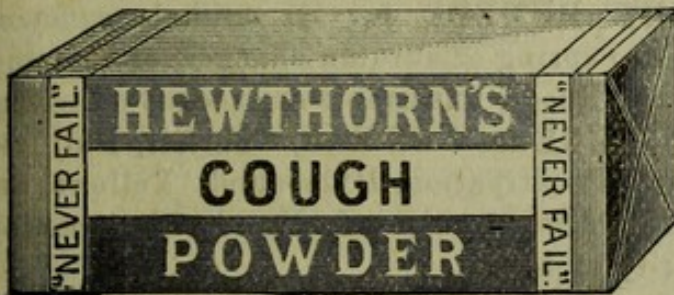
They will thoroughly eradicate them in a week, even in bad cases; and produce no injurious effect whatever on the animals. They are

RAPID, RELIABLE, and UNFAILING.

Price, in packets, 6/6 per dozen; or in large tins, 24/- each.

The Quickest and Best Cough Cure!

HEWTHORN'S COUGH POWDERS.



The most thoroughly effective and quickest acting Cough Powders known. A sure and rapid remedy for Chronic Coughs, Thick Wind, Asthma, Bronchitis, and all similar Chest troubles. Even in severe cases they give

**PROMPT RELIEF & QUICK
and THOROUGH CURE.**

They stop the coughing, soothe the irritated air passages, and are unrivalled in their **COMPLETELY BENEFICIAL & CURATIVE EFFECTS.**

Prices, in packets, 6/6 per dozen; or in large tins, 24/- each.

N.B.—When "balling" is not inconvenient **Hewthorn's Cough or Worm Balls** are more certain in action with dainty Horses than Powders.

HEWTHORN'S PURGING LIQUID

A SPECIALLY RAPID AND EFFECTIVE PURGE FOR HORSES.

Acts much quicker than a Ball, thoroughly clears the bowels, and is a very valuable and rapid remedy in cases of stoppage. Price 1/6 per bottle.

**F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.**

The Finest BLOOD PURIFIER Known
For All Animals.

HEWTHORN'S BLOOD PURIFYING & ENRICHING SALT



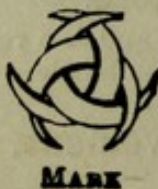
This preparation is the most powerful and thorough cleanser and purifier of the whole animal system that can be prepared.

IT STIMULATES THE ACTION OF EVERY ORGAN,—bowels, liver, kidneys and stomach; quickly expels all accumulations of waste and injurious matter;—**CLEANSSES** and **INVIGORATES EVERY PART** of the digestive system and functions, and sets the whole process of excretion, secretion and assimilation in active and thorough working order.

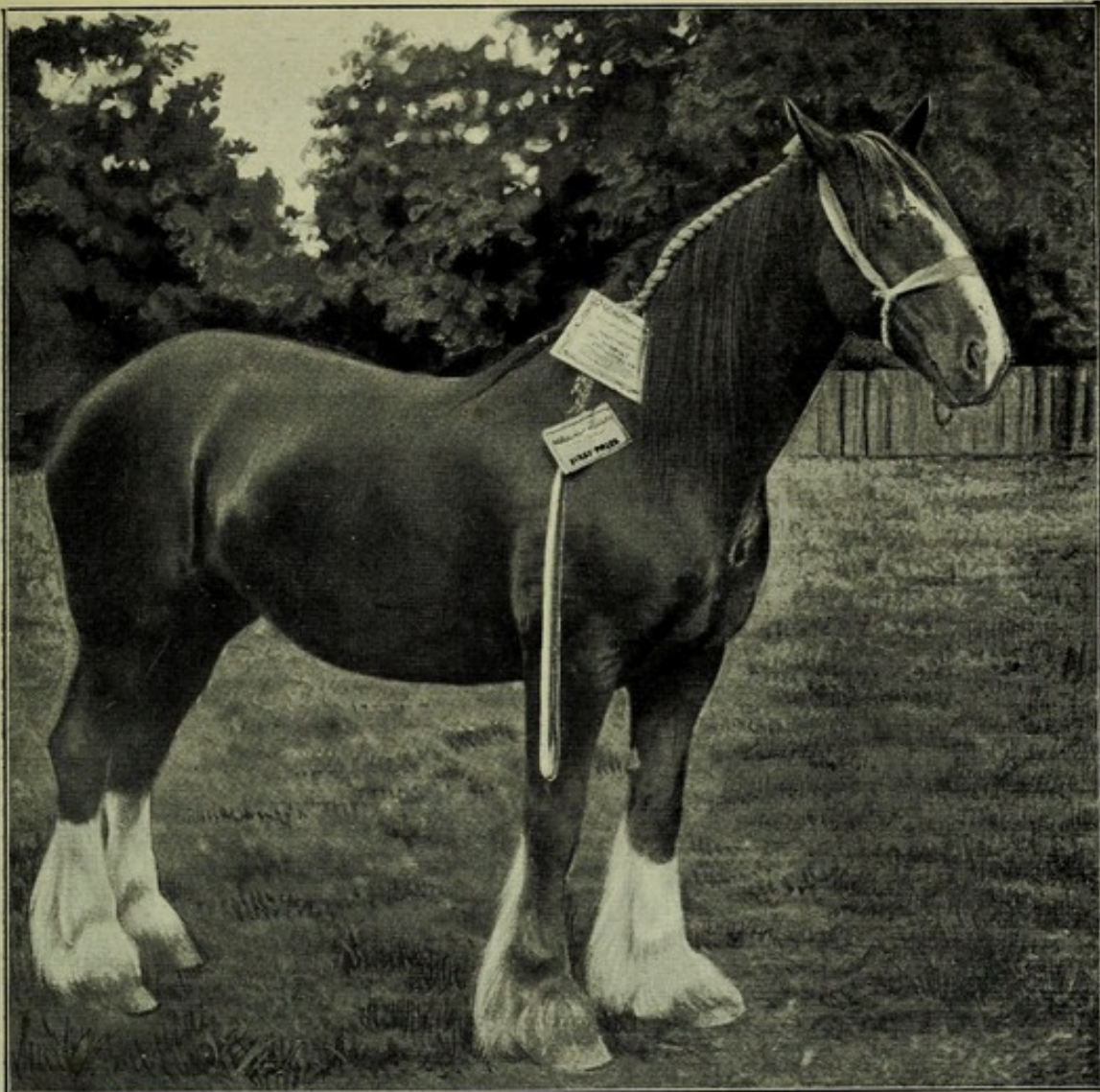
IT IS A **MAGNIFICENT REMEDY** for all animals suffering from blood disorders incidental to spring or autumn changes, or extremes of heat or cold; or to improper, poor, unsuitable or excessive feeding; **AND IS AN INFALLIBLE CURE** for "Off Feed," Surfeit, Dullness, Indigestion, Blotchiness, Scurf, Constipation, Hidebound, Yellows, and the other numerous and troublesome results of disordered digestion, over-gorged organs, and impurity of blood.

A fortnight to a month's use of it will thoroughly cleanse and **RESTORE EVERY ORGAN TO HEALTHY ACTIVITY**; and, if followed by a few weeks' use of Hewthorn's "Tonoss" Condition Powder, will convert the previously miserable-looking animal into a sleek, thriving, and much **MORE VALUABLE & HEALTHY BEAST**. Prices, boxes of 12 doz. packets; or in large tins, 24/- each; or 45/- cwt.

(N. B.—This is *not a condiment*, and is much cheaper and better than any other preparation. It is a cleansing, purifying alterative, and only needs using for a short time to do its special work.



F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.



“**SAXON FLOWER**” (20804). Late the Property of Hewthorn & Co.'s Customer, W. PARRY JONES, Esq., Gop Hall, Rhuddlan, N. Wales.

Winner of 20 First, Hewthorn's Silver Cup, and many other Prizes.

“I have used your Thriving Mixture for **SHIRE YEARLING FILLIES**, and it has kept them in **GOOD HEALTH AND FREE FROM WORMS**. I have given them **HALF THE USUAL QUANTITY OF OATS AND BRAN**, and added your Mixture, and I am pleased with the way they have done.”—A. A. ANSTEE, Manor Farm, Doynton.

“I am more than pleased with the **GRUEL POWDERS**; they **ARE FAR IN FRONT** of anything else, especially with young horses on a long journey, besides being **MORE ECONOMICAL**.”—G. A. WATSON, Job Master, 69, Dunlace Road, Clapton.

“I got the **BLOOD PURIFYING SALTS** for a mare which was down in condition and suffering from open sores. Since using them she has **GREATLY IMPROVED**, and the skin is whole and **THE COAT HEALTHY**.”—D. J. S. LYELL, Craigend, Crieff.

“Your **HORSE CONDITIONING POWDERS** have always given me the greatest satisfaction, especially for giving horses on journeys **GOOD STAYING POWER** when you have to press them. I always recommend them.”—C. STURGES, 46, Grove Street, Southampton.

“Your **HARNESS OIL** has given us every satisfaction, and **WE HAVE OBTAINED BETTER RESULTS** with it than from any other we have used, **WITH LESS LABOUR**.”—IND COOPE & Co., Ltd., Romford.



TWO CALVES. Born February 27th, 1903. The Property of Hewthorn & Co.'s Customer, J. JONES, Esq., Voel Cadeirian, Llangerniew. *Winners of First Prize, Vale of Conway Show, August 13th, 1903.*

“HORSE THRIVING MIXTURE ANSWERED ALL THAT YOU SAID IT WOULD. My **HORSES’** coats are much finer, and they are every way better **ON LESS CORN** than before I began it.”—THOS. BARTHOLOMEW, 117, Nottingham Street, Rotherham.

“I find your **CONDITIONING POWDERS** thoroughly effective and satisfactory for appetite and condition; **MONEY IN THE MASTER’S POCKET AND FLESH ON THE HORSE’S BONES.**”—CHAS. COSSER, Coombe Farm, Sturminster Marshall, Wimborne.

“I reared 11 Calves on your **MILK SUBSTITUTE** with **VERY LITTLE TROUBLE; GOOD GROWTH** of flesh and bone; **NO SCOUR AT ALL;** and **VERY LITTLE MILK.**”—WILLIAM WHIELDON, Gravelly Bank Farm, Hollington.

“Your **ANTIFEBRILE STIMULANT** (Influenza Drink) **ACTS LIKE MAGIC & NEVER FAILS** in that horrible disease commonly called Pink Eye.”—HENRY HANDFORD, 2a, Denmark Road, Folkestone.

“I never bought any **HARNESS OIL** as good as yours. It **GIVES THE LEATHER A SPLENDID APPEARANCE** and makes it **SOFT AND DURABLE.** No other oil compares to yours.”—HENRY CLARKE, The Grange, Stonea, near March.

The MOST VALUABLE RESTORATIVE and
TONIC CONDITIONER KNOWN.

.....

HEWTHORN'S "TONOSS" CONDITIONING POWDER.

.....



For quickly restoring
strength, stamina, and healthy
condition to all animals this
Powder is unequalled.

ITS RESULTS ARE
MARVELLOUSLY RAPID,

and it acts instantly on the whole system; immediately invigorating the muscular powers, improving the tone of digestion, sharpening the appetite, and restoring strength; and after a few days' use all animals shew **GREAT VISIBLE IMPROVEMENT** in coat, condition, vitality, strength, and general health and appearance. Nothing else so **RAPIDLY RESTORES HEALTH AND SLEEKNESS** to weak horses, mares, cows, ewes, or sows, sickly young animals, or any over-worked, exhausted, debilitated, or run-down from any cause.

A fortnight to a month's treatment with it will change the poorest animal into a sleek-looking hearty one; and it is much the **FINEST PREPARATION IN THE WORLD** for rapidly getting all stock—especially horses—into

THE PINK OF CONDITION FOR SHOW OR SALE.

Prices, boxes of 12 doz. packets; or in large tins, 24/- each; or 45/- cwt.

N.B.—It is *not a condiment*, but a scientific veterinary preparation, used for a short time only, expressly to improve vitality and condition.



F. HEWTHORN & Co., Ltd.
70, Finsbury Pavement, LONDON, E.C.

To Cleanse and Purify the System. —

HEWTHORN'S

SPECIAL

MEDICATED POWDERS

FOR HORSES

Are most Efficacious and Economical.



They possess remarkably effective and valuable blood purifying and cleansing properties; and are unequalled as a quick and thorough remedy for surfeit, humours, and such like impurities. They purge and invigorate the whole system, and a few doses will work a rapid change in the horse's condition, health, and appearance. They cleanse the blood, brighten the coat and eyes, clear the skin, impart full energy and vigour; and can be used without interfering with work.

Invaluable for Unthriftiness, Indigestion, Sluggishness, Off Appetite, Surfeits, Staring Coats, Sores, Ill Condition, &c. For Barren Mares and Sterile Horses they have been proved a most successful Stimulator, as they act beneficially on the whole system, and assist and develop every function. They should be given to all Horses before and after being turned out to grass.

Price 21/- per box of 250 packets; or 24/- per large Tin.

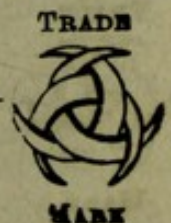
HEWTHORN'S HORSE POWDERS.



A special form of Hewthorn's Horse Thriving Mixture in daily feed packets for use on journeys, or where an exact quantity is required to be served out to feeders. Very economical & satisfactory, especially for keeping Horses fit during extra work.

Price 21/- per box of 250 packets.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.



TO QUICKLY REVIVE A TIRED HORSE, USE

HEWTHORN'S CELEBRATED REVIVING GRUEL POWDERS.



Restore Vigour & Appetite
at once to an exhausted Horse.—
Invaluable for maintaining **FULL
ENERGY** and **STRENGTH**
during long hard work in busy
times. Prevent Horses knock-
ing up and requiring days for
rest; and enable them to **WORK
BETTER AND LONGER**,
and keep them fresh, strong and

fit in **ALL WEATHERS.**

They put New Life into a Tired Horse, revive
him and give good appetite when too "done" to
eat, and are much Superior to all other Powders
in every respect.

They are **SPECIALLY VALUABLE TO
HORSEKEEPERS** who do contract work, carting, &c.
where the Horses have at times to be worked hard and for
long hours; and also to Farmers, Mineral Water Makers,
Brewers, Contractors, and to Tradesmen generally.

HEWTHORN'S GRUEL POWDERS supply at once both a
highly nutritious food and a powerful tonic; restoring full energy and
giving life and strength to Horses exhausted with extreme exertion.
They make a splendid gruel for Hunters and for all Working Horses
after hard work or a tiring journey; and are invaluable for weak animals.
Not only are they **HIGHLY NOURISHING**; but they contain
valuable tonics and **restoratives** that at once "pick up," revive
and put new life into the tired animal, **give good appetite, ensure
perfect digestion**, and act most beneficially in every way.

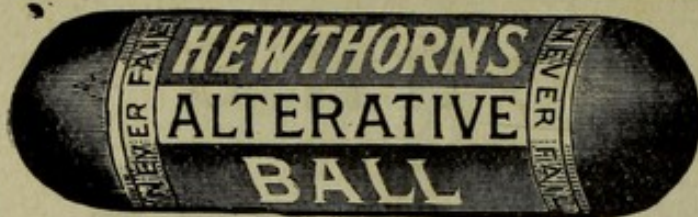
Price 21/- per box of 250 packets.

F. HEWTHORN & Co., Ltd.

70, Finsbury Pavement, LONDON, E.C.



HEWTHORN'S MATCHLESS HORSE BALLS.

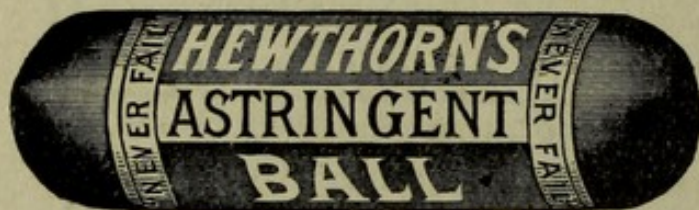


REMARKABLE IMPROVEMENT IN HEALTH &

**Unequaled for Diseases
Digestion and Circulation.**

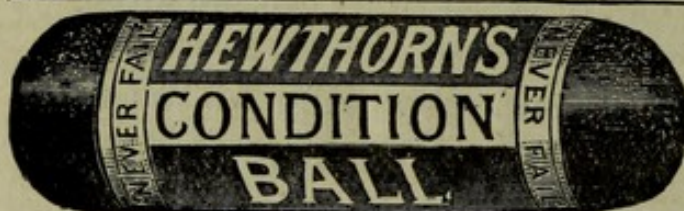
When Horses are off their feed or in low condition, and suffering from Hide Bound, Itching, Heat Lumps, Cracked Heels, Swelled Legs, Mange, Grease, &c., they soon create a very

CONDITION. Price 5/- per dozen.



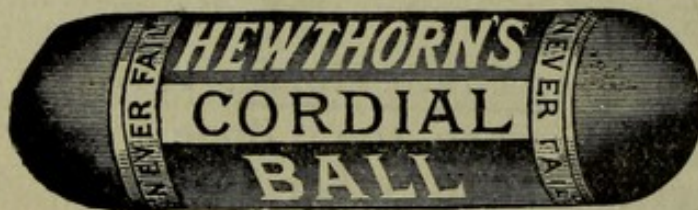
all cases for **CURING DIARRHŒA & DYSENTERY.** Price 5/- per dozen.

A most useful Remedy for stopping Excessive Purging and the weakness resulting therefrom, and for getting the Bowels into good normal condition. They act rapidly and soothingly, and can be specially recommended in



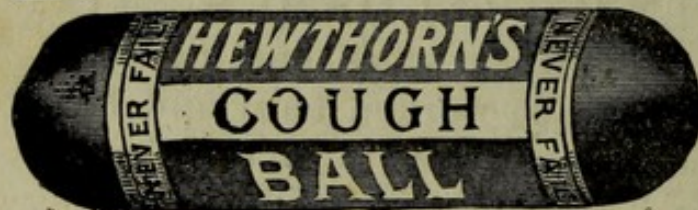
tite, and give First Rate Looks, Velvet Coat, and Perfect Condition. Price 5/- per dozen.

Horses preparing for Show or Sale will be vastly improved by their use. They rapidly improve the Coat, Brighten the Eyes and Skin, put every function into perfect order, **INCREASE ENERGY, VIGOUR AND STRENGTH** Improve Appetite,



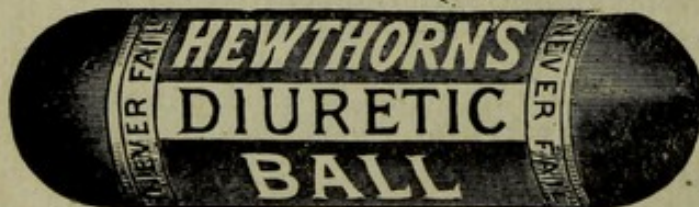
hunting, harvesting or any specially hard work. Price 5/- per dozen.

Improves the Appetite & Aids Digestion; gives New Life and Strength to exhausted, fatigued and worn-out animals. A warming, reviving and invigorating Tonic for Horses. Most excellent for Horses after a long day's



SPEEDILY RELIEVED, and in most cases **COMPLETELY CURED.** Price 5/- doz.

These Balls are made with the greatest care from a special Formula, and give the greatest satisfaction. Chronic Cough, Asthmatical Cough, Broken Wind Cough and Diseases of the Throat and Lungs can be



is cleansed, and many fertile sources of disease removed. Price 5/- per dozen.

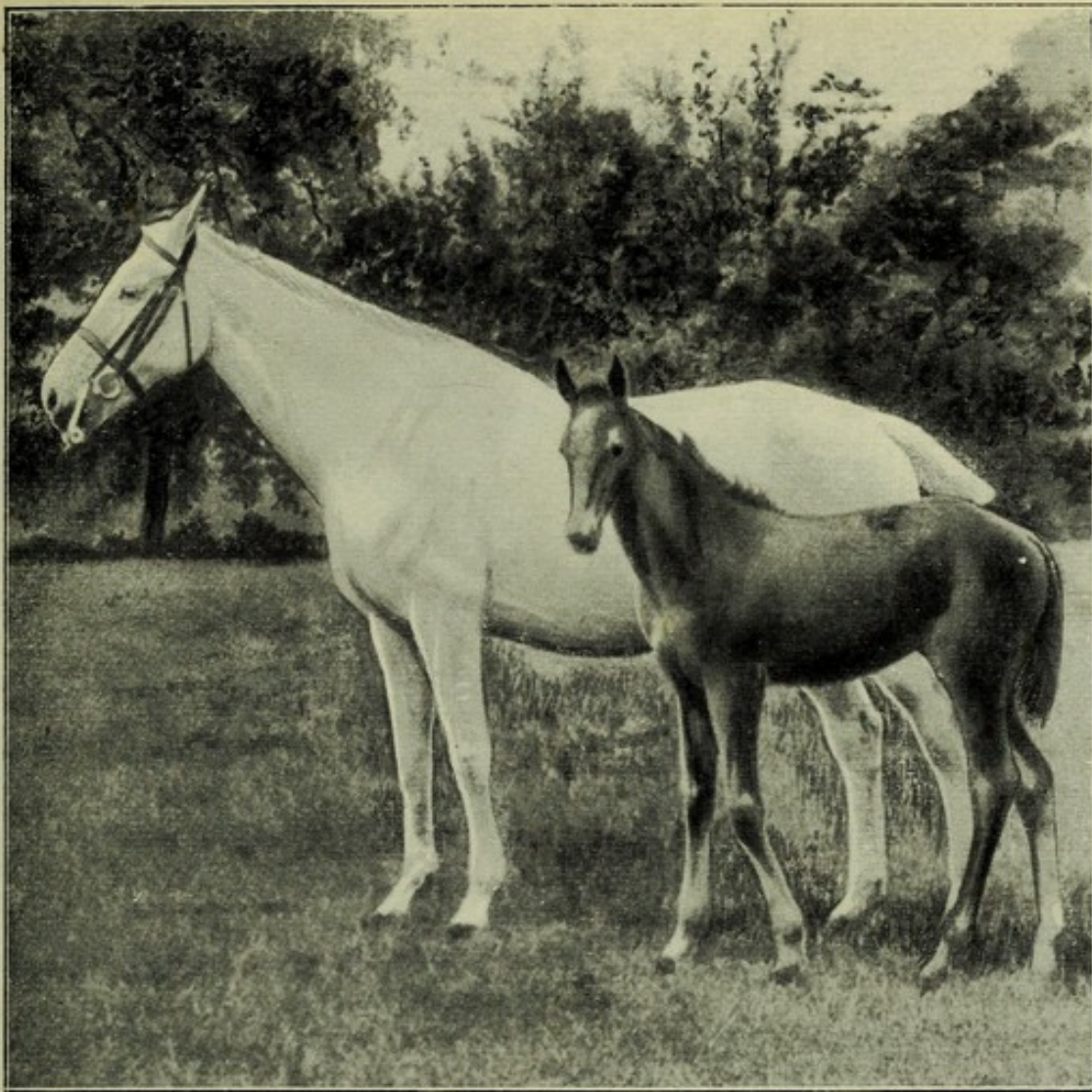
A Most Effectual Remedy for Kidney, Bladder and Dropsical Affections, Swelled Legs, Difficult Staling and Thick Water.

They cause increased Kidney action, and remove impurities, from the Blood. By their use the system

HEWTHORN'S PURIFYING BALL.

THE DEALER'S FRIEND. THE HORSE KEEPERS BEST REMEDY.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement, London, E.C.



MARE "GREYLING" (1041) and FOAL. The Property of Hewthorn & Co.'s Customer, R. M. DARLINGTON, Esq., Haston, Hadnall, Shrewsbury.

Winner of 5 First, 4 Champion, and many other Prizes.

"Your **PIG THRIVING MIXTURE** is especially good for young pigs. It keeps them **HEALTHY AND GROWING**, and gives **GOOD APPETITE**. For fattening pigs I never used anything to equal it."
J. PRICE, Elm Farm, Ewyas Harold.

"I find **NOTHING TO EQUAL YOUR GRUEL POWDER** or anywhere near it. I have kept horses for 40 years, and not had a horse sick since using it."—JOHN EVANS, Cab Proprietor, Cwmaman, near Aberdare.

"I have used your **EMBROCATION** to my Show Jumpers' legs, &c. during this Summer; and I think it has been one of the means of my having such **A SUCCESSFUL SEASON**. I also find your **Magic HEALING OILS TO BE ALL YOU CLAIM FOR THEM**."—W. FAVELL, Meadow Street, Sheffield.

"The **MEDICINES** in the chest gave **EVERY SATISFACTION, AND ENTIRE RELIEF** in the diseases they were recommended for; more especially your **GASEOUS BLACK DRINK**. **IN CASES OF COLIC IT WORKED LIKE MAGIC**."—W. HODGKINSON, Yarnold Farm, Bournheath, Bromsgrove.

"Your **PIG THRIVING MIXTURE** is **THE FINEST I HAVE EVER USED**. I rear about 200 pigs every year, and since using it I have had **EXCELLENT RESULTS BOTH WITH SOWS AND YOUNG PIGS**."—JOHN HULL, Woodhouse Farm, Stoke-on-Tern.



“ ARVON MAIDEN.” The Property of Hewthorn & Co.’s Customer,
W. PIERCE - WILLIAMS, Esq., Forester Charity, Llandudno.

Winner of 8 First, Hewthorn’s Silver Cup, and many other Prizes

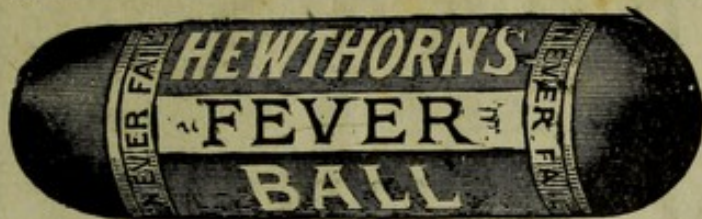
“ We have tried your **PRESERVATIVE** thoroughly, both as a dust on meat and as a preservative for saving Brawn, &c., and find that it **KEEPS THE STUFF FAR LONGER THAN ANY OTHER** we have tried. We may say that we have tried all the leading makers’ Preservative Powders.”—CLAPHAM PARK MEAT COMPANY, Butchers, 44, Abbeville Road, Clapham, S. W.

“ We find your Cough Linctus most valuable. We had a Horse very bad with a cough, and after 2 bottles he was ‘set up’ and much improved in flesh. We also had a very valuable Belgian, 3 years old, which was taken bad, and I believe **THE LINCTUS SAVED HIM FROM BEING BROKEN WINDED.** He is now in good sound health.”—SMITH & SONS, 691, 693 & 701, Ormskirk Road, Pemberton.

“ Your **GASEOUS BLACK DRINK WAS SUCCESSFUL** on a Mare **WITH THE WORST COLIC** I ever saw. I had treated her with another medicine which I had always used previously, without any relief, but your remedy **OPERATED ALMOST IMMEDIATELY.**”—HUGH FLEMING, Felmersham, Sharnbrook.

“ Your **CART GREASE** is the **BEST ‘NON-CLOGGABLE’ AND EASY RUNNING** Grease I ever met with. We use it for everything requiring grease, down to roller bearings and plough wheels, and my carters also tell me that it is the best grease they have had. It **DOES NOT DRY UP AND GET HARD.**”—HY. T. KENT, Dewlish, Dorchester.

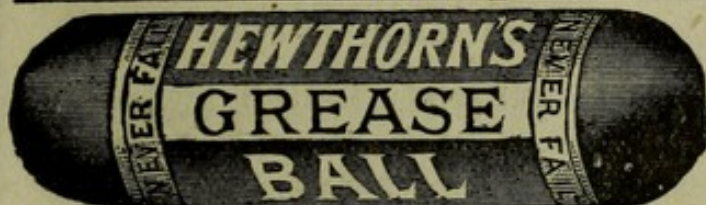
HEWTHORN'S MATCHLESS HORSE BALLS.



great nervous excitement, quick pulse, and violent heart action. Price 5/- per dozen.

**Steady the Nerves,
Reduce Fever Quickly,
and Allay Inflammation.**

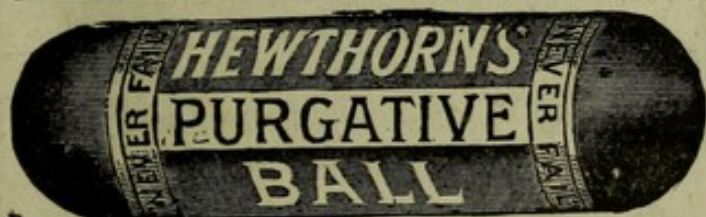
Are of the very greatest service in Fever, Inflammation of the Lungs, Bronchitis, Pleurisy, Laminitis and similar complaints, where there is



A SURE AND PERMANENT CURE will be speedily effected. Price 5/- per dozen.

For the treatment of Horses suffering from GREASE and similar diseases, these will be found of the greatest benefit; and, if used in conjunction with

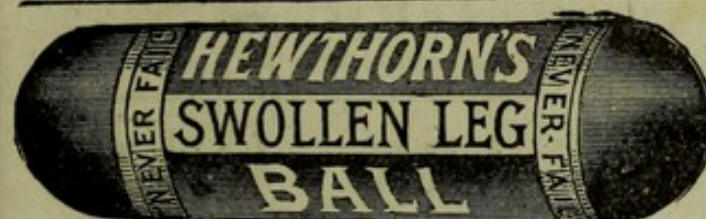
Hewthorn's Grease Dressing



HEALTHY ACTION OF ALL ORGANS. Price 5/- per dozen.

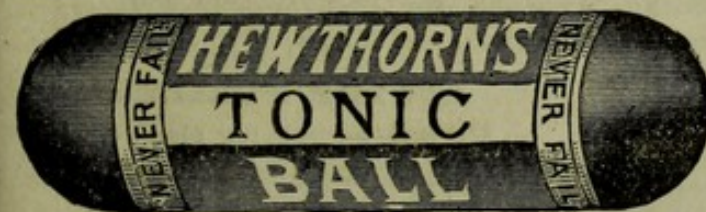
**A Thoroughly Effective
Purge**

For Horses that are Constipated, Bound, Out of Condition, Gross or suffering from Surfeit. They remove all objectionable matter from the stomach and intestines, cleanse the blood, and RESTORE THE



and for IMPROVING THE COAT AND CONDITION. Price 5/- per dozen.

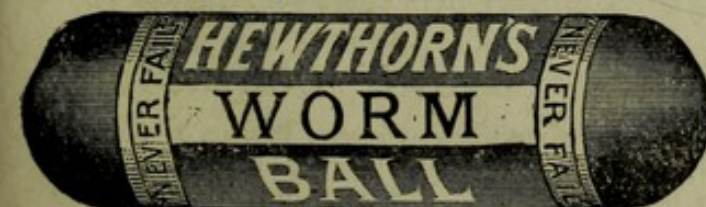
This is one of the finest remedies for Swollen Leg, Shot of Grease and similar complaints ever produced. It is also of the greatest use in cases of Colds, Indigestion, Staring Coat, Lampas, Humours, Off Appetite, Hide Bound, &c.;



AND STRENGTH. Price 5/- per dozen.

**Removes Debility, Dyspepsia,
Languor and Irritability.**

Increase the strength and improve the digestion. Animals recovering from Influenza, Fevers, &c., should have one occasionally to RESTORE FULL VIGOUR



SAFETY to the Animal. Price 5/- per dozen.

**For Quickly and Efficiently
Expelling Worms from Horses.**

They will produce no injurious or Depressing Effects, and no Remedy can be more certainly relied on. **THEY INSTANTLY EXPEL WORMS, WITH PERFECT**

HEWTHORN'S PURIFYING BALL acts both as a satisfactory Purgative, and also causes free and healthy flow of water. Is a valuable alterative also, and a wonderful Ball for setting a horse up after a journey, &c. Price 5/- per doz.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement, London, E.C.

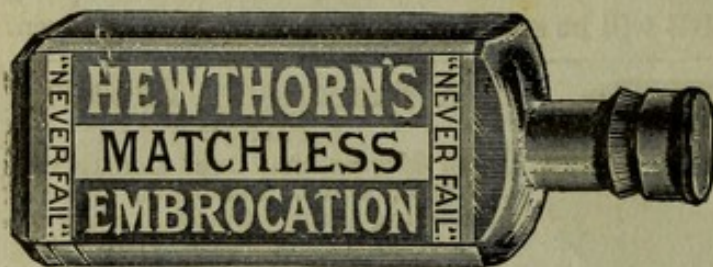
HEWTHORN'S

"MATCHLESS"

EMBROCAATION.

An Absolute and Rapid Cure

For Sprains, Strains, Swollen Joints, Relaxed Tendons, Lameness, Rheumatism, Weak Loins, Cramp, Sore Throat, &c.



Relieves pain, soreness and stiffness at once, and rapidly restores the strained bruised, or unhealthy part to a sound, healthy state.

THE MOST POWERFUL AND EFFECTIVE EMBROCAATION known for external application, where the skin is not raw or broken.

IT IS UNSURPASSED.

For relieving pain, bruises, soreness, and stiffness in all Animals. 21/- per dozen.

HEWTHORN'S BLACK OILS.

INSTANT HEALING & RELIEF!

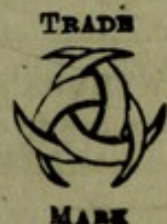
For Wounds, Cuts, Kicks, Bites, Bruises, &c., and for Sore Withers, Cracked Heels, Saddle Galls, Sore Shoulders, Udders, and Teats, &c.



SOOTHE, PURIFY and CURE as nothing else does; **PREVENT BLEEDING AND INFLAMMATION.** Heals all raw wounds quickly, quiets the pain; rapidly produces healthy action and

RESTORES TO THOROUGHLY SOUND CONDITION.

IN LAMBING, CALVING, &c., for Mares, Cows, Ewes & Sows use Hewthorn's Special Lambing and Calving Oils; (or this Oil, if they are not on hand.) Oils should be used liberally in all cases of straining, and after difficult Parturition and Bad Cleansing, as they will **Soothe the Injured Parts, Heal all Sore and Inflamed Surfaces very rapidly,** and neutralize the dangerous effects of decomposing organic matter. 24/- per dozen.



F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

THE SAFEST AND SUREST OILS KNOWN.
HEWTHORN'S
CALVING & LAMBING OILS

AN ENORMOUS ADVANCE on ALL OTHERS.



In LAMBING, CALVING, &c., for Mares, Cows, Ewes and Sows, these Oils should be used liberally in all cases of straining, and after difficult Parturition and Bad Cleansing, as they will

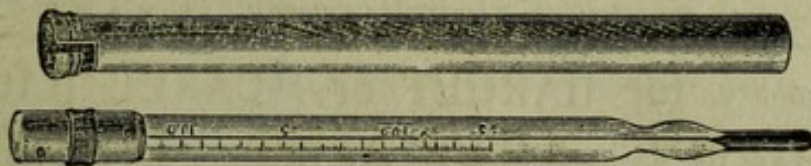
INSTANTLY HEAL, SOOTHE & PURIFY,
And PREVENT STRAINING & PAINING.

Far Superior to Old-fashioned "BLACK OILS,"

after delivery. They should always be used to anoint the arms and hands of those attending the animals at parturition.

THEY PREVENT BLEEDING AND INFLAMMATION. Heal all raw or scratched surfaces quickly; quiet the pain; rapidly produce healthy action; **RESTORE TO THOROUGHLY SOUND CONDITION;** and prevent endless aftertrouble, in the shape of Inflamed Parts, Fever, Bad Cleansing, and Womb complications. Price 24/- per dozen.

HEWTHORN'S VETERINARY
CLINICAL THERMOMETERS.

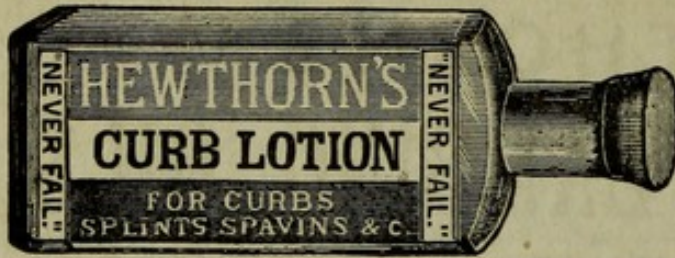


In a strong metal case, specially stout, extremely accurate. An unfailing index of the approach of disease in any animal. Marked at the normal healthy temperature point, so that any variation can be noted at once. Price 5/6 each.

Veterinary Instruments of all kinds,
Of Best Quality, at Lowest Prices.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

HEWTHORN'S CURB LOTION.



A wonderfully effective cure for **CURB, SPLINT, SPAVIN,** and all **BONY & CARTILAGINOUS ENLARGEMENTS.**

One Dressing is usually all that is required.

Price 3/6 and 6/6 per Bottle.

HEWTHORN'S DETERGENT LOTION.

For cleansing and purifying Foul Sores, Wounds, Ulcers, Inflamed and Unhealthy Raw Places. Speedily sets up healthy action. **A VERY EFFECTUAL**

REMEDY FOR LEUCORRHEA or "**WHITES**" in Cows. 2/6 per Bot.

Hewthorn's Mange and Skin Lotion.

A SPLENDIDLY EFFECTIVE CURE FOR MANGE Ringworm, Scab, Scurvy, and all Skin Diseases. It Prevents the Fly striking, Kills the **Maggot**s, and quickly heals the Sores, &c. Rapidly removes Lice and Vermin from Stock, and is unrivalled for **Exterminating Ox Warbles, Bots, &c.**

Price 2/- per Bottle; 7/6 per Gallon.

RELIEVES PAIN & REDUCES INFLAMMATION.



This should always be used *in the first instance* for Wounds, Cuts, Sores, Sore Shoulders, Saddle or Collar Galls, Broken Knees, Bruises, Sprains, &c. It soothes the pain, and very rapidly reduces the inflammation, and after its use

HEWTHORN'S MATCHLESS EMBROCATION OR HEWTHORN'S HEALING OIL will rapidly complete the cure. For Cracked Heels, Grease, Mallenders and Sallenders, Mud Fever, &c., *it is an admirable remedy.* Price 1/9 per Bottle.

Most Effective for **GARGET** or "**CAKED BAG.**"

HEWTHORN'S ABSORBENT LINIMENT.

For Swollen Glands, Old Swellings, Chronic Rheumatism, Strangles, Goitre, Weed, &c. It softens the hardened tissues, and disperses or absorbs the accumulated infiltrated matter, and **Restores to a Sound Healthy State.**

Price 3/6 per Bottle. Also **ABSORBENT OINTMENT**, 5/6 per jar.

HEWTHORN'S STYPTIC DRESSING

For **QUICKLY STOPPING "FLOODING" & BLEEDING** of all kinds. Invaluable for instant application to severe, deep cuts, wounds, &c. Checks the flow of blood, and forms a scar over the injured surface. Price 2/6 per Bottle.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

HEWTHORN'S SORE AND WOUND LOTION.

AN INVALUABLE LOTION for all running Sores, Wounds, &c. that require drying, before they will heal properly. **It purifies and quickly renders them healthy**, when they can be rapidly healed up with **Hewthorn's Healing Oils**. Price 1/6 per bottle, or 7/6 per gallon.

Also in **Powder Form**, for dusting on, 1/6 per tin.

HEWTHORN'S LIQUID BLISTER

Acts quickly and thoroughly, and **LEAVES NO BLEMISHES**. For Old Sprains, Spavins, Curbs Splints, Capped Hocks, Ringbones, Swellings, Bony Enlargements, for Chest Troubles, &c., and for all general Blistering purposes, it

MAY BE THOROUGHLY RELIED UPON. Price 3/- per Bottle.

Hewthorn's Blister Ointment.

AN INSTANTLY EFFECTIVE BLISTER for severe strains of Ligaments and Tendons, ThoroughPin, Capped Hock, Sidebones, Splints and Spavins, Seedy Toe, Paralysis, &c.—**NEVER BLEMISHES**. Invaluable also for severe Chest Complaints. Price 1/9 per Jar.

HEWTHORN'S SOOTHING OINTMENT.

For Painful Swellings, Inflamed Udders, Garget, Frostbite and all similar cases. It reduces Inflammation, **SOOTHES ALL PAIN**, and prepares for rapid cure by either **Hewthorn's Wound Lotion or Powder**, or by **Hewthorn's Absorbent Liniment**, according to the case.

HEWTHORN'S SPECIAL EYE OINTMENT is prepared for cases of Eye Injury, and is equally efficient. Prices 3/- per Jar.

HEWTHORN'S SKIN OINTMENT.



A FIRST-CLASS REMEDY FOR MANGE.

FOR DESTROYING ALL PARASITES in Horses, Cattle and Sheep; Lice, and all similar Skin Pests, Ringworm, Itching, &c.

Price 2/- per Jar.

HEWTHORN'S GREASE DRESSING

THE ONLY KNOWN CURE FOR GREASE IN HORSES.

And for **FOUL ULCERS, THRUSH**, & severe cases of **CRACKED HEELS**. Answers well where all other preparations are useless. 1/9 per Packet.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement, LONDON, E.C.

HEWTHORN'S HOOF DRESSING

The Best HOOF RESTORATIVE & CURE known.



The Finest Application in the World for improving the growth and sound condition of Horses' Feet, and a splendid Preventive and sure Remedy for Brittle or Shelly Feet, Cracked or Greasy Heels, Seedy Toe, Sand-cracks, Contraction, Corns, Weakness, Jars, Fever, False Quarter, Thrush, Navicular Disease, Laminitis, and almost all Hoof Troubles. It promotes and maintains good growth of Horn, and ensures healthy and sound condition of the Hoof in every way. Price 3/6 and 3/6 per Tin.

HEWTHORN'S FOOT DRESSING

A Safe and Certain Cure for Canker in Horses' Feet; Foot Rot in Sheep, and "Loo" and "Foul Foot" in Cattle. May be relied on as a Complete cure.

EFFECTIVE AND SPEEDY IN ACTION EVEN IN VERY BAD CASES.

Price 2/- per Bottle, less by the Quart,

HEWTHORN'S THRUSH OINTMENT

A SAFE AND MOST EFFECTIVE REMEDY

For Thrush in Horses' Feet, Loo or Low in Cattle, and for Foot Rot and Sore Feet in Sheep. It speedily heals the affected part, and RESTORES THE HOOF TO SOUND CONDITION. Price 2/3 per Jar.

HEWTHORN'S HOOF OIL.

Strengthening. Protective. Beautifying.

The finest Oil known for daily use on the Hoof. It Improves the Growth and Soundness of the Horn, waterproofs it—prevents cracks, &c.—and takes a fine polish which much smartens the look of the feet.

Prices *2/6 (a), 3/- (b), and 3/10 (c) per gallon.

* (a) In 40 gallon casks; (b) In 10 gallon drums; (c) In smaller quantities.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

HEWTHORN'S

SPECIALLY NOURISHING

COD LIVER OIL.

Given with Hewthorn's Cordial Drinks, &c., **IT SHOWS WONDERFUL RESULTS** with Mares, Cows, Ewes, &c., recovering from illness, parturition over work, &c., **NO FOOD NOURISHES SO QUICKLY**, and nothing so completely and rapidly gives back strength to all weakly animals, or so directly restores flesh, muscle and bodily stamina. Price 7/- per gallon.

HEWTHORN'S PURE CASTOR OIL.

The best refined Oil of highest purity. Price 7/- per gallon.
Also **EXTRA REFINED LINSEED OIL**, 5/6 per gallon.

HEWTHORN'S

SPECIAL VETERINARY

HEALING JELLY

FOR SORE TEATS.

An Unrivalled Healing Agent for all sore surfaces, for grazes, cuts, sore shoulders, &c.; and for every kind of wounds and injuries to skin and flesh. The Quickest, Healthiest and Most Effective Curing Ointment in existence. Soothes pain, removes inflammation and irritation, and completely cures and produces healthy, sound flesh with wonderful rapidity. An Absolutely Safe and Certain Remedy. Price, in large tins, 2/6 each, or 27/6 per dozen.

Ordinary Petroleum Jelly, 1/- per lb.



All Packages Free. Carriage paid on orders of 20/- value.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

XXXV.

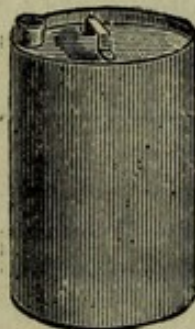
HEWTHORN'S Best Waterproof Harness Oil



Keeps Harness, &c., supple, soft and waterproof; and preserves and **nourishes the leather**. Clean handling, smooth, and very economical. The **cheapest and best** dressing for leather in the market. Specially valuable for increasing the lasting qualities of Cart and Van Harness.

* Prices—(a) 3/1; (b) 3/6; (c) 4/- per gall.

HEWTHORN'S BEST SPECIAL MACHINERY & ENGINE OILS.



For general Machinery, Shafting, Gas and Steam Engines, Agricultural Implements, &c. In two gravities; light, for quick-running Machinery; and heavy, for ordinary general use. These Oils **lubricate more perfectly**, go farther, give easier running, and preserve working surfaces from wear better than any other kind. They do not clog, harden, or cake, **last much longer than usual** in the bearings; and by their perfect lubrication repairs are greatly reduced, whilst a **great saving is secured** in the oil bill.

* Prices—light or heavy oil, (a) 1/5, (b) 2/0, (c) 2/3 per gall.

SPECIAL GAS ENGINE OIL.

The best oil known for this purpose. Prices, (a) 1/8; (b) 2/4; (c) 2/7 per gallon

HEWTHORN'S EXTRA REFINED CYLINDER OIL.

For High Speeds, and for use in "Sight" Lubricators, and for General Cylinder Lubrication.

This Oil is ordinarily sold at 3/6 to 4/6 per gall. It is far superior to Lard Oil. **Never corrodes**, keeps valves, cylinders and all surfaces perfectly clean; **lubricates to perfection**; and thereby greatly lengthens the "life" of the cylinders &c., and materially minimises repairs.

* Prices, (a) 1/6; (b) 2/1; (c) 2/5 per gallon.

* (a) 40 gallon casks, (b) 10 gallon drums,
(c) smaller quantities.

All Packages Free. Carriage paid on orders of 20/- value.

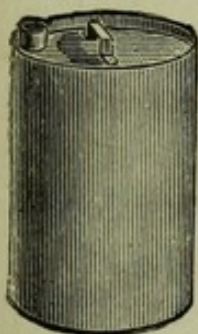
F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

TRADE



MARK

HEWTHORN'S EVERLASTING AXLE OILS. CART GREASES, — AND — AXLE JELLY.



HEWTHORN'S NEW AXLE OILS last four times as long as ordinary oils; are wonderfully Smooth and Easy Running, **never clog**, completely prevent wear in the Axles; and **One Filling will last over Three Months**. Are most Economical, and make Very Easy Work.

Prices—Best* for Waggon, &c. (a) 1/8, (b) 2/3, (c) 2/6 per gall. Extra Quality* for Patent Axles, (a) 2/3, (b) 2/9, (c) 3/- per gall.

* (a) 40 gallon casks, (b) 10 gallon drums, (c) smaller quantities.



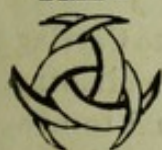
HEWTHORN'S CART GREASES

Are much More Durable and Economical than ordinary greases, last longer in the wheels; will not harden or clog; and being much lighter (more to the cwt.) are Much Cheaper to Use.

Prices—Best, 11/6 cwt. Extra quality, 16/6 cwt.

HEWTHORN'S AXLE JELLY is Waterproof and very easy running. It will not wash out, even when carting in water, &c., and has specially long wearing qualities. Price 23/- per cwt. cask.

TRADE



MARK

ALL PACKAGES FREE.

Carriage paid on orders of 20/- value.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

HEWTHORN'S

BRILLIANT, WATERPROOF

HARNES COMPO.



This Valuable Composition keeps the leather supple, prevents it cracking, **preserves and nourishes** it, and makes it wear and last much longer. It produces, with very little rubbing, a fine, **Brilliant Jet Black Polish**, and is lasting and **Quite Waterproof**.

Prices—1-lb. Tins (equal to 4 ordinary 1/- Tins), 18/- ; ½-lb. Tins, 11/- ; ¼-lb. 6/- per doz.



Mr. JOHN URRY, High Street, Seaford, says—"Your **HARNES COMPO** and **METAL POLISH** are splendid. The best I ever had in my place."

HEWTHORN'S METAL POLISH & PLATE POLISH.



Clean at once and give a **Splendid and Very Lasting Polish**, with far less labour than any other articles. They keep the surfaces untarnished twice as long as other Polishes do, and so **Save Half The Work**. For Harness Mountings, Brass Work, and all Plated

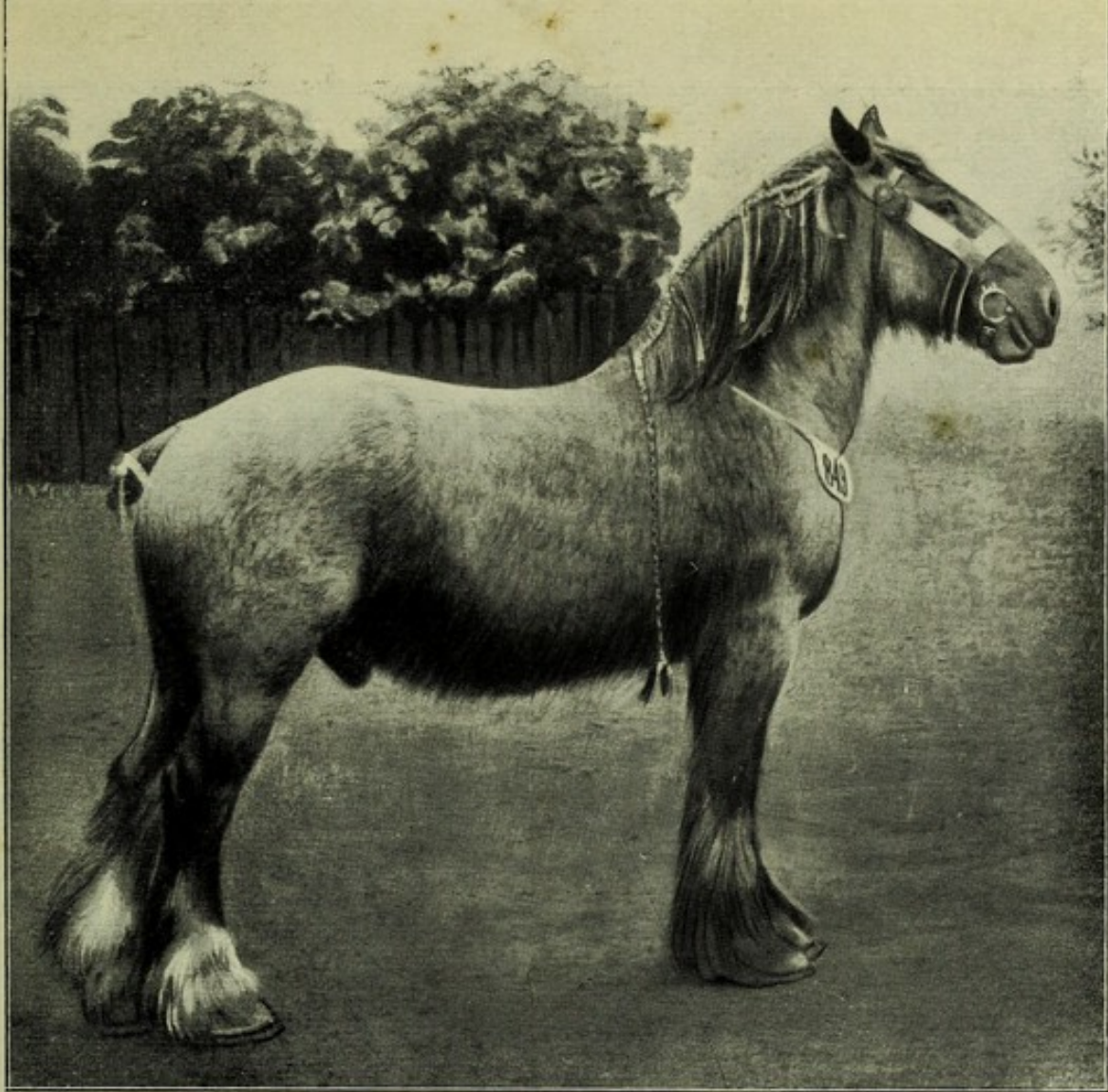
Goods, and Bright Metal they are unequalled. A little rubbing with a soft cloth is enough. **No Leathers are Required**

Prices—1-lb. Tins (equal to four 1/- Tins), 18/- ; ½-lb. Tins, 11/- ; ¼-lb. Tins, 6/- per dozen.

HEWTHORN'S Lustrous, Liquid LEATHER POLISH.

Gives a magnificent polished waterproof enamel-like surface to Carriage Hoods, Aprons, Collars, &c. **Requires no rubbing or polishing**, does not crack, and will make old leather articles look quite equal to new, at **half the usual cost** and with a **tenth of the usual labour**. Dries hard in half an hour and is quite impervious to rain.

Price 17/6 per gall., 5/6 per quart.



“REDLYNCH DUKE.” The Property of Hewthorn & Co.’s Customer,
W. EDWARDS, Esq., Spring Bank, Litherland, Liverpool.

Winner of First Prize, Shire Horse Show, 1902; &c., &c.

MR. W. TAYLOR, Westfield Dairy, Holmer, Hereford, got **84 GALLONS EXTRA MILK** from two cows in 42 days by using 8/6 worth of **HEWTHORN’S COW THRIVING MIXTURE**. (See his certificate.)

“The **CONDITIONING POWDERS** produced satisfactory improvements in coat, appetite, health, and condition, **AND INCREASED THE WORKING POWER AND ENERGY** of the horses.”—RD. ELLIOTT, Crown Hotel, Nenthead.

“I made an experiment with your **MILK SUBSTITUTE**. I reared Three Calves on Pure Milk (average cost 4/6 a week each), and averaged a gain of 12-lbs. per week each; I reared three others on Separated Milk and your Milk Substitute (average cost, about 1/11 per week each), and they gained 14½-lbs. average per week, which is inclusive proof of the excellence of your Meal and the **SAVING OF MONEY AND PROFIT TO THE REARER**.”—JOHN JONES, Pen y Palment, St. Asaph.

“Your **CLEANSING DRENCHES** and **BLACK DRINKS** have **SAVED A VERY VALUABLE** 2 year old **HEIFER** of mine, after the local Vet. gave up the case as hopeless.”—WILLIAM PRYMALLT, Bryn y Baal, Buckley, Mold.

“Your **FOOT-ROT DRESSING IS THE VERY BEST** I have used during the 40 years I have been farming.”—ABRAHAM FRANCIS, Sheep Dealer, Llanarmon, Mold.



F. HEWTHORN & CO.'S STAND.

At the Royal Dublin Society's Show, August, 1903.

Mr. JOHN WILLIAMS, Llendyddyn Llanasa, Holywell, got **260 GALLONS INCREASE IN MILK** from two cows in six weeks by using **HEWTHORN'S COW THRIVING MIXTURE**. (See his certificate.)

"Your **COUGH LINCTUS** is of such great service, not only being invaluable in its curative action but **SO HANDY TO USE**; I have had no failures, but **SUCCESS IN EVERY CASE** since using it."—JOHN TIBBETT, Stone Cross House, March.

"I have never been so **WELL SATISFIED** as since using your **EMBROCATION AND COUGH LINCTUS**, and always carry them in my show kit. I cannot speak too highly of your Medicines."—WILLIAM DODD, Earith, St. Ives.

"Your **SHEEP DIP** gave me every satisfaction. It is the **CHEAPEST AND BEST** I ever bought, and there is **NO TIME WASTED** in mixing and dissolving it when busy."—THOMAS GOODWIN, Morris Green, Bosley.

"I have used your **AXLE OIL** for the past two years, and it is very satisfactory; producing **EASY RUNNING, LASTING WELL** in the axles, and **PREVENTS WEAR**. It is better than any other oil I have tried, and is **VERY ECONOMICAL**."—JAMES TANN, Contractor, Grove Street, Retford.

The Horse Keeper's Sheet Anchor!
For Regular Daily Use.

HEWTHORN'S

INVIGORATING TONIC

THRIVING MIXTURE

FOR HORSES.



To keep horses fit during the strain on strength, health and stamina entailed by hard work and trying weather, and to fortify them and **prevent them breaking down** and requiring days of rest when work is most pressing, Hewthorn's Horse Thriving Mixture is **unequaled**; being both a scientifically compounded and powerful tonic, as well as a most beneficial digestive and appetiser.

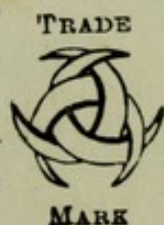
It is invaluable for hard-worked horses, gives Increased Strength, Energy and Working Power; and improved Appetite, Coat and Appearance; prevents sickness and loss of condition; gives better health, stamina and activity, and saves all waste of food.

A Marked Increase in Vigour and Vitality, and considerable saving of expense in keep, is secured by using this Mixture.

Its Use Doubly Repays its Cost. It tempts the worst feeders to eat well, ensures regular healthy action of bowels and stomach; and physic, condition balls, &c., are not required. Large horse owners find it makes their horses work better, harder, and longer.

Price 34/- per Cwt.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.



HEWTHORN'S

UNRIVALLED

COW THRIVING MIXTURE.



Its regular use tends to produce **BETTER QUALITY AND QUANTITY OF MILK**, to prevent waste in the manger, and to secure farmer's **IMPROVED PROFITS**: the better quality of the milk increasing the produce of butter. It helps to prevent milk shrinking in winter, and so tends to **PAY WELL IN EVERY WAY.**

THE EXTRA PROFIT SECURED by its use can be judged by the following report (one of many favourable ones).

Remarkable Extra Milk Yields!

Mr. JAMES DEAN, OF COLDHOME, KEITH, tested HEWTHORN'S COW THRIVING MIXTURE on three Cows for 44 days, carefully measuring their milk yield morning and night daily, with the following results:—

FIRST COW.—Daily yield before using Hewthorn's Cow Thriving Mixture, 38 Pints. Daily yield after using the Mixture for 44 days, 45 Pints. **TOTAL INCREASE, 320 PINTS.**

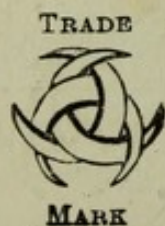
SECOND COW.—Daily yield before using Hewthorn's Cow Thriving Mixture, 23 Pints. Daily yield after using the Mixture for 44 days, 33 Pints. **TOTAL INCREASE, 290 PINTS.**

THIRD COW.—Daily yield before using Hewthorn's Cow Thriving Mixture, 31 Pints. Daily yield after using the Mixture for 44 days, 45 Pints. **TOTAL INCREASE, 377 PINTS.**

These three Cows actually yielded, in 44 days

987 EXTRA PINTS OF MILK

FOR TWELVE SHILLINGS.



One Cwt. (34/-) contains 800 to 1,000 Feeds.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

OTHER REGISTERED INCREASED MILK YIELDS

Mr. W. TAYLOR, Westfield Dairy, Holmer, Hereford, kept a 42 days' Milk Register. Average Yield the day *before* the Test began (and *before* Hewthorn's Cow Thriving Mixture was used) **24 PINTS DAILY**. During the Test, and while Hewthorn's Cow Thriving Mixture *was* used, a steady increase resulted, till at the end of Six weeks the Yield averaged **31 PINTS DAILY**, thus showing **AN INCREASE OF 7 PINTS DAILY PER COW**, The practical result being that during the Six Weeks Mr. TAYLOR got

30 EXTRA GALLONS OF MILK
For **FOUR SHILLINGS**

Per Cow, the cost of Hewthorn's Cow Thriving Mixture consumed.

Mr. JAMES MASLEN, of Northcourt, Abingdon (a well-known Farmer,) kept Milk Yield Registers of 3 Cows for 43 days, ending December 13th, 1900, with results as follows:—

First Cow (Calved May 15th, 1900.) Daily Yield *before* using Hewthorn's Cow Thriving Mixture, 15 pints; Yield on 43rd day of its use, 21½ pints; **Increased Daily Yield, 6½ pints;**
Actual Increased Yield for 43 days, 200 pints.

Second Cow (Calved July 14th, 1900.) Daily Yield *before* using Hewthorn's Cow Thriving Mixture, 17 pints; Yield on 43rd day of its use, 22 pints; **Increased Daily Yield, 5 pints;**
Actual Increased Yield for 43 days, 167 pints.

Third Cow (Calved July, 1900.) Daily Yield *before* using Hewthorn's Cow Thriving Mixture, 14½ pints; Yield on 43rd day of its use, 21 pints; **Increased Daily Yield, 6½ pints;**
Actual Increased Yield for 43 days, 255 pints.

These Three Cows actually yielded during the 6 weeks a clear

623 EXTRA PINTS OF MILK
For **TWELVE SHILLINGS**

worth of Hewthorn's Cow Thriving Mixture, these Increases equal

£10 A YEAR EXTRA PROFIT PER COW !!

SURELY THESE FACTS PROVE IT IS WORTH USING

HEWTHORN'S THRIVING MIXTURES

— FOR —

CATTLE & SHEEP.

.....



Will quicken their growth; put flesh on faster; push them on at a better rate and **SAVE TIME & FOOD** in making them ripe for the butcher. They "grease the wheels," and

INCREASE FEEDER'S PROFITS.

Every shilling spent on them will save fully two in the food required to finish the animals off; while the **quality of the**

meat is improved by being grown more rapidly.

FATTING BEASTS fed with HEWTHORN'S MIXTURE keep eager appetite, bright eyes, and fine soft, loose, bright coat, however heavily they are fed; surfeit and dulness being quite prevented. In heavy feeding without it much food frequently passes through the animal only **half-digested** and is **half-wasted**:—with it, however, every bit is thoroughly assimilated and **turned to the best account**, and a **bigger return in growth** is secured.

Careful trials have proved that Fattening Stock fed with it for three months **put on more weight per month** than others fed on the same ration of food without it, and come out ready for market earlier in consequence. **A saving of over two weeks' feeding** in "finishing off" a beast, has thus been made, and every farmer knows that this represents 20/- to 30/- in cash.

SHEEP fed with it fatten at a quicker rate, and can be pushed on **faster and more profitably**, as they turn their dry food to better account and keep in perfect health and condition.



LAMBS eat more readily with it, and can be forced on with cake and corn more rapidly and with safety; and it is a great safeguard against scour, husk, chills, and other drawbacks. **IN-LAMB EWES** are greatly benefited by it, being kept in more robust, healthy condition. They milk better after they lamb, and are much

more thriving, healthy and vigorous.

N.B.—Special and different Mixtures are prepared for Fattening Sheep and Cattle, and for Ewes, Lambs and Calves, to secure best results with each.

One cwt. (34/-) contains 800 to 1,000 Feeds.

**F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.**





CALF. Born March 4th, 1903. The Property of Hewthorn & Co.'s Customer,
H. JONES, Esq., Maenan, Llanrwst.

Winner of Second Prize, Vale of Conway Show, August 13th, 1903.

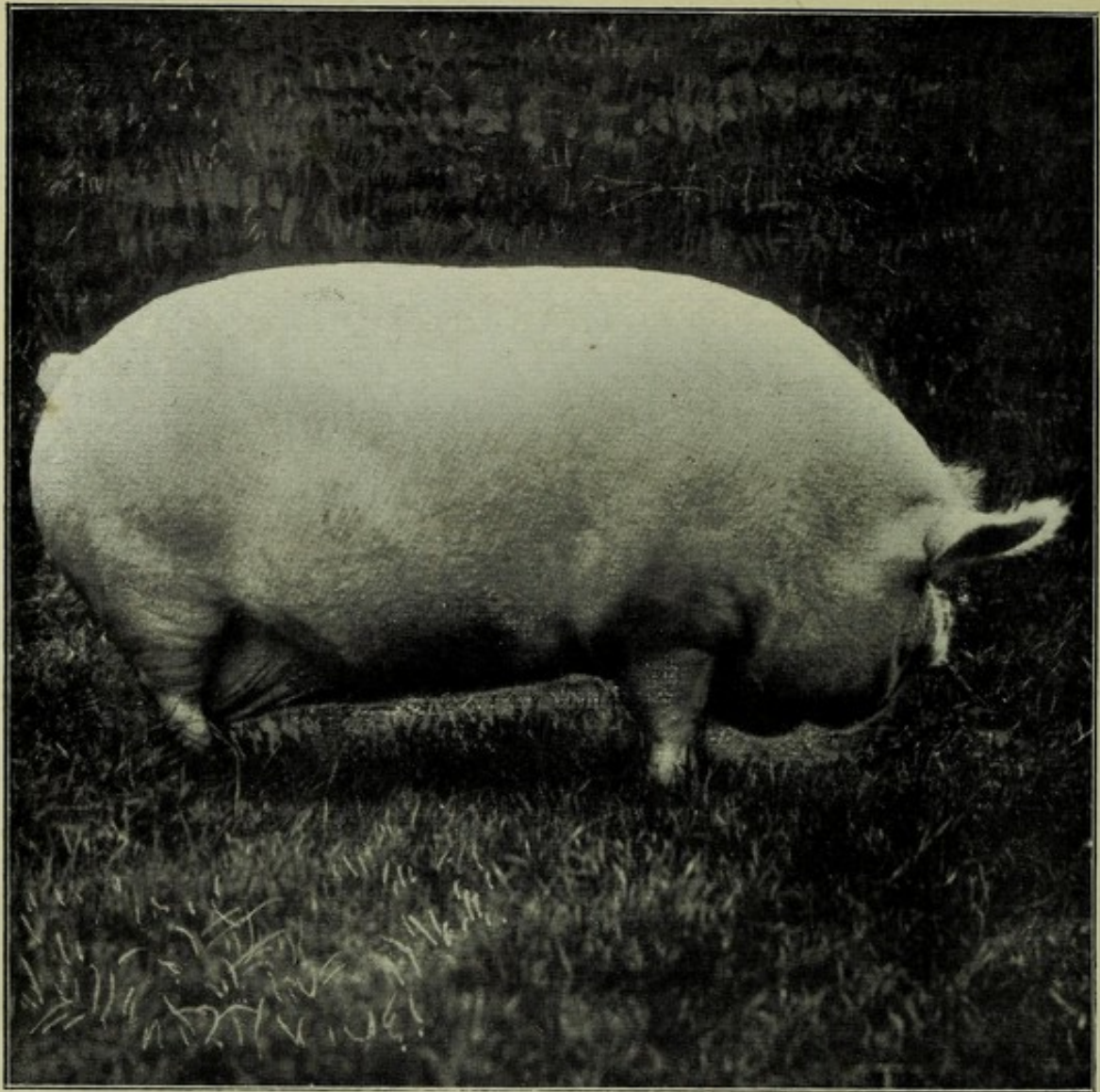
“I have kept a strict account of the eggs I have had this year, and **OUT OF 22 HENS** fed with your **POULTRY MIXTURE** I have had **2,602 EGGS** up till August 31st, and the birds killed have been as fat as I could wish. I would not be without it on any account.”—A. AYLES, 1, Moorfield Road, Portland.

“For **VERY GREAT RELIABILITY AND EXCELLENCE YOUR MEDICINES** are **THE VERY BEST** we ever used; and we would not be without your **GASEOUS BLACK DRINKS** for Gripes, which are **A MOST CERTAIN AND INFALLIBLE REMEDY.**”—TRAIL & AITKEN, Great Western Riding Academy, Aberdeen.

“Your **SCOUR REMEDY** cannot be beaten as an effective **ABSOLUTELY COMPLETE CURE IN ALL CASES.**”—ED. W. WILLIAMS, Lyganlan, Halkyn, Holywell.

“**HEWTHORN'S METAL POLISH, HARNESS COMPO, AND HARNESS OIL** are **FAR THE BEST** we have ever used. **AS PROOFS,** we generally win in Parades and Shows; and our most recent success was at Peterboro' Show, where **WE WON FIRST PRIZE** in strong competition.”—J. WEST, Stable Manager, Co-operative Society, Peterboro'.

“I find the **METAL POLISH** superior to anything I have previously tried, as it gives a **MORE LASTING AND BRILLIANT SURFACE.**”—GEORGE HOLDEN, Smithfield Market and Oldbury, Birmingham.



WHITE SOW, "MIDDLESBORO' II." The Property of Hewthorn & Co.'s
Customer, S. SPENCER, Esq., Holywell Manor, St. Ives.

*Winner of many Gold and Silver Medals, Championships, &c., at the Royal,
Bath, Highland and other Shows.*

"The **CATTLE THRIVING MIXTURE** has **SURPASSED ANY-
THING WE EVER USED.** We selected several lots of cattle and fed
each on different Meal and Spices, but **THOSE FED ON YOUR
MIXTURE CAME OUT BEST.**"—T. C. HONEY, Leigh Barton, Launcells,
Cornwall.

"I have the greatest pleasure in recommending your **GASEOUS
BLACK DRINK.** I had **A MARE** that was **GIVEN UP AS HOPELESS**
by a Vet., and was afraid I should need to have her destroyed. As a
last resource I gave her two of your Gaseous Black Drinks, **AND TO MY
GREAT SURPRISE SHE RECOVERED,** and is to-day as healthy and
well as ever."—W. J. MATHER, Northumberland Horse Repository,
Newcastle-on-Tyne.

"**HEWTHORN'S HEALING JELLY IS BETTER THAN ANYTHING**
I have ever used. **IT ALWAYS CURES** Sores, Wounds, and Cracked
Heels. It is the best curer I have met."—G. WARD, Groom to T. Crisp,
Esq., Eastwood House, March.

"I am very pleased with your **SKIN LOTION.** I used it on a Horse
for the Riff, and **THE SECOND DRESSING COMPLETELY CURED
HIM.**"—J. TOMLIN, Lower Houndsfield, Holly Wood, near Birmingham.

"I find the **MACHINE OIL** a good lubricant, preventing wear, and
somewhat **BETTER THAN OTHER OILS.** It has given me satisfaction
for Threshing Machines, Mowing and Reaping Machines, and other Farm
Machinery."—THOS. NICHOLLS, Parvill's Farm, Epping.

For Fattening Pigs Rapidly

HEWTHORN'S THRIVING MIXTURE FOR PIGS

Quickens Growth and Increases Feeders' Profits.



For making Pigs lay on flesh fast it is unequalled. Its use *pays* Pig Feeders splendidly, keeping the Pigs in fine healthy condition, free from surfeit and disease, and ensuring much quicker growth for all food consumed.

Pigs fed with it show **FASTER GROWTH AND GREATER PROFIT.** They will eat better, put on flesh much more rapidly, and become **FAT IN CONSIDERABLY SHORTER TIME** and on much less food. Its use *pays* with Pigs almost better than anything, and is equally **PROFITABLE TO THE FEEDER** with Pork and Bacon Pigs. (For Young Pigs and Breeding Sows Special Mixtures are prepared, suited to their requirements.)

Price 34/- per cwt., or 21/- per box of 250 packets.

More Profit to Poultry Keepers

HEWTHORN'S THRIVING MIXTURE FOR POULTRY,

Produces More Eggs and Finer Birds.



This Mixture is unequalled as a means of helping Poultry Keepers to increase the produce of, and their profits on, their stock. It keeps the birds in much finer condition, and **makes them thrive and GROW MUCH FASTER**; giving improved stamina, health and strength, and fortifying them against cold and wet weather. **ITS USE SECURES MANY MORE EGGS**; and it is unequalled for **RAPIDLY FATTENING ALL KINDS OF POULTRY** for market.

TRADE



MARK

Price 34/- per cwt., or 21/- per box of 250 packets.

N.B.—One Cwt. equals 2 cwts. of ordinary Condiments or Spices.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.

HEWTHORN'S

"FLAVORA"

FODDER SPICE

For Improving all Fodder for all Animals.

.....

If mixed with any kind of Provender before feeding, it very Greatly Increases its Digestibility and Feeding Value; gives

SPLENDID FRAGRANT SMELL,

AND

GREATLY IMPROVED FLAVOUR,

and makes all animals relish it more, and thrive on it much better.



STRAW CHAFF is

GREATLY IMPROVED

and INCREASED IN

FEEDING VALUE

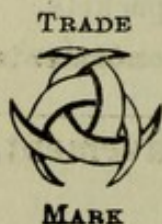
by proper dressing with

HEWTHORN'S FODDER SPICE.

It is softened, flavoured, and made much more nutritious.—And with 'Spiced' straw chaff, less than

HALF THE QUANTITY OF ROOTS
are required to feed stock with equally good results!

It Sweetens All Rough Provender,
Enables the coarsest stuff to be consumed economically,
PREVENTS WASTE and PAYS FARMERS WELL.



DIRECTIONS FOR USE.—Sprinkle 10 to 12 lbs. of Hewthorn's Fodder Spice amongst each Ton of Hay, Straw, or Chaff, mixing also at same time pulped roots, grains, or green stuff sufficient to cause the whole to heat slightly.

For Daily Feeding—Mix about $\frac{1}{4}$ lb. with each animal's feed.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement, LONDON, E.C.



WELSH RAM, "TAFFY." The Property of Hewthorn & Co.'s Customer,
J. JONES, Esq., Voel Cadeirian, Llangerniew.

Winner of 4 First Prizes, Championship, Hewthorn's Special Prize, &c.

Mr. JAMES DEAN, Coldhome, Keith, got **987 EXTRA PINTS OF MILK** in 44 days by using **HEWTHORN'S COW THRIVING MIXTURE**.
(See his certificate.)

"Your **HORSE CONDITIONING POWDERS** are excellent. I **NEVER HAD MY HORSES** come through the Spring work (and it was a very trying season) **IN SO SPLENDID FORM**. They kept fine condition and appetite, and retained plenty of energy to the finish, with economy in their feed."—JAMES LAIDLAY, Balquharn, Portlethen.

"The **THRUSH OINTMENT** for a Horse that had a gathering in the frog; and the **HEALING OINTMENT** for the Colt that tore his side, **COMPLETELY CURED IN BOTH CASES**, which **SAVED ME A LOT** of Veterinary expenses."—OWEN JONES, Bryn Glas Farm, Rhualt, St. Asaph.

"The **PURGING DRENCHES** I find **ARE VERY GOOD**; especially for Cows that have got a chill and started 'grunting.' They **PUT THEM ALL RIGHT IN A VERY SHORT TIME**."—W. H. FORRESTER, Red House Farm, Wolstanton.

"Your **SHEEP DIP** answered very well; have **NOT HAD A CASE OF SCAB OR MAGGOTS** after using it."—W. G. ROBERTS, Dyserth Hall, Rhyl.



ROAN BULL, "FORTUNE'S FASHION." The Property of Hewthorn & Co.'s Customer, Mrs. E. WALSH, Island View, Cootehill, Co. Cavan. Winner of Champion Prize, Phœnix Cup, Queen's Challenge, at Dublin Society's Spring Show, 1903; and of many other Prizes.

"Your **POULTRY THRIVING MIXTURE** I find **VASTLY SUPERIOR** to any other. **IT QUICKLY FATTENS**, and since using it, my dressed poultry in the London Markets have been **PRONOUNCED**. and paid for, **AS CONDITION A1 BY THE SALESMEN**. This is good proof, as I dress about 400 weekly."—**DAVID MORTON**, West End, March.

"**HEWTHORN'S HEALING OIL IS A WONDER.** It heals perfectly without putting a scab on."—**F. GRAVES**, Station Street, Wimblington.

"I have used your **HARNESS COMPO** for the last three years; my Carters say it is the best they ever had. It gives **GOOD, BRIGHT, LASTING POLISH, LITTLE LABOUR** and rubbing, and preserves the leather. At the Liverpool May Day Processions the last three years my Teamsman won the **FIRST PRIZE** for the **CLEANEST AND BEST APPOINTED TEAM AND GEARS**. His gears were always highly polished all the year round."—**THOMAS EDWARDS**, Contractor, Church Street, Bootle.

"Your **METAL POLISH ANSWERS WELL**, both for brass scales and for harness. The brass **HOLDS THE COLOUR MUCH LONGER** than it does with ordinary pastes."—**J. ARTHURTON**, 58, Barrack Street, St. James', Norwich.

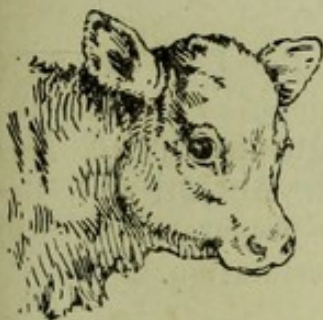
"Your **GREASE DRESSING** answered thoroughly well, and it **WAS A COMPLETE CURE** after other things failed."—**WM. G. POULSOM**, D'Aubney's Farm, Colerne.

HEWTHORN'S

Superior, Improved

MILK SUBSTITUTE.

A Specially Nourishing Food for very Young Calves.

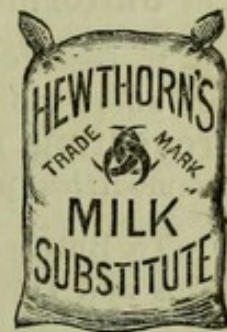


Hewthorn's Milk Substitute is made of the most nutritious and digestible ingredients, is cooked and specially treated, and is particularly suitable for young Calves. It **CAN BE GIVEN FROM A FEW DAYS OLD**, and will nourish the Calf well, and produce **RAPID GROWTH, AND FINE HEALTHY CONDITION & SAVE MILK ENORMOUSLY.**

All farmers who have tried it pronounce it **FAR AHEAD OF OTHER FOODS**, not only for keeping the Calves growing fast, and **FREE FROM SCOURING**, but for **REAL ECONOMY** in every respect.

It is **ESSENTIALLY A FIRST-CLASS FOOD** (not an ordinary Calf Meal), and its high quality, extreme digestibility, and special preparation in manufacture secure to users of it complete success in rearing far exceeding that of any other preparation.

ONE CWT. WILL SAVE 120 GALLONS OF MILK, and rear two Calves up to 12 weeks old. It does not require boiling, and each pint makes a gallon of fine jelly, of **tempting attractive flavour**, and rich in flesh, fat and bone-making constituents. Price **24/-** per cwt.



For Older Calves an excellent food will be found in **HEWTHORN'S CALF MEAL**. It is equal to much higher priced meals in every way; and it carries the Calves on well and at small expense.

TRADE



MARK

Carriage paid on all Orders of 20/- and upwards.

**F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.**

HEWTHORN'S FOOD PRESERVATIVES.

They are the Best and Most Reliable Preventives of Loss and Waste, and the Most Effectual Preservatives against Taint, Sourness, Ferment and Decay in all Kinds of Food, Liquid and Solid.

NOTHING NEED "GO BAD" WHERE THEY ARE USED.

HEWTHORN'S FOOD PRESERVATIVES are the Best and Surest Antiseptics, Germ Destroyers and Hygienic Preventives of Decay in Foods ever offered. They are **Quicker and More Thorough, Lasting, and Unfailing** in their Action and effect, and **More Economical** to use than any other preparations; while they will keep for an unlimited time without deterioration.

They are easily used, either dry or liquid; dissolve quickly and completely; and "go further" than any other article. They are pure and harmless, have no flavour or smell, and do not change the nature of any food they are used for; and being prepared scientifically by Experts are **Always Thoroughly Reliable, Highly Effective, and Uniformly Good** in quality.

In these days of cutting and keen competition no business man can afford to neglect so cheap and sure a means as they are of **Preventing all Loss and Waste**, and of keeping all perishable commodities perfectly saleable and good both in condition and colour.

To Butchers, Poulterers, Fishmongers, Dairies, Hotels, Restaurants, Ships and Households they are alike Indispensable and Invaluable.

MEAT PRESERVATIVE, 14 lb. tins, 10/-; 28 lb. tins, 18/6;
or in 1 cwt. casks, 65/- per cwt.

CREAM PRESERVATIVE, 14 lb. tins, 11/-; 28 lb. tins, 20/-;
or in 1 cwt. casks, 72/- per cwt.

TRADE



MARK

Carriage Paid on Orders of 20/- worth and upwards.

SOLE MANUFACTURERS:-

F. HEWTHORN & Co., 70, Finsbury Pavement,
LONDON, E.C.

HEWTHORN'S DISINFECTING FLUID.

Most effective, powerful and economical known—destroys all Germs. Thoroughly purifies and disinfects. Unrivalled for keeping Stables, Sheds and Drains, &c. sweet and healthy.

Prices 40-gall. Casks 3/-; 10-gall. Drums, 3/6; Smalls, 4/- per gall.

HEWTHORN'S SHEEP DIP.



A thoroughly effective, most economical **Non-poisonous Dip**. Perfectly safe in use—destroys Ticks, Lice, Maggots and all parasites; and gives Softness, Lustre, and Fine Silky Texture to the Wool.

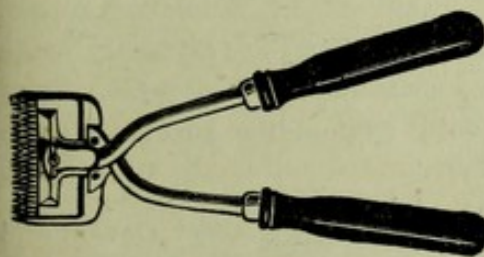
CHEAP & RELIABLE.

Will prevent the Fly striking, and acts as a remedy for Scab, Mange, Ringworm, &c.

ONE GALLON DIPS 100 SHEEP.

40-gall. Barrels, 3/-; 10-gall. Drums, 3/6; smaller quantities, 4/- gall.

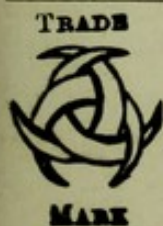
Hewthorn's "Finsbury" Horse Clippers.



These machines have no superior for quick, clean, close clipping; and are at the same time the perfection of **Simplicity and Easy Working**. Marvellously easy to work, have only one adjustment, and wear for years.

Keep their edge splendidly. Once used, always used.

Price per Pair. Best quality, ordinary cut, 6/6; ditto, fine cut, 8/6; ditto, Grasshopper springs, 10/-; Topping and Legging clippers, 12/6.



All Packages Free. Carriage paid on orders of 20/- value.

**F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.**

XLVII.

HEWTHORN'S "KILL-RAT."

THE SUREST VERMIN KILLER KNOWN.

CLEARs OUT RATS & MICE AT ONCE.



This preparation is unrivalled for quickly and thoroughly exterminating Rats and Mice. It is very tempting, and they devour it greedily, and are got rid of entirely in a few days after it has been put down. It is always ready for use, is very cheap, will keep good for years, and only needs dropping near the haunts and runs of the vermin.

DEADLY IN EFFECT; EASY TO USE.

No previous baiting required, nor any trouble whatever. For Farmers and Stable Owners it is the easiest and most economical preparation possible for keeping the premises clear of all vermin.

Prices, in large tins, 2/6, 5/-, 10/-, and 20/- each.

HEWTHORN'S VARNISHES Combine the perfection of easy flowing, thorough covering, and hardest wearing properties, with **great economy in cost and working**. Give splendid smoothness, brilliancy and finish. Prices—Best **Carriage**, 18/- per gall.; Best **Body**, 26/- per gall.; Best **Waggon**, 13/- per gall.; Best **Black** for out-door wood and iron work, (a) 1/4, (b) 1/9, (c) 1/11 per gall.; Extra Quality **Black**, (a) 1/6, (b) 1/11, (c) 2/2 per gall.

(a) 40 gallon casks, (b) 10 gallon drums, (c) smaller quantities.

HEWTHORN'S BEST MIXED PAINTS. They are expressly made to **stand and wear well** and will outlast two coats of common paint. They are quite water-proof; and give a splendid smooth enamel-like surface. Price 44/- per cwt. In 14-lb. and 28-lb. tins, any colour.

HEWTHORN'S BEST BLACK CARRIAGE JAPAN. Covers and flows perfectly; gives a hard lustrous brilliant surface, and has remarkable lasting and wearing qualities. Price 18/- per gallon.

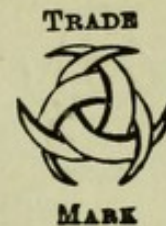
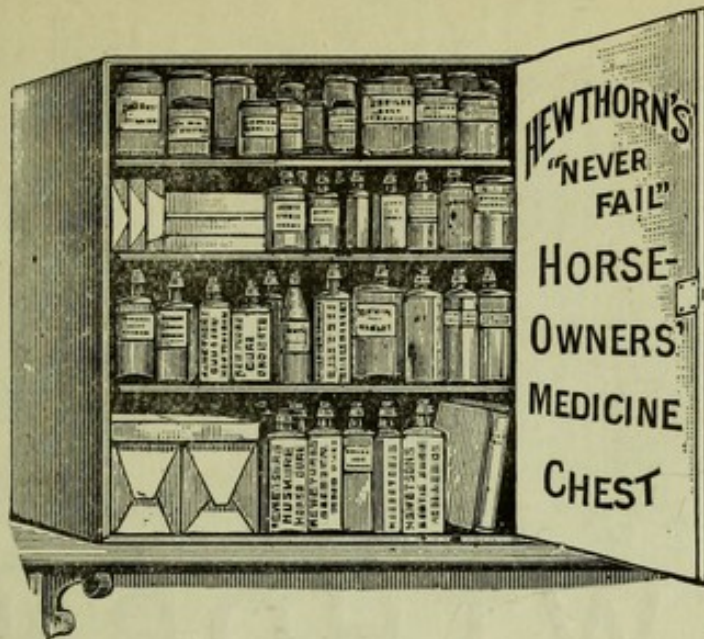
HEWTHORN'S GOLD SIZE. Extra Quality. Superior in every respect to cheaper articles. Price 14/- per gallon.

All Packages Free. Carriage paid on orders of 20/- value.

**F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.**

XLVIII.





HEWTHORN'S HORSEKEEPER'S "NEVER FAIL" MEDICINE CHESTS

Contain the most Valuable Remedies known.

£1 5s., £2 10s., and £5 each, and upwards.

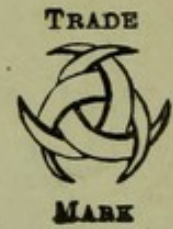
Provided with these Chests the horsekeeper can effectively and promptly deal with all diseases as they arise, and save himself endless trouble, expense and loss.

THE £5 POLISHED LOCK-UP CHEST CONTAINS:—

1 doz. Gaseous Black Drinks. .. 19/6 For Colic, Spasm, Debility, &c.	1 doz. Purging Balls 5/0 5/0 For Costiveness, Stoppage, &c.
6 bots. Antifebrile Stimulant. 1/8 10/0 For curing Influenza, Fever, Chills, Shivering, &c.	½ doz. Swollen Leg Balls .. 5/0 2/6 For Swollen Legs, Hardening, &c.
4 bots. Cough Drinks 1/6 6/0 Marvellous remedy for Coughs.	½ doz. each Alterative, Worm, Diuretic, Cough, and Grease Balls 5/0 12/6
2 bots. Cough Linctus .. 1/6 3/0 For Cough, with swollen throat.	1 tin Healing Jelly — 2/6 For healing, Sores, Wounds, &c.
2 bots. Sedative Extract .. 3/0 6/0 For Soothing all Pains.	1 jar Blistering Ointment .. 1/9 1/9 Very efficacious. No blemishes.
3 bots. Cordial Drinks .. 1/6 4/6 For quickly invigorating.	1 jar Thrush Ointment .. 2/3 2/3 For Thrush, Loo, &c.
1 bot. Cooling Lotion 1/9 1/9 For reducing Inflammation, &c.	3 pkgs. Grease Dressing .. 1/9 5/3 A most Reliable Remedy.
1 bot. Curb Lotion 3/6 3/6 For Curb, Splint, Spavin, &c.	1 tin Hoof Dressing 3/6 3/6 For all Hoof Diseases.
3 bots. Matchless Embroca- tion 1/9 5/3 For Hurts, Sprains, &c.	1 bot. Styptic Dressing .. 2/6 2/6 For quickly stopping Bleeding.
2 bots. Black Healing Oils .. 2/0 4/0 For Wounds, Cuts, Sores.	With free copy of Hewthorn's Veterinary Guide. £5 4 9
1 bot. Absorbent Liniment — 3/6 For swollen Glands, Lumps, &c.	

The 50/- and 25/- Chests contain proportionate assortments;
or Special Chests can be made up to buyers' requirements.

F. Hewthorn & Co., Ltd., 70, Finsbury Pavement, London, E.C.



HEWTHORN'S

CATTLE BREEDER'S "NEVER FAIL."

MEDICINE CHESTS

£1 5s., £2 10s., and £5 each.

The prompt use of the remedies contained in this cabinet ensures and maintains perfect health and condition in all animals.

THE £5 CHEST CONTAINS:—

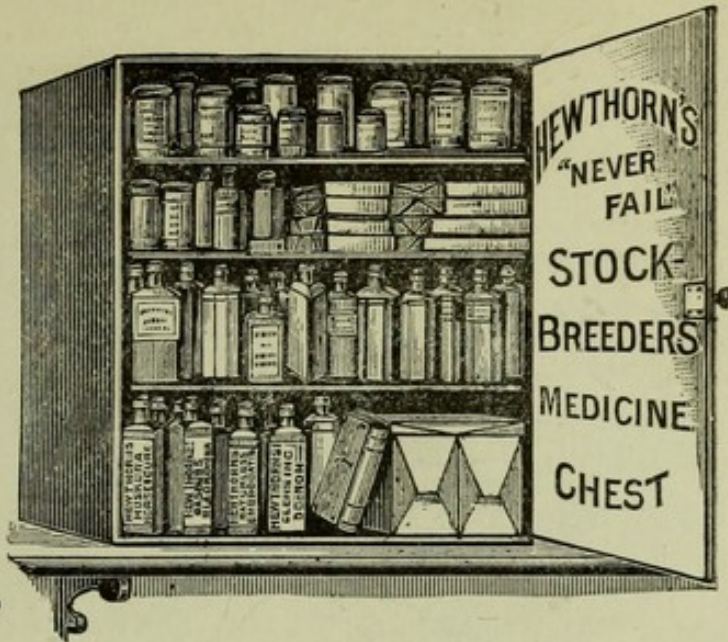
1½ doz. Gaseous Black Drinks 29/0 For Gripes, Colic, Hoven, &c.	1 bot. Absorbent Liniment .. 3/6 For Garget, & Reducing Swellings
1 doz. Cleansing Drenches .. 11/6 For rapid, safe cleansing.	1 bot. Black Healing Oil .. 2/0 For Cuts, Wounds, &c.
1 doz. Purging Drenches .. 11/6 For curing Stoppage, &c.	2 bots. Matchless Embrocation 3/6 For Strains, Sprains, Bruises, &c.
1 doz. Cordial Drenches .. 11/6 For Weakness, Chill, &c.	2 bots. Cough Linetus .. 3/ For Swollen Throat & Cough.
¼ doz. Antifebrile Stimulant 5/0 For Influenza, Shivering, Fever.	¼ doz. " Huskura ," .. 6/0 For Hoose, Husk, Host, &c.
1 bot. Sedative Extract .. 3/0 For Soothing Severe Pain.	1 bot. Foot Rot Lotion .. 2/0 For Foul and Loo.
2 tins Scouring Remedy .. 3/0 For Diarrhœa, Dysentery, &c.	1 bot. Detergent Lotion .. 2/6 For Whites, &c.
1 tin Healing Jelly .. 2/6 For Sore Teats, Grazes, &c.	
2 jars Soothing Ointment .. 6/0 For Garget, Swollen Udders, &c.	<u>£5 5 6</u>

In polished lock-up cupboard-chest, with free copy of Hewthorn's Veterinary Guide.

The 50/- and 25/- Chests contain proportionate assortments;
or Special Chests can be made up to buyers' requirements.

F. Hewthorn & Co., Ltd., 70, Finsbury Pavement, London, E.C.

HEWTHORN'S
"NEVER FAIL"
HORSE and
CATTLE
MEDICINE
CHEST.



A Reliable Remedy for every Ailment.
£1 5s., £2 10s., & £5 each, & upwards.

With this Chest in his possession the Stock-breeder can promptly cope with all the ordinary ailments of animals, easily, effectually, cheaply and thoroughly.

Fullest directions for use are on every package.

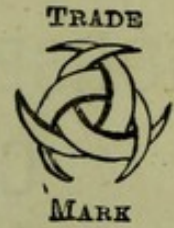
THE £5 CHEST CONTAINS:—

1 doz. Gaseous Black Drink .. 19/6	For Colic, Hoven, Debility, &c.	½ doz. Worm Balls 5/0 2/6	For curing Worms in Horses.
4 bots. Cough Drink 1/6 6/0	Marvellous for Coughs.	½ doz. Cough Balls 5/0 2/6	For Coughs & Colds in Horses.
1 bot. Cough Linctus — 1/6	For Swollen Throat & Cough.	½ doz. Swollen Leg Balls .. 5/0 2/6	For reducing Swelled Legs.
2 bots. Sedative Extract .. 3/0 6/0	For soothing pain of all kinds.	2 bots. Black Healing Oils .. 2/0 4/0	For curing Wounds, Sores, &c.
3 bots. Antifebrile Stimulant . 1/8 5/0	For Chills, Shivering, Fever, &c.	2 bots. Matchless Embroca-	tion. For Bruises, Strains, &c. 1/9 3/6
2 bots. Huskura 2/0 4/0	For Hoose, Husk, Worms, &c.	1 bot. Cooling Lotion 1/9 1/9	For reducing Inflammation.
1 bot. Red Water Specific .. 2/0 2/0	For Cattle and Sheep.	1 tin Healing Jelly — 2/6	
1 doz. Cleansing Drench .. 11/6 11/6	For Calving and Lambing.	1 bot. Absorbent Liniment .. — 3/6	For Swollen Glands, Lumps, &c.
¼ doz. Purging Drenches .. 11/6 2/10	For curing Stoppage, &c.	1 bot. Styptic Dressing .. 2/6 2/6	For quickly stopping Bleeding.
¼ doz. Cordial Drenches .. 11/6 2/10	For Weakness, Chill, &c.	1 jar Soothing Ointment .. 3/0 3/0	For Swollen Udders, Glands, &c.
1½ doz. Conditioning Powders 2/0 3/0	For improving Coat & Health.	1 jar Blister Ointment .. 1/9 1/9	For Spavins, Splints, &c.
1½ doz. Purifying Blood Salt 2/0 3/0	For Cooling the System.	1 jar Thrush Ointment .. 2/3 2/3	For Thrush, Loo, Foot Rot, &c.
1 tin Scouring Remedy .. 1/6 1/6	For Diarrhoea, Dysentery, &c.	1 jar Skin Ointment 2/0 2/0	For Mange, Ringworm, &c.
½ doz. Purging Balls 5/0 2/6	For Constipation in Horses.		
			<u>£5 5 5</u>

In polished lock-up cupboard-chest, with free copy of Hewthorn's Veterinary Guide.

The 50/-, and 25/- Chests contain proportionate assortments; or Special Chests can be made up to buyer's requirements.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement, LONDON, E.C.



HEWTHORN'S LAMBING & CALVING "NEVER FAIL" MEDICINE CHESTS.

REMEDIES FOR EVERY EMERGENCY.

£1 5s., £2 10s., and £5 each, and upwards.

The owner of one of these chests is relieved of half the worry and risks of the Lambing and Calving Season.

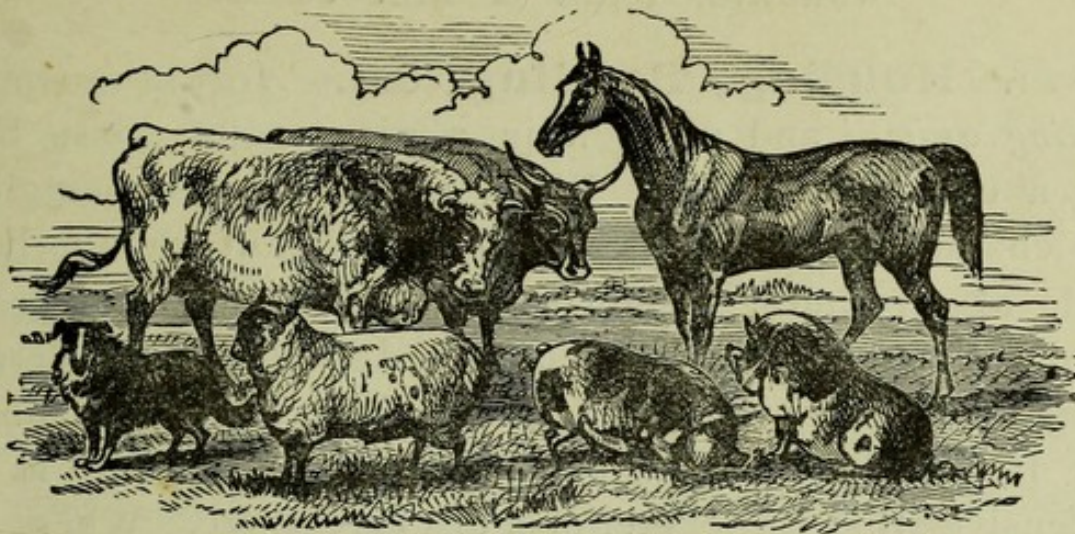
THE £5 CHEST CONTAINS:—

1 doz. Gaseous Black Drink 19/6	For Colic, Hoven, Scour, &c.	1 bot. Healing Oils 2/0	For Cuts, Wounds, &c.
3 bots. Antifebrile Stimulant 1/8 5/0	For Milk Fever, Colds, &c.	2 bots. Matchless Embroca-	tion for Hurts, Sprains, &c. 1/9 3/6
3 bots. Cordial Drink 1/6 4/6	For reviving exhausted animals.	1 bot. Styptic Dressing 2/6	For stopping "Flooding,"
1 bot. Sedative Extract 3/0	The unfailing Painsoother.	Bleeding, &c.	
1 bot. Huskura 2/0	For Hoose, Husk, Worms, &c.	1 bot. Detergent Lotion 2/6	For curing "Whites," &c.
2 doz. Cleansing Drench 23/0	Induces rapid Cleansing.	1 bot. Absorbent Liniment 3/6	For Garget & Swollen Glands, &c.
1 doz. Cordial Drench 11/6	Soothing and invigorating.	1 bot. Sore & Wound Lotion 1/6	For curing Sores, Wounds, &c.
1 doz. Purging Drench 11/6	For Stoppage, Costiveness, &c.	1 jar Soothing Ointment 3/0	For Garget, Swollen, Udders, &c.
1 tin Scouring Remedy 1/6	For Diarrhoea, Gurr, Skit, &c.	1 tin Healing Jelly 2/6	For Sore Teats, Anointing, &c.
2 bots. Lambing & Calving	Oils for Ewes and Cows .. 2/0 4/0		
			£5 6 6

In polished lock-up cupboard-chest, with free copy of Hewthorn's Veterinary Guide.

The 50/- and 25/- Chests contain proportionate assortments; or Special Chests can be made up to buyers' requirements.

F. HEWTHORN & Co., Ltd., 70, Finsbury Pavement,
LONDON, E.C.



HEWTHORN'S VETERINARY GUIDE.

INTRODUCTORY CHAPTERS.

CHAPTER I.

ON THE NURSING, CARE & DIET OF SICK ANIMALS.

*Housing, Bedding, &c.—Disinfection—Rest and Sleep—
Cleansing and Dressing—Clothing, Bandages and
Bandaging—Slings and Cradles—Food and Drink—
Special Invalid Diets, &c.—Weights and Measures.*

Ailing domestic animals, like ailing human beings, require careful nursing; and in fact upon the care taken of the patient greatly depends whether a successful cure is effected or not. It is most important, therefore besides using proper remedies, to act on the following advice.

NURSING, CARE & DIET—*continued.*

1. **Housing, Bedding, &c.**—*Always isolate an ailing animal* and place it in a nice roomy loose box, or a comfortable pen. When the disease is contagious in character *isolation is imperative*; but it should be a rule at all times. The place ought to be quiet, the ventilation and drainage good, and the light moderate. The floor should be well littered with straw, which should be frequently changed, so that it never becomes at all offensive from the excretions, discharges, &c. Where the ventilation is by a chimney or a shaft descending from the roof, there is danger, especially at night, of a downward current of cold air striking the animal and chilling it seriously. Louvre windows are to be preferred; or, better still, a shaft having its opening within two feet of the floor, and having a revolving ventilator at the top.

2. **Disinfection.**—This is most important and *should never be neglected.* The walls should be frequently whitewashed, and all offensive matter discharges, &c., deodorised by dissolving a handful of Copperas in a pail of water, and therewith flushing the brick floors, traps, and drains. Where the case is a contagious one, the place must be fumigated also, and the attendant on the sick animal should not go near other animals until he himself has been thoroughly disinfected. Sulphur, combined with wood tar, should be burnt in the stable or shed 2 or 3 times weekly, as it is a most active atmospheric disinfectant. A pint of tar and $\frac{1}{4}$ -lb. of sulphur (mixed) and the mixture fired in two places, say 20 feet apart, will disinfect a shed 30 feet square. "**Hewthorn's Liquid Disinfectant**" is also useful, brushed over the front of the manger, the walls, and doors, the hoofs may also be smeared with it. Rugs or

NURSING, CARE & DIET—*continued.*

blankets wrung out of weak solution of it, and hung up in the stables, both keep off flies and also destroy disease germs in the atmosphere. The best disinfectant for floors, traps, drains, &c., is "**Hewthorn's Powder Disinfectant.**" Chloride of Lime may be sprinkled about, but is not so good as the above.

3. **Rest and Sleep.**—These are *all important.* Horses especially are nervous animals, and should be kept perfectly quiet and away from all noise, or they cannot sleep. Visitors to the patient should not be allowed, only the attendants. The diseased part particularly, must be rested in all ways possible; that is to say, should the digestive organs be affected, give only the simplest and most easily digested food, and avoid purgatives. If the eye or the foot is affected, shading from the light is required in the first, and entire freedom from motion in the second case;—and so on.



4. **Cleansing and Dressing.**—Sick animals ought always to be kept clean. This, in many cases, is difficult; especially with cows, calves, &c., should they be suffering from dysentery. They must be well bedded, however, and sufficient force used *to get them washed and kept clean.* When the patient is feverish, tepid water and vinegar may be sponged over the body to relieve the dryness of the skin. In grooming and drying do not use a curry comb or harsh rubbing, but use warm water, a hand

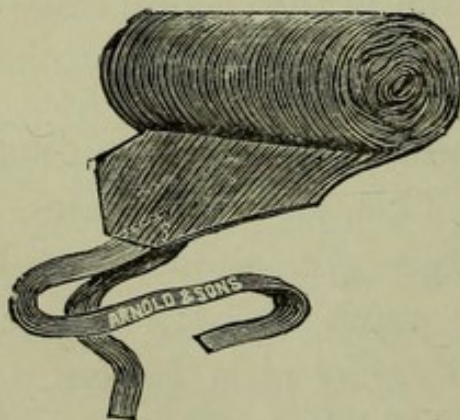
NURSING, CARE & DIET—*continued.*

brush and cloth. Handle the animals gently, and rub as lightly as will ensure getting them dry,

5. **Clothing.**—Clothe the animal comfortably with rugs, hood, &c., and bandage the limbs. In doing so, however, take care to avoid undue or unequal pressure, but yet wrap them sufficiently closely to give good support and warmth. Woollen bandages are the best. Both bandages and clothing ought to be removed twice daily, the body well rubbed down, and then re-clothed. Frequently it is a part of good nursing to clip the patient.

Bandages and Bandaging.—Having procured a length of suitable material—woollen, if possible—the size and shape of the bandage must first be considered. This will depend entirely on the part to which it is to be applied—but for the limbs a width of four to five inches is most convenient, the length being adjusted as required.

Tapes should be strongly sewn to the terminal end of the bandage, which is then rolled upon itself, so that,



when rolled, the tapes are in the middle of the roll and at the most convenient spot for securely fastening off when the bandage has been put on. Skill in bandaging can only be secured by practice, but the points to be aimed at are equality of

pressure and firmness. Care should be exercised—if a liquid medicament is being used—to saturate the bandage *before* application. The shrinkage of the material will then

NURSING, CARE & DIET—continued.

take place before it is put on and no danger can result from over tightening afterwards.

The matter of bandages is also very fully treated of in the Tenth Section of this book, further on.

6. **Slings and Cradles.**—A sick horse frequently refuses to lie down; and, consequently, gets exhausted much more rapidly than he otherwise would do. In such a case he must be promptly put in slings. No stable should be without them, in fact.

Cradles are also an essential stable requisite, being most useful in cases of fractures, such as those of the jaw, &c.

7. **Food and Drink.**—These must be given in small quantities and frequently. The food should be in the form of mashes, scalded oats, carrots, gruels, and other soft foods, easily digested and assimilated. Milk and eggs should also be frequently given where special nourishment is required. (See detailed List of Invalid Diets at end of this paragraph.) Food should never be allowed to remain long before the animal. If it is not promptly taken, remove it; and try again with fresh food in two hours. When recovering, a patient is frequently inclined to eat too much; this must therefore be guarded against by giving only small feeds. A measure full of "**Hewthorn's Special Thriving Mixture,**" should be given in the feed morning and evening to ensure digestion and promote the healthy action of all the functions. A supply of *fresh* water should always be in front of the patient; it must be cool, clear, soft water. Oatmeal or a little nitre may be used in it, but not if distasteful. Rock salt should be kept in the manger.

NURSING, CARE & DIET—*continued.*

8. **Special Invalid Diets, Mashs, Gruels, &c.**—These may consist of Linseed, Linseed Tea, Oatmeal, Ground Corn, Barley and Bran Mashs, Fresh Eggs and Milk, &c., &c.

No. 1.—*Linseed Tea.*

Bruised Linseed, 4 to 6 oz
Boiling water, 1 gal.

Simmer for two hours, strain and add a few spoonfuls of treacle or honey.

No. 2.—*Linseed Mash.*

Linseed, 2 qts.
Sugar, 2 oz.
Boiling water, 6 qts.

Simmer for several hours on a slow fire.

No. 3.—*Barley Water.*

Barley, 1 lb.
Water, 2 gal.

Boil to 6 qts., strain, and add a teacupful of treacle.

No. 4.—*Malt Mash.*

Ground Malt, 1 peck.
Boiling water, 1½ gal.

Stir frequently, and give when milk warm. This is a nutritious mash, valuable in debility.

No. 5.—*Bran Mash.*

Bran, ½ peck.
Boiling water, enough to scald it all.

Stir and give when milk warm.

No. 6.—*Oatmeal Gruel.*

Oatmeal, ½ pint.
Water, ½ pint.

Mix well together, then add to one gallon of boiling water and boil for a few minutes.

No. 7.—*Eggs and Milk.*

Fresh Eggs, 4.
Fresh Milk, 2 qts.

Beat together and give milk warm. A concentrated form of nourishment for exhausted animals.

NURSING, CARE & DIET—*continued.***Weights and Measures.**

Apothecaries' weight and wine measure are those used in veterinary practice.

APOTHECARIES' WEIGHT.

60 grains	=	1 drachm.
8 drachms	=	1 ounce.
16 ounces	=	1 pound.

WINE MEASURE.

60 drops	=	1 drachm.
8 drachms	=	1 ounce.
16 ounces	=	1 pint.
8 pints	=	1 gallon.

For nearly all practical purposes, quantities of fluids may be measured in familiar domestic utensils to correspond to the above table, as follows :

60 drops	=	1 teaspoonful	=	1 drachm.
4 teaspoonfuls	=	1 tablespoonful	=	$\frac{1}{2}$ ounce.
2 tablespoonfuls			=	1 ounce.
1 wineglassful			=	2 ounces,
1 teacupful			=	4 ounces.
1 tumblerful			=	$\frac{1}{2}$ pint.

CHAPTER II.

ON VARIOUS METHODS OF ADMINISTERING MEDICINES.

These may be divided firstly into "Internal Methods" and "External Methods,"—as follows:—

INTERNAL METHODS are:—1. By the mouth or nostrils; the medicines being in the form of **BALLS** or **BOLUSES**; **POWDERS**; **DRENCHES**; **DRAUGHTS** or **DRINKS**; **VAPOURS**, **SPRAYS** and **FUMES**; or **SNUFFS**.

2. By the rectum or the vagina, in the form of **ENEMAS**; **INJECTIONS**; or **SUPPOSITORIES**; and

3. By the bloodvessels, in the form of **SUBCUTANEOUS** or **HYPODERMIC INJECTIONS** or **INJECTIONS INTO VEINS**.

EXTERNAL METHODS.—In all these the remedy is applied to the skin in the form of **LOTIONS** or **LINIMENTS**; **POULTICES** or **FUMENTATIONS**; **OINTMENTS**, **PLASTERS**, **CHARGES**, &c.

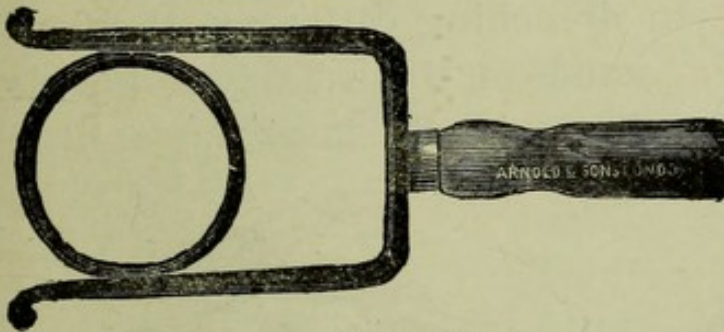
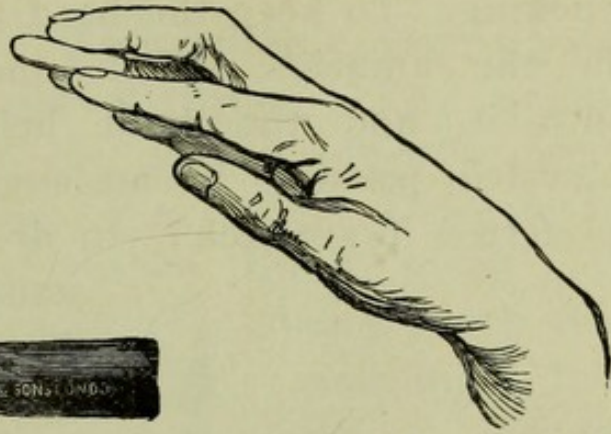
INTERNAL METHODS.

MEDICINES GIVEN BY THE MOUTH AND NOSTRILS.

A **Ball** or **Bolus** is made by mixing the ingredients to be given into a thick paste with molasses, linseed meal, or soap, which we then place in one of our gelantine capsules. The ball may be given by the hand; which is done by holding the end of the ball between

METHODS OF ADMINISTERING MEDICINES—*continued.*

the first, second and third fingers of the right hand; gently drawing the horse's tongue forward with the left hand, passing the ball along the roof of the mouth and dropping it on the base of the tongue;



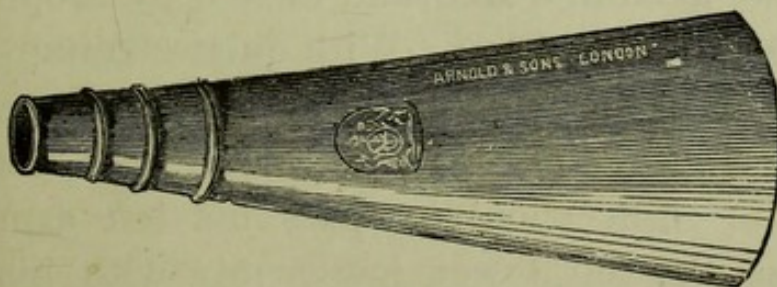
Balling Iron.

quickly withdrawing the hand; releasing

the tongue; closing the jaws, and holding the head slightly elevated until the bolus is observed to pass down the gullet. A *Balling Iron* may be used if preferred (see Illustration.)

Powders.—May be given mixed in bran mashes, linseed tea, or other suitable food.

Drenches, Draughts, or Drinks.—Many varieties of medicines are given in these forms, always mixed with linseed tea, oatmeal gruel, water, &c., half-a-pint to a pint for a horse, and a quart for a cow or ox being about the quantity of fluid given at a dose. In drenching a



Drenching Bottle.

horse the head ought to be moderately raised. The neck of the bottle or horn placed in the side of the mouth, and the

METHODS OF ADMINISTERING MEDICINES—*continued.*

fluid allowed gradually to flow from the bottle; should the animal cough the head must be at once lowered to prevent choking. To keep the head up, a noose may be placed in the animal's mouth and a stable fork inserted into it, and the head held by this means in an elevated position by an assistant. A pulley is to be preferred if available. In drenching cattle an attendant stands on the left side and holds the animal's head in a little



*Apparatus for Drenching
a Horse.*

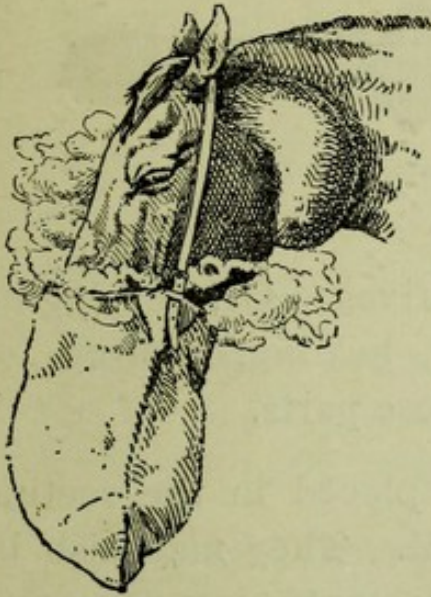


*Method of opening Cow's lips to
administer a Drench.*

above a horizontal position by the horns, and the operator pours the medicine slowly between the lips on the right side, pulling the lips at the back so as to form a pouch in the cheek to facilitate this. The head must be lowered at once if the animal coughs. With large animals it may be necessary to secure the head in a stall, and raise it by a rope over a beam to the required position. With quiet medium-sized beasts one man can drench them if he place the animal with its left side against the wall, stand with his back well against its right shoulder, pass his left arm over the neck, seize the left lower jaw firmly with his left hand, turn the head well round his body, holding

METHODS OF ADMINISTERING MEDICINES—*continued.*

it up firmly, and gently pour the medicine into the right side of the cheek pouch.

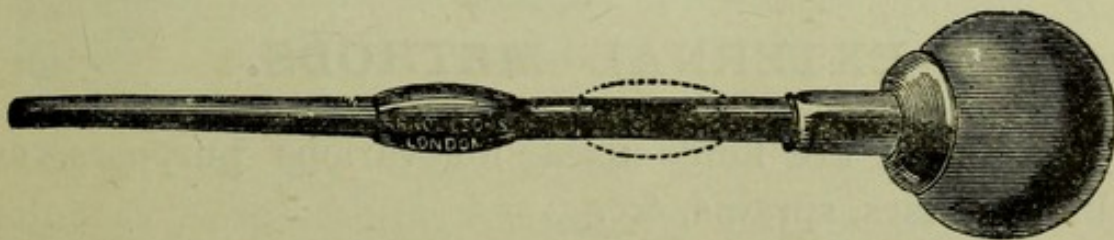


Vapours, Sprays, and Fumes.—These ought to be more frequently used than they are. Chloroform and ether being given by saturating a sponge with the medicament, muzzling the animal and fixing on, simply holding the saturated sponge to the nostrils.

Steaming the Head is also extremely useful in cases of catarrh, sore throat, strangles, &c.; this is done by pouring hot water and a half-a-pint of turpentine on bran, placed in a nose bag (as in illustration) and fixing to the head.

Vapours.—These are easily produced by placing the fluid desired to be vaporized in an "*Atomizer.*" In throat and chest mischief they are extremely useful.

Snuffs are given by using a tube with a rubber ball



at the end. Place the powder in the ball, by pressing which the powder is blown on to the unhealthy part.

METHODS OF ADMINISTERING MEDICINES—*continued.*

MEDICINES GIVEN PER RECTUM OR VAGINA.

Injections.—These are given per rectum, with an enema syringe, in constipation, colic, piles, &c.; and



Enema Syringe.

sometimes take the place of purgatives. Or, per vagina or uterus in cases where soothing, healing, cooling, or other applications are required to those parts.

Suppositories.—These are placed in the rectum in a solid form, like a cone or ball. They may also be placed in the vagina, when disinfectants are necessary after calving, &c.

Hypodermic Injections are given with a small syringe with a hollow needle point. With this a blood-vessel is pierced; and this being done, the piston of the syringe is pushed into the hollow needle point, and the fluid contained in the syringe is thereby expelled into the vein and so into the animal's system.

EXTERNAL METHODS.

Lotions are fluids used for various purposes, as bathing bruises, sprains, &c.

Anodyne or Cooling Lotions relieve heat and pain.

METHODS OF ADMINISTERING MEDICINES—*continued.*

Astringent Lotions are useful where the skin or injured surface is moist.

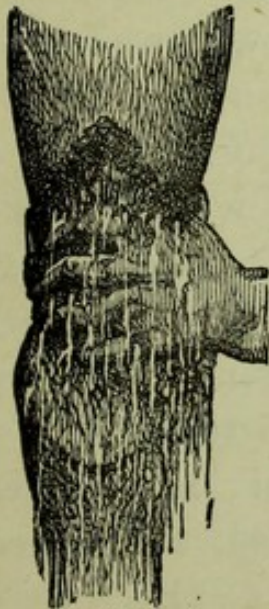
Detergent Lotions are used to cure unhealthy sores, discharges, &c.

Healing Lotions are used to heal open wounds or raw surfaces.

Embrocations and Liniments are used to cure bruises, sprains, and injuries when the skin is unbroken.

Poultices are soft applications made of moistened or scalded meal, crushed seed, bran, &c., either hot or cold, and are used to relax the parts and allay the pain.

Fomentations.—Are simple bathing of the part with hot or cold water (see illustration); or bandaging the part to be treated in flannels, bandages, or other cloths, and keeping them constantly wet with the liquid to be employed. This may be hot or cold water; cooling lotions, or an antiseptic remedy. The bandage should be covered with a piece of oilskin to retain the moisture. After fomenting well, by the first method, the part ought to be rubbed dry, and the animal carefully clothed to prevent chill. Where wounds are being dressed "**Hewthorn's Sanitary Bandages**" must be used, as they are much better than ordinary rags or cloths, as being completely sanitary and disinfecting they *effect a cure in at least half the usual time.* This is a most important consideration to horse owners.



METHODS OF ADMINISTERING MEDICINES—*continued.*

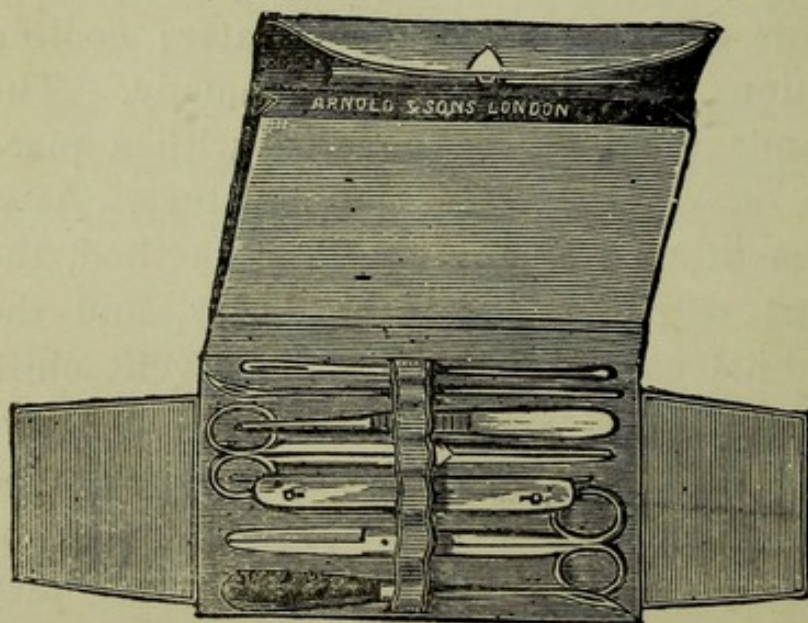
Ointments.—Contain the necessary drugs, in combination with lard, butter, petroleum, ointment or vaseline. They are useful in skin diseases, and are applied with more or less friction, as the case demands.

Plasters.—Are not much used in veterinary practice. They are used in the form of charges, and are applied by melting the plaster, and applying to the skin. Tow or lint must be placed over them and confined by a bandage. They are useful in slow inflammations, more especially of the joints, ligaments, tendons or feet. They may be used with beneficial effects in joint affections of cattle.

CHAPTER III.

MINOR SURGERY, &c.

Although not recommending the stock owner to use veterinary instruments too freely, yet all owners of stock



Pocket Surgical Case.

ought to be possessed of a few instruments for use in case of real emergency. A small pocket case of instruments (as illustrated) is the most useful and it ought to contain the following:

MINOR SURGERY—*continued.*

1 A BLUNT POINTED BISTOURY, slightly curved for opening wounds, cutting under the skin, or enlarging small cavities.

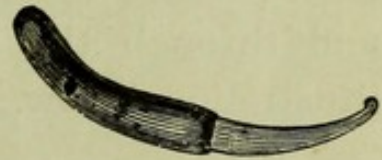
2 A THUMB LANCET. This is superior to the old-fashioned fleam, being safer, as with the lancet the exact depth and length of the cut can better be judged.

3 A PAIR OF FORCEPS, for dressing or removing foreign bodies from wounds, catching arteries for tying, &c.

4 A LONG BLUNT POINTED NEEDLE for probing wounds, inserting small setons, &c.

5 A SILVER PROBE, blunt at one end and sharp at the other, for exploring wounds.

6 A FROG KNIFE for removing loose horn, paring the hoof, &c.



7 A PAIR OF CURVED SCISSORS for trimming wounds, cutting hair, &c.

8 A STRAIGHT BROAD SCALPEL, for opening abscesses, castrating, &c.

9 A SETON NEEDLE, for introducing tapes, &c.

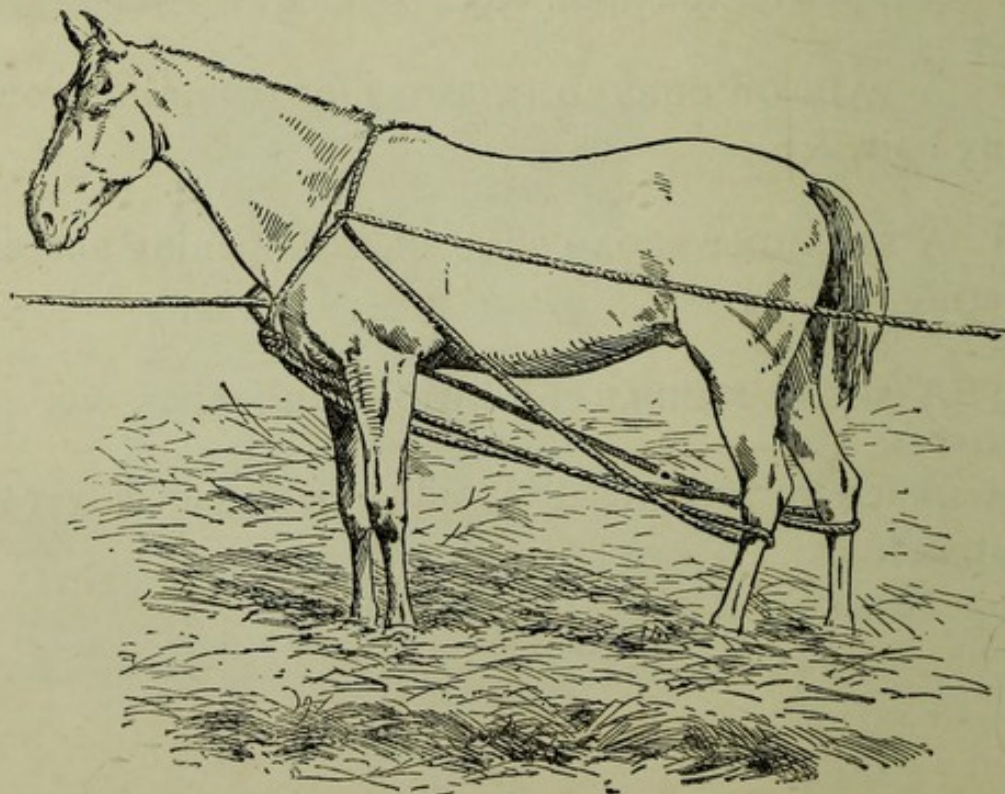
10 A few surgical needles and some thread, silver wire, catgut, &c.

MINOR SURGERY—*continued.***PREPARATIONS FOR OPERATING.**

If an operation is to be performed it is first necessary to secure the animal. This is best done by "Casting," which can be done with a rope, as follows :

Let the horse be stood on, and about a foot from the edge of, a deep bed of straw about 10 ft. square.

Take about 40 ft. of strong half inch rope, and in the middle of it make a *knotted* loop (*not* a "slip" loop, or the animal will be strangled) big enough to go over the head and form a collar. Pass the ends of the rope between the horse's fore legs backwards, and pass one rope end round outside the near hind leg and the other round outside the off hind leg, and bring both ends back between the hind legs, passing them under the rope, outside the shoulders, and through the loop on the neck, as shown in the illustration below.



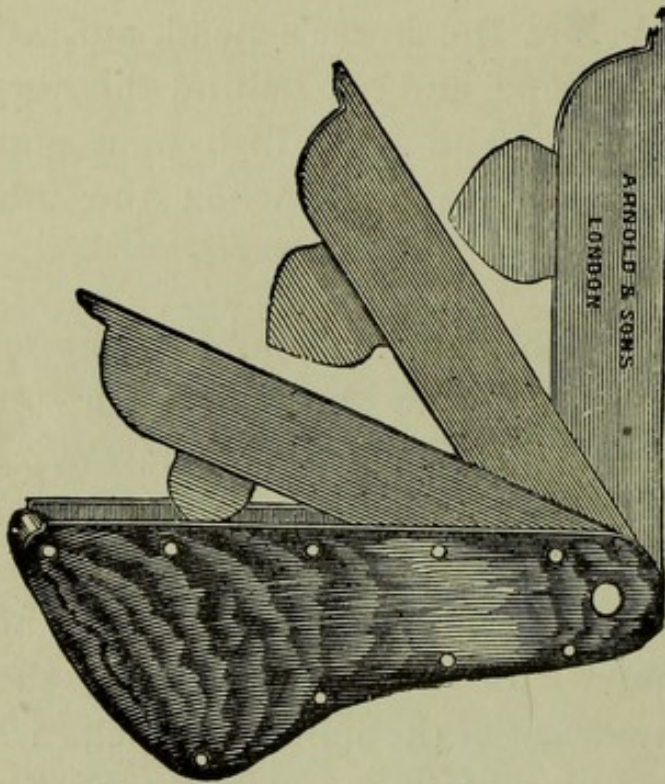
MINOR SURGERY—*continued.*

Let two men stand before the horse's head, and take firm hold of one end of the rope, and two behind the horse, firmly holding the other end; and let a fifth man stand at the horse's shoulder, ready to push when the other men pull.

When all are ready, let the four men holding the rope ends pull hard, and the man at the shoulder push hard, and the horse will fall over on his side on the straw. As he falls the ropes must be kept quite tight, and the man at his shoulder must run to his head, stretch it back in a line with his neck, and sit on it. The other men must now "come up hand over hand" on the ropes, keeping them tight meanwhile; and must fasten the horse's fetlocks with the ropes, tying the fore and hind fetlocks securely together. On no account must the horse be allowed to lift its head until the operation is finished and the ropes are finally taken off, as if he gets his head up, he will struggle, and very probably injure himself.

A "Twitch" can also be used if the horse is very troublesome.

Anæsthetics may be given, but the animal must first be cast; and the anæsthetic then placed on a sponge, and applied to the nose until the animal is thoroughly under its influence, the sponge may then be removed, and re-applied only on the animal shewing signs of returning consciousness.

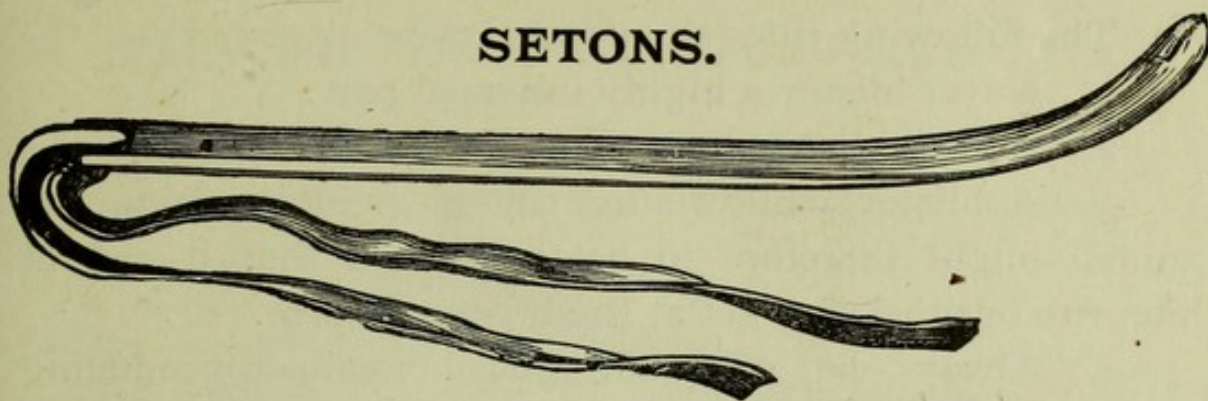
MINOR SURGERY—*continued.*

3 Bladed Fleam.

*Mallet.***BLEEDING.**

In latter day surgery this has almost died out: sedative and other remedies being used instead. Bleeding, however, is sometimes beneficial. The most usual place to bleed is the jugular vein, which runs up the side of the neck, and which on pressure at the base of the neck soon swells visibly. The fleam should be used. Press a little below the place you select for incision, then apply the fleam to the distended bloodvessel, and smartly tap with a small wooden mallet, and remove as much blood as is desirable (which can best be judged by the quieting of the pulse) and then fix up the bloodvessel with the twisted suture (see illustration).



MINOR SURGERY—*continued.***SETONS.***Seton Needle and Tape.*

Setons are used to drain an abscess, or to cause counter-irritation, &c. To insert one, take a seton-needle and tape (see illustration), and pass the needle under the skin, pulling the tape through. Tie a piece of wood to each end of the seton tape to prevent it working out (see illustration). The tape is often smeared with Blister Ointment. A seton, however, is a slow agent compared with blistering.

BLISTERING.

Blistering is frequently adopted in cases of inflammation, but blisters should only be applied when the *acutely* inflammatory stage has *passed*; to cause absorption, to stimulate the part; to hasten the ripening of an abscess, or to reduce an enlarged gland, or bony enlargements. Their use is occasionally attended with injurious results; but this is usually owing to the fact that the blister is either too powerful, too frequently applied, or applied to a much larger surface than is necessary. The result is then sometimes a blemish, or absorption of the blister to such an extent that it acts injuriously on some of the internal organs, more especially the urinary organs, producing strangury of the neck of the bladder.

*Seton inserted.*

MINOR SURGERY—*continued.*

The following rules should always be observed:—

1. Never blister a highly inflamed part.
2. Do not blister more than two spots at one time.
3. A blister, while rising, causes great irritation, the animal ought therefore to be tied up so that it cannot bite, rub or otherwise get at the blistered place.
4. Always be on your guard against producing strangury.

Should the blister cause excessive nervous debility, wash the part with warm water, and apply equal parts of sweet oil and lime water over the part and give the animal three or four doses of "**Hewthorn's Sedative Extract**" during the next twelve hours.

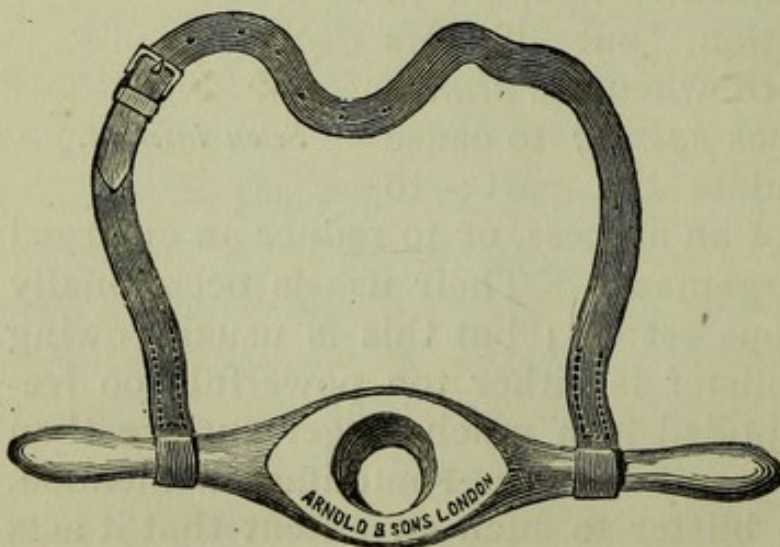
PROBANG—USE OF.



6 FEET LONG.

Probang.

Sometimes the organs of swallowing are paralysed in



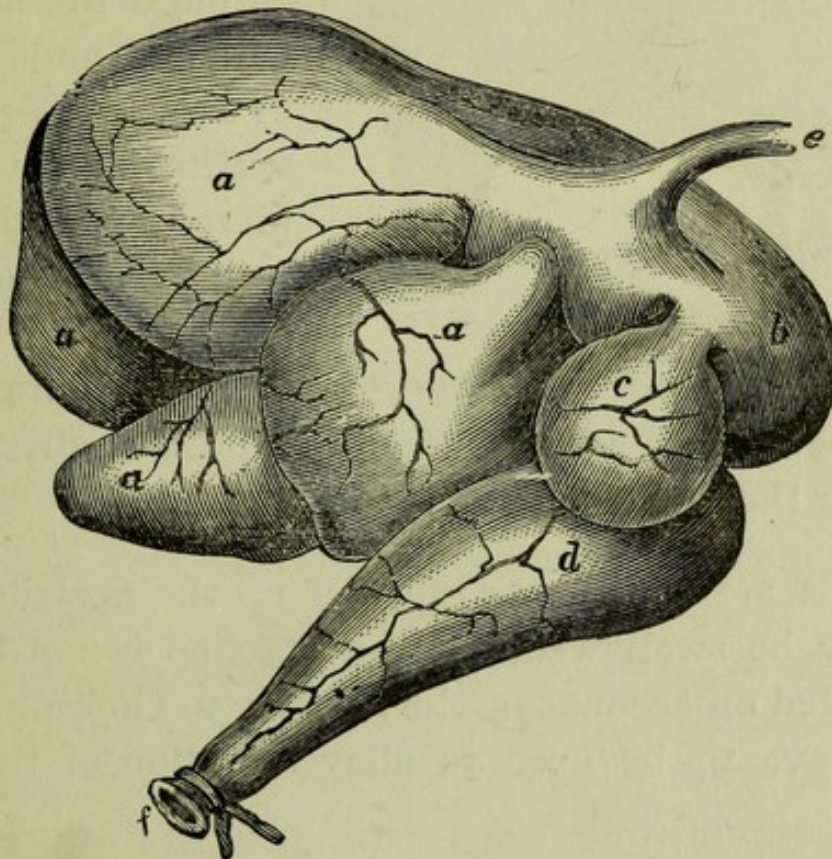
Gag for Probang.

animals, or foreign substances may block the gullet. To remove the obstacle a hollow probang is used. (This can also be used to give fluid medicines.) The probang is guided through the

mouth by the use of a gag. For fuller details see also article on "Choking," in the Tenth Section of this book.

MINOR SURGERY—*continued.***TROCAR AND CANULA—USE OF.**

The first stomach of ruminants is very large and lies flat on the left side of the belly. Sometimes it has to be



Stomach of the Ox.

- | | | | |
|--------------|--------------------|--------------------------------|---------------------|
| a. Rumen | ... First Stomach. | d. Abomasum | ... Fourth Stomach. |
| b. Reticulum | ... Second ,, | e. Gullet. | |
| c. Omasum | ... Third ,, | f. Entrance to the Intestines. | |

punctured to allow gases to escape; to enable its contents to be removed, or occasionally to enable medicinal agents to be introduced. This opening is done by means of a trocar and canula. A spot is chosen between the last



Trocar and Canula.

rib and the lower part of the haunch bone, and eight

MINOR SURGERY—*continued.*

or nine inches below the back bone of the ox (see

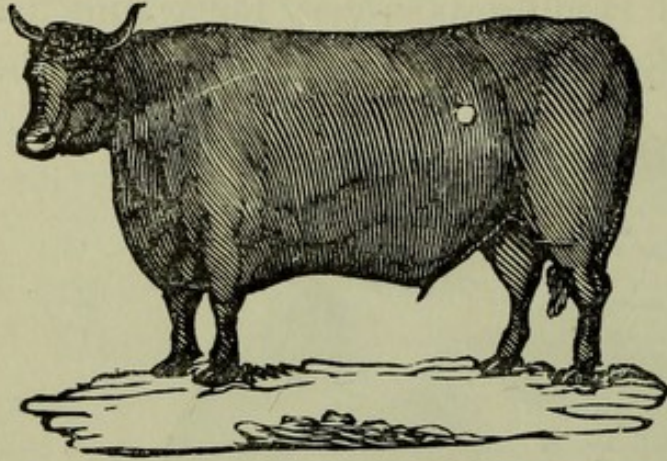
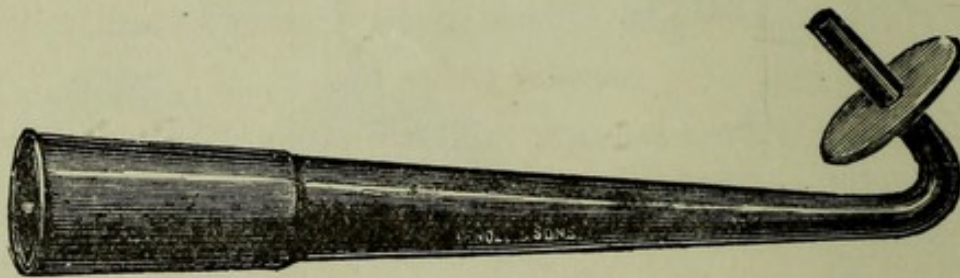


illustration). A small incision is made through the skin with a lancet and then the trocar is pushed with sufficient force to pierce the abdominal wall and enter the rumen. The trocar is

White spot where Trocar must be inserted. then withdrawn, the canula being left in the opening, and the air, &c., can escape, or the medicaments be inserted.

Fluids are sometimes injected up the nostrils so that they may be swallowed, but the practice is not to be recommended on account of the liability to choking. Where agents have to be used to allay irritation of the mucus



Tube for Nasal Douche.

membranes of the nasal passages, a tube is used with beneficial results (as in illustration). The fluid is poured into the tube and rises by atmospheric pressure, and when one nostril is filled the liquid passes over and flows down the other nostril; each nostril can be alternately treated this way. Where astringents are required, this method is to be recommended.

CHAPTER IV.

**THE TEETH OF THE HORSE AND
THEIR VARIOUS CHANGES.**

The periods at which the teeth of horses are cut are so regular that by inspecting the mouth the age of the horse can invariably be determined, to within a few months. The adult horse ought to have forty teeth. At birth a foal has cut the first or second grinders and molar teeth, and about a week afterwards, the first pair of temporary incisors appear. Within six weeks the next lateral pair come, followed by the third or last pair between the sixth and ninth month; making six for each jaw. The molars are also coming, but the incisors indicate the age.

At one year old the teeth are fully developed, the central nippers being the largest. At two years old the mouth has grown larger, the teeth looking small and worn on the surface. The first pair of central teeth (temporary), are replaced at from two and a half to three years old, by two permanent nippers, their greater size shewing that the animal is in its third year.

The next pair of incisors are cut a year later, and the last pair come at about four years and a half old; so that at five years the animal has a full mouth, the outside teeth already being a bit shelly.

All half-breed horses date their birth from MAY 1st, and thoroughbreds from JANUARY 1st. For six months after a birthday a horse is so many years "off"; and, for the next six months, he is "rising" so many years. It is therefore easy to tell a horse's age from one to five years by the number of the teeth, temporary or permanent. After that, however, it is difficult to be accurate. When

TEETH OF THE HORSE—*continued.*

the incisors first attain their full growth, the little concavity on the crown of the tooth is filled with a black looking material; and, as the teeth keep growing, this cavity becomes smaller, and at six years old the two central teeth will have nearly lost their "mark." At seven the second pair will have lost their mark; and at about eight years the outside two teeth have also lost the marking; thus clearly showing such an animal to be eight years old, or "aged."

The tushes come through at about the same time as the last pair of incisors. They are, at five years old, level with the incisors. The age of geldings, when over seven, is principally noted by the shape of these teeth (the tushes); but this is not so in the case of mares, as in them the tushes are frequently absent altogether. As age increases the point of the teeth loses its sharpness, and the inner surface its concavity, so that it becomes round.

There are a great many tricks resorted to with the object of making colts look more than their age; such as extracting their temporary teeth, &c. The time of year should therefore be considered as well as any one sign. Again, if a colt be kept on soft food, or kept on grass, the teeth will retain a "young looking" appearance; whilst young colts fed on dry stuff will soon wear the youthful appearance off their teeth. Unscrupulous dealers frequently "bishop" a horse's mouth; that is to say, resort to the rasp and hot iron to make an old horse's teeth look younger. Old horses are thus at times palmed off as "seven year olds," by digging out the crowns of the corner teeth, burning them, and then filling them with blackish composition, and thereby producing an artificial "mark."

DISEASES OF THE HORSE.

FIRST SECTION.

DISEASES OF THE BRAIN AND NERVOUS SYSTEM.

- (1) CEREBRO-SPINAL MENINGITIS.
- (2) CONGESTION AND INFLAMMATION OF THE BRAIN—MAD, BLIND OR SLEEPY STAGGERS—PHRENITIS.
- (3) CONVULSIVE DISEASES OR FITS—APOPLEXY—EPILEPSY—FALLING SICKNESS—ST. VITUS' DANCE OR STRING-HALT.
- (4) GIDDINESS—MEGRIMS—VERTIGO.
- (5) HYDROPHOBIA.
- (6) LOCKJAW OR TETANUS.
- (7) PALSY OR PARALYSIS.

CEREBRO-SPINAL MENINGITIS.

Definition.—Inflammation of the brain and spinal marrow and their coverings, associated with paralysis.

Causes.—Generally epidemic. It occurs most frequently during cold weather, and is said to be due to poisonous atmospheric germs. It is frequently fatal, but not contagious, and it is unnecessary to separate horses attacked with it.

Symptoms.—In the severe form, the animal is suddenly attacked with spasm, or with loss of swallowing power. The hind quarters soon turn cold, and become tender to pressure on the spine. The horse cannot stand, and the contents of bladder and bowels escape freely. The

CEREBRO-SPINAL MENINGITIS—*continued.*

neck stiffens as in lockjaw. Great excitement sometimes precedes the attack. The animal batters its head against the wall or stall, utters loud outcries, and generally dies in great agony. Temperature of both rectum and skin is much lower, but should it increase to 103° or 104° death is almost certain. Urine and pulse hardly alter at first, but the breathing becomes "snoring."

Treatment.—Place animal at once in a well padded sling, next bandage the legs warmly, and brush the horse thoroughly. If able to swallow, give some good soft food; keep quiet and in a warm dark stable, and if urine suppressed draw off with a catheter. Give full doses of whisky combined with a wineglassful of "**Hewthorn's Anti-febrile Stimulant**," 3 or 4 times daily. Full doses of "Sulphate of Atropine," hypodermically injected are useful. If excitable, give a dose of "**Hewthorn's Sedative Extract**," repeating 3 or 4 times daily. Ice to the spine, or hot salt bags may be tried. Animal should not be put to work for some time after this malady; but plenty of good food with "**Hewthorn's Conditioning Powder**" mixed with it should be given until health is completely restored.

**CONGESTION & INFLAMMATION OF THE
BRAIN—MAD, BLIND or SLEEPY
STAGGERS—PHRENITIS.**

Definition.—Overfullness of the blood vessels of the brain, leading to inflammation and insanity.

Causes.—Exposure to the sun, blows, suppression

PHRENITIS—*continued.*

of urine, poisoning, brain tumours, over-driving, over-feeding, or feeding on distillery wash; collar pressure, &c.

Symptoms.—The animal is dull, listless, and drowsy. Slower breathing accompanied by snoring; the pulse becomes slower, in the horse 26 to 30 per minute, and the animal staggers and appears likely to fall. Looks excited and frightened if startled. Occasionally leans its head against stable wall or pushes its nose into the rack. Later the feet and ears are hot and cold alternately, and the eyes fixed; convulsions follow; the animal reels and falls; sight fails; the head is struck against adjacent objects; the tongue frequently protrudes; or there is spasm of the face or general palsy.

Treatment.—If the pulse is full and slow, bleed from jugular vein, taking 4 to 6 quarts, but if it is feeble and weak, do not bleed. Purge in all cases at once. If a horse, give one of "**Hewthorn's Physic Balls**"; If cow or ox, "**Hewthorn's Purgin' Drench.**" Keep the animal quiet and in darkened stable, allow plenty of water but no food, and bathe head frequently with ice water. Repeat the purge on second day if first has not acted properly. To reduce fever, give a tablespoonful of "**Hewthorn's Antifebrile Stimulant**" 3 or 4 times daily in gruel. When convalescence sets in give occasional doses of "**Hewthorn's Blood Purifying Salt,**" if horse; or "**Hewthorn's Cordial Drench,**" if ox or cow.

**CONVULSIVE DISEASES or FITS—
APOPLEXY—EPILEPSY—
FALLING SICKNESS—STRINGHALT or
ST. VITUS' DANCE.**

Definition.—Apoplectic Fits are rare in horses, though not uncommon in cows during calving, when the condition is called “parturient apoplexy.” Epileptic fits are frequently seen in overfed pigs, but rarely in horses or cattle. **Stringhalt**—the most important form in horses—is so called from the sudden jerking up of the hind leg from the ground, and the equal suddenness with which it is set down again. It may shew in walking or trotting, or when the animal is merely moved from side to side in the stall. Both hind legs or only one may be affected. The animal may go all right for twenty or thirty yards and then shew the halt; due to the sudden peculiar jerk or clonic spasm of the muscles.

Treatment.—Stringhalt is practically incurable, and increases as the animal grows older. Rest and one of “**Hewthorn's Purgative Balls**” once a fortnight, with a dose of “**Hewthorn's Sedative Extract**” twice a week, will, however, lessen the frequency of the attacks. “**Hewthorn's Sedative Extract**” may be given twice daily if the attack is severe.

MEGRIMS—VERTIGO—GIDDINESS.

Definition.—A brain disease involving temporary loss of muscular control, slight muscular spasm, and loss of sensation, without any inflammation.

Causes.—Extra pressure of blood on the brain, owing

MEGRIMS—*continued.*

to a badly fitting collar, excessive work when too fat, constipation, local irritation (as worms), and probably hereditary tendency.

Symptoms.—Animal suddenly stops, shakes his head, and seems giddy. This either passes off, or he, when at work, reels and trembles, probably falls and remains partially insensible for a minute or two, staggers to his feet, and continues excited for hours or possibly days. The fits occur with more or less frequency.

Treatment.—As soon as noticed, stop the horse, quiet him if excited, remove collar, shade the eyes, and pour cold water over the head. Rest well, and move slowly home. If fat, the horse may be bled moderately from the jugular vein. Keep him in a quiet stable and give one of "**Hewthorn's Purgative Balls**" every fortnight. If the megrims are *epileptic* in character "**Hewthorn's Sedative Extract**" given 2 or 3 times daily for a week or two, will be very beneficial. If due to irritation from worms give "**Hewthorn's Worm Powder**" for 3 days, and then one of "**Hewthorn's Purgative Balls**" In stallions castration is often a cure. Carefully avoid collar-pressure upon the blood-vessels.

HYDROPHOBIA.

Definition.—An incurable disease arising spontaneously in the dog and cat, and communicated by their saliva to the horse, cow, sheep, swine and man. It affects the brain, nerves, and mental faculties, and is incurable.

Causes.—In the horse, cow and sheep it is always produced by the bite of a mad dog or other rabid animal.

HYDROPHOBIA—*continued.*

Symptoms.—These appear in horses from 15 to 90 days after being bitten; in cattle 20 to 30 days; in swine 20 to 50 days; in sheep 20 to 25 days. In the horse the patient trembles; eye looks wild; he grows furious and attempts to run and trample and bite at anyone near, kicks violently, jerks his muscles, penis protrudes, and animal finally becomes paralyzed. It is easily distinguishable from other forms of delirium. The ox is also excitable and restless, grinds his teeth, bellows loudly, and rushes at any obstacle or person approaching. Sheep and pigs also display in their own peculiar manner the savage mad ferocity which characterises this terrible disease.

Treatment.—None should be attempted. Immediately shoot the animal, if it is known to have been bitten by a mad dog, even if symptoms are not pronounced.

Precautions.—As it is true that many animals bitten by mad dogs do not take this disease, preventive measures should be taken, especially where the animal is valuable, by *well* cauterizing the wound with nitrate of silver or the red-hot iron, and keeping the bitten animal isolated and quiet until the period of development named above is passed. Give moderate diet and abundance of water. If hydrophobic symptoms appear, destroy at once.

TETANUS or **LOCKJAW.**

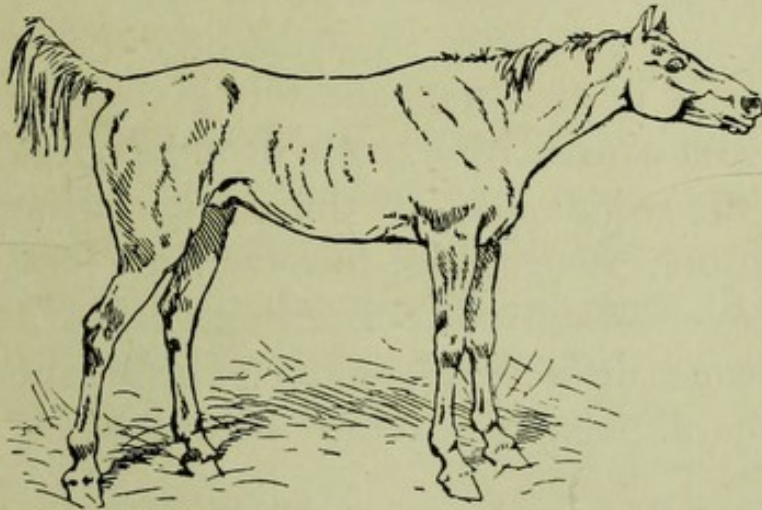
Definition.—Painful prolonged spasm of the muscles of the face, which contract rigidly, and firmly close the jaws.

Causes.—Numerous. Most frequently, wounds in the legs or feet, fractures, castration, docking, blistering,

LOCKJAW—*continued.*

strangles, &c. It may arise without apparent cause. It is frequent in the horse, but rare in cattle.

Symptoms.—In the early stages the muscles of the injured part become stiff. The head is pushed forward



Lockjaw (Tetanus).

and the neck becomes rigid; the stiffness gradually spreads to, more or less, all the muscles of the body, even the tail being stiff and quivering; the animal grinds his teeth, champs his jaws, and froths at

the mouth; the breathing becomes rapid; the pulse increases and the nostrils are dilated. The bowels cease acting, the abdomen is tympanitic, and swallowing brings on a hard dry cough. The two unmistakable symptoms however are protrusion of the "haw" (the membrane of the eye), and the closing of the jaws.

Treatment.—This disease is almost incurable if the symptoms are pronounced. If the symptoms are mild and slow in developing, the first step, if attack is due to a wound or injury, is to clean the wound carefully, cut it open if it seems puckered, and apply a linseed poultice containing an ounce of tincture of laudanum. Place the horse in a perfectly quiet dark stable, away from all others; support by comfortable padded slings, and give "**Hewthorn's Sedative Extract**" 2 or 3 times daily. No visitors must be allowed to see the patient. Veterinary aid should be got at once, however, as this disease requires skilled treatment to cope with it in almost every case.

PARALYSIS or PALSY.

Definition.—Partial loss of muscular power, owing to brain or nerve mischief arising from irritation, disease, injuries, &c.

Causes.—Paralysis in the hind quarters is common in horses and cattle from constipation, colic or indigestion. In cows and mares, the womb may be the cause, during heat or after parturition; such cases, however, are only temporary, and recover when the exciting cause is relieved. When the cause, however, is injury to or organic disease of the spinal cord, palsy is generally incurable.

Symptoms.—General weakness of the hind limb or limbs; the fetlocks knuckle over, and there is difficulty in moving. The animal falls on its haunches, and cannot get up if the attack is severe. There is no noticeable fever nor mental excitement, and both pulse and breathing are normal.

Treatment.—Aim at removing the cause. If it be colic, give a dose of "**Hewthorn's Gaseous Black Drink**," followed by one of "**Hewthorn's Purgative Balls**," or "**Hewthorn's Purging Drink**"; if the spine is tender, rub it well with "**Hewthorn's Matchless Embrocation**." When due to calving, give "**Hewthorn's Yellow Purging Drench**," which, combined with care, is generally sufficient; but if still obstinate, rub the spine with "**Hewthorn's Blister Ointment**" once or twice; or electricity to the parts affected may even be tried. Give "**Hewthorn's Cordial Drink**," or "**Cordial Drench**" till convalescent, when "**Hewthorn's Condition Powder**" should be used daily.

SUNSTROKE.

Definition.—Injury to the brain from exposure to the sun's rays, causing sudden loss of the power of motion and also complete or partial unconsciousness.

Causes.—Exposure to sun during the warm months of the year; the subjects most frequently attacked being fat, young, feeble and old horses. Shading the head in the country frequently prevents this malady; or using a loose collar; or, better still, a breast-strap, and a wet sponge on the head.

Symptoms.—When badly attacked, the animal suddenly stops, extending all four limbs like props, the breathing becomes violent, and the animal drops and dies in convulsions. In milder attacks the animal is dull, unsteady in gait, eyes protrude, and nostrils are dilated. The skin is felt to be hot, pulse quick and weak, and heart violent and irregular in its action; if recovery takes place the after effects are generally, dullness, irritability and weakness on exposure to hot sun.

Treatment.—Pour buckets of cold water over the body, douching especially the head and neck. Rub the animal briskly with rough cloths or straw wisps, &c. As a stimulant during the attack give frequent doses of "**Hewthorn's Antifebrile Stimulant**": (30 to 60 grains of quinine hypodermically injected under the skin several times is said to be very efficacious). After the attack, place the animal in a shaded field, allowing plenty of water; and a dose of "**Hewthorn's Antifebrile Stimulant**" once or twice a week may be given to complete the cure.

SECOND SECTION.

DISEASES OF THE ORGANS OF
BREATHING.CAUTIONS IN TREATING DISEASES OF THE BREATHING
ORGANS.

- (1) ASTHMA—BROKEN WIND—HEAVES.
 - (2) BRONCHITIS—COLD IN THE CHEST.
 - (3) CHRONIC COUGH.
 - (4) CATARRH—COLD IN THE HEAD.
 - (5) INFLAMMATION OF THE LUNGS—LUNG FEVER—PNEUMONIA.
 - (6) INFLUENZA—PINK EYE—THE EPIZOOTIC—CONTAGIOUS CATARRHAL FEVER.
 - (7) PLEURISY.
 - (8) ROARING—HIGH BLOWING—THICK WIND—WHISTLING
 - (9) RUNNING FROM THE NOSE—NASAL GLEET.
 - (10) SORE THROAT—LARYNGITIS—PHARYNGITIS.
-

N.B.—As diseases of this class are common among horses, we think it desirable, before describing them, to give a few general

CAUTIONS REGARDING THEIR TREATMENT.

CAUTIONS IN TREATING DISEASES OF THE BREATHING ORGANS.

1.—GREAT CARE OUGHT TO BE TAKEN IN GIVING PURGATIVES, as in diseases of the chest and throat there is great risk of the bowels being affected with inflammation; and strong purgatives may increase this and lead to very serious complications. Should the bowels be inactive, "**Hewthorn's Laxative Oil**" may be given, or warm enemias of soap and water employed.

2.—DEPRESSING REMEDIES MUST BE AVOIDED, such as calomel, digitalis, lobelia, &c., as great exhaustion and weakness are generally present, and anything that increases these lessens the chance of recovery.

3.—USE BLISTERS, TURPENTINE, MUSTARD, AND OTHER COUNTER-IRRITANTS VERY SPARINGLY, as they generally increase the fever and cause great excitement and distress. Hot fomentations, poultices, or hot salt bags are much more beneficial. These latter can be put on with an eight-tailed bandage. (*See also illustration page 15.*)

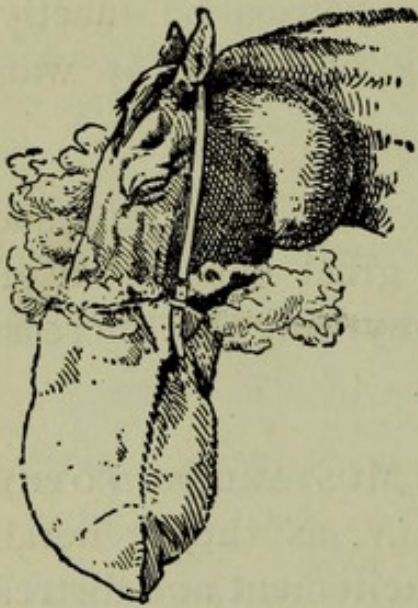


Eight-tailed Bandage.

4.—BLEEDING OUGHT RARELY, IF EVER, BE RESORTED TO. Remedies innumerable exist potent enough for lowering the pulse and reducing the temperature without lessening the quantity of blood.

GENERAL CAUTIONS—*continued.*

5.—DO NOT GIVE DRENCHES IN DISEASES OF THE THROAT OR WHERE THERE IS MUCH COUGHING. Neglect of this rule frequently aggravates the disease by half suffocating the animal, and, by irritating the bowels, leads to serious complications. Electuaries (as **Hewthorn's Cough Linctus, &c.**) are theretore indicated.



Steaming the Nostrils.

6.—IT IS ESSENTIAL IN ALL CASES OF CHEST MISCHIEF to carefully clothe the animal with rug and hood, and place him in a comfortable well-ventilated loose box; bandage the legs up to the hocks and knees, and steam the nostrils 2 or 3 times daily with bran or sawdust in a bag (*as per illustration*), pouring a table-spoonful of turpentine mixed with 1 pint of boiling water over the contents of the bag.

ASTHMA—BROKEN WIND—HEAVES.

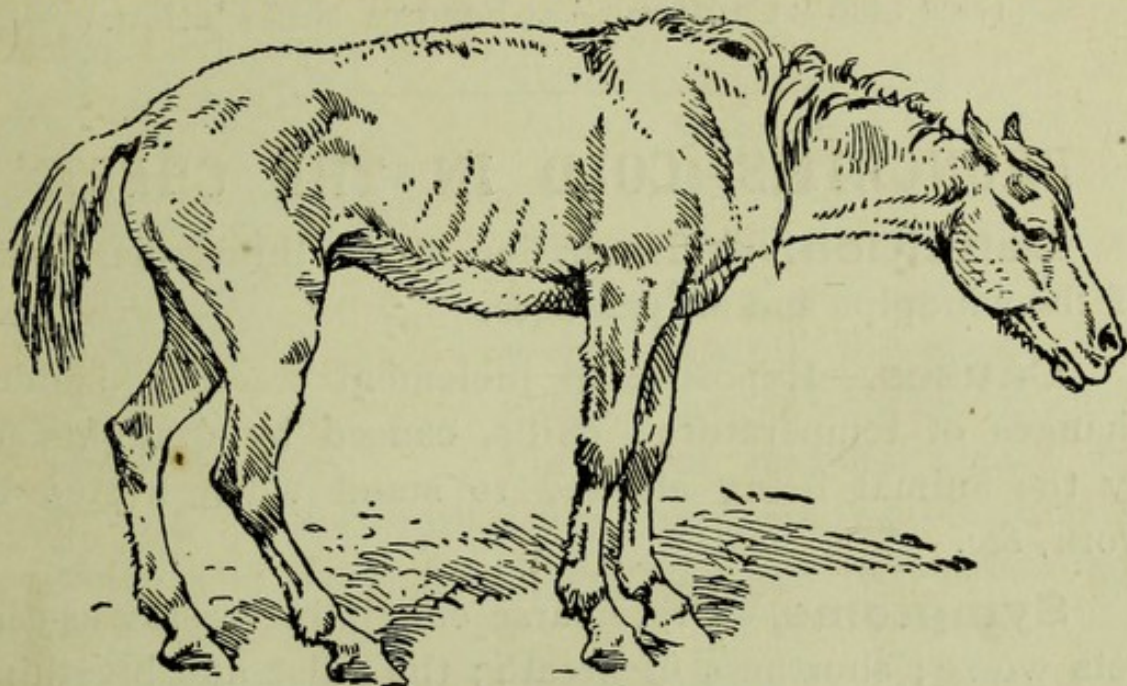
Definition.—A chronic form of lung disease without inflammation; but with characteristic breathing.

Causes.—Rupture of the smaller lung cells, which causes the expulsion of the air from them to be difficult. A full stomach and coarse food are predisposing causes, or the disease may be hereditary.

Symptoms.—The most apparent is the difficult expiratory effort, which is noticed by the peculiar movement

ASTHMA—*continued.*

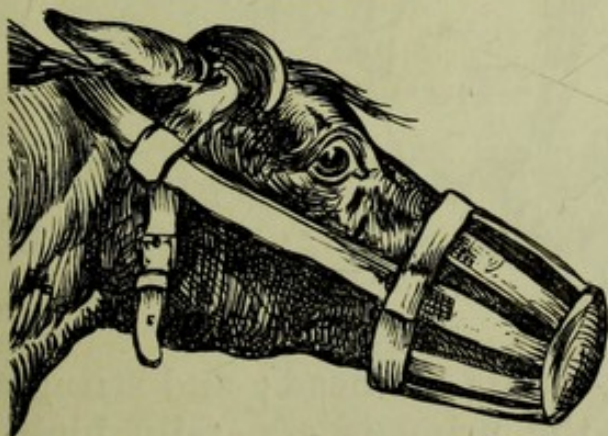
of the flanks and the line produced along the sides by the forced muscular action, (*see illustration*) the breath being drawn in with ease, but expired in two distinct efforts.



Asthma or Broken Wind.

This is associated with a peculiar hollow cough; and indigestion, unthriftiness, and flatulence usually accompany it. The hollow cough is always present, and the animal is generally dyspeptic, and the coat dry and staring.

Treatment.—This disease is incurable; but by feeding carefully on light nutritious food in small quantities — (muzzle a greedy feeder) — and giving “**Hewthorn’s Tonic Balls**” regularly every third day, with an occasional “**Hewthorn’s Purgative Ball**” — say



Muzzle for a Greedy Feeder.

once a fortnight — the severity of the symptoms will be greatly lessened. Work very gently after a feed. Mild

ASTHMA—*continued.*

cases are sometimes cured if the animal be fed on clean short grass. Should the animal take cold, treat at once as directed under that head.

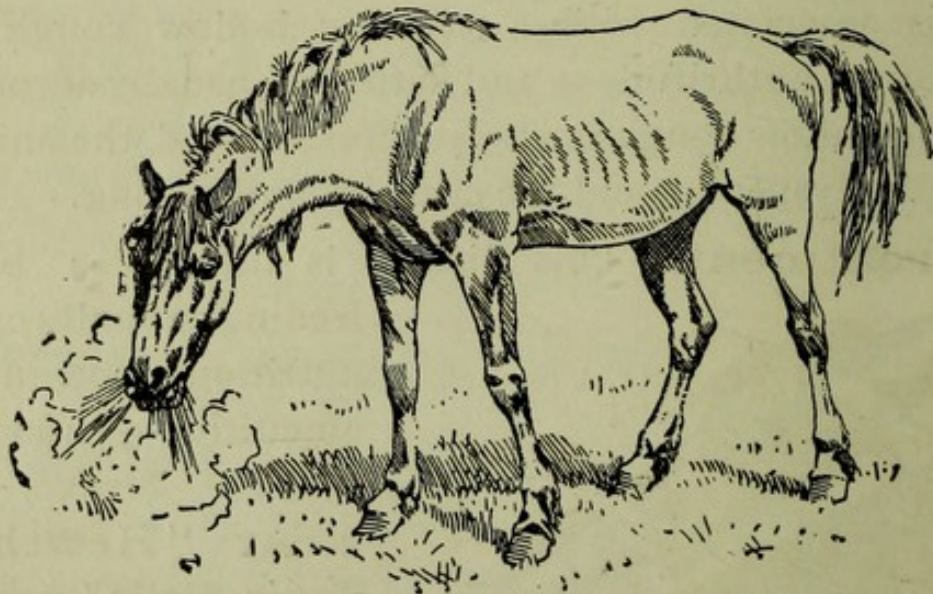
(See also "Cautions" at head of this section.)

BRONCHITIS—COLD IN THE CHEST.

Definition.—Inflammation of the lining membrane of the windpipe and air passages.

Causes.—Exposure to inclement weather, sudden changes of temperature; chills, caused by draughts, or by the animal being allowed to stand when heated by work, &c.

Symptoms.—Dry, hoarse cough, increasing as case gets worse; shortness of breath; the pulse and breathing accelerated to 70 to 80 per minute. Animal is listless and dull



Bronchitis.

and stands stiffly; is thirsty, hangs his head; and stringy mucus comes from mouth; the urine is generally high-coloured, and the bowels constipated. No dullness of chest on percussion (thus distinguishing it from pneumonia), and the breathing is not painful, thus shewing that pleurisy is

BRONCHITIS—*continued.*

not present. On applying the ear to the chest, or windpipe

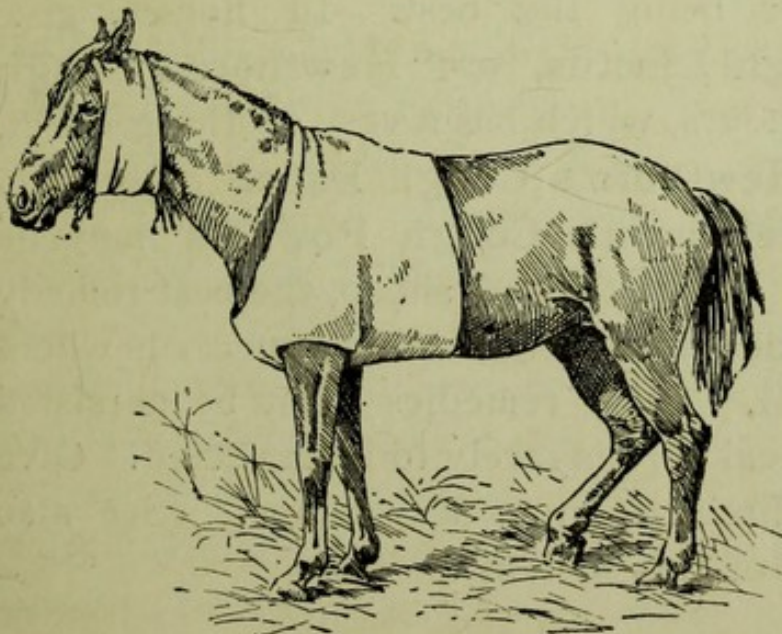


Listening for sounds in a Horse's Windpipe.

(*see illustration*) bubbling sounds, caused by the accumulation of mucus, can be heard. As the disease progresses a profuse discharge issues from the nostrils; but if it takes a favourable course, the cough becomes easier, the discharge gradually thinner, and ultimately it ceases; but, should the breathing quicken, the pulse become feeble and

rapid, and bloody froth hang from mouth; convulsions combined with severe fits of coughing generally follow, and end in death.

Treatment.—Avoid all depressing remedies such as bleeding, tartar emetic, &c. Give, in first stage, a dose of "**Hewthorn's Sedative Extract**," repeating two or three times in 12 hours; to reduce the fever give "**Hewthorn's Antifebrile Stimulant**" twice daily. If



Horse Bandaged and Clothed for Bronchitis.

bowels inactive inject oil and soap and water. Avoid purgatives. Give a spoonful or two of "**Hewthorn's Cough Linctus**" every 2 or 3 hours to soothe the cough; and, later on, to remove the cough

BRONCHITIS—*continued.*

and give tone to the system, give a "**Hewthorn's Cough**" and a "**Hewthorn's Tonic Ball**" alternately every day for a week. Poultice the throat with hot bran, or scalded hay, &c.; or rub the chest with "**Hewthorn's Matchless Embrocation**," morning and night. Clothe the animal, and treat generally as advised in the "Cautions" at beginning of this section, steam the nostrils three times a day, &c.

CHRONIC COUGH.

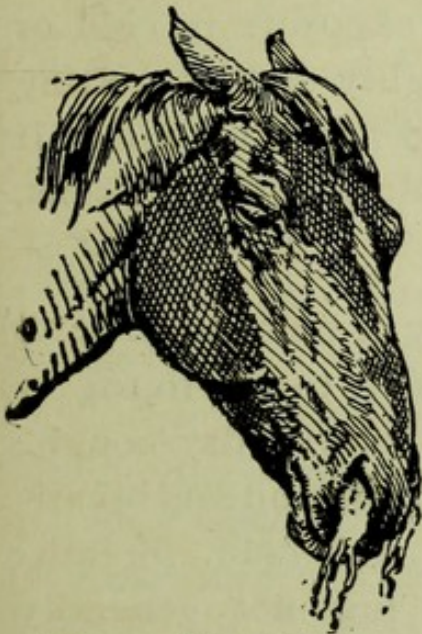
Definition.—This generally follows a neglected cold. Very many remedies can be recommended, and when one fails, after a fair trial, try another.

Symptoms.—The cough is invariably metallic and loud, and in cattle is generally accompanied with weakness and loss of flesh.

Treatment.—Rub the chest with "**Hewthorn's Matchless Embrocation**," or "**Hewthorn's Liquid Blister**," the latter being the best. In horses, give "**Hewthorn's Cough Linctus**," or "**Hewthorn's Cough Drink**" every four hours, which has a very soothing effect, and follow with "**Hewthorn's Cough Balls**" daily for a week or two; "**Hewthorn's Cough Powders** may be used for a change. In cattle and sheep, the best remedy is "**Hewthorn's Cough Linctus**," which succeeds where all other agents fail. These remedies must be persisted with, as a rapid radical cure is rarely to be expected. Give the medicines as directed on each package. (See also "Cautions" at head of this section).

CATARRH—COMMON COLD— COLD IN THE HEAD.

Definition.—This complaint arises from numerous causes, and may be said to be an inflammation of the lining membranes of the nostrils and sinuses of the head, usually produced by exposure, &c., and often preceding some more serious malady.



Horse with Cold in the Head.

Symptoms.—It generally shows itself first as a slight attack, the animal becoming restless; there is dullness of the eye, accompanied by a thin watery discharge from the nose, and also sometimes from the eyes; with slight shivering. The animal stands in a cramped position, the pulse is accelerated and the breathing increased.

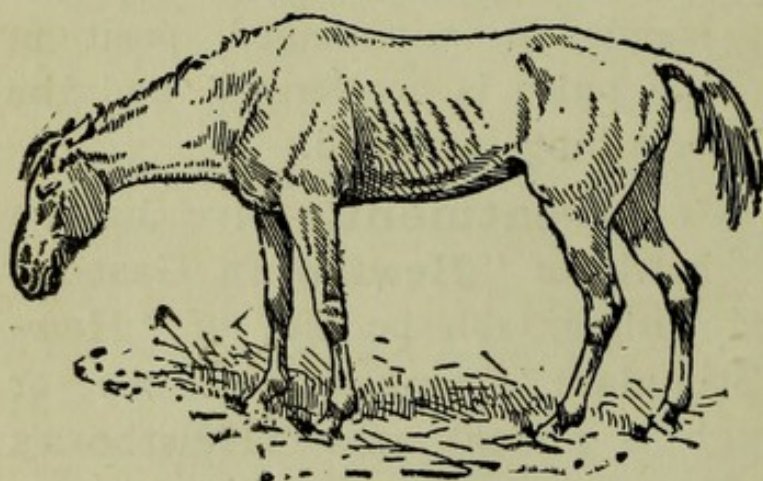
Treatment.—Give half a bottle of “**Hewthorn’s Gaseous Black Drink**” mixed with a tablespoonful of “**Hewthorn’s Antifebrile Stimulant**” in warm gruel once or twice a day. If cough is present, give “**Hewthorn’s Cough Drink**,” or “**Hewthorn’s Cough Linctus**,” as directed on the bottles; and a dose of “**Hewthorn’s Cough Powder**” morning and evening for several days in linseed mash or tea. Keep the animal in a well ventilated loose box, warmly clothe and bandage, follow the above treatment with gentle exercise and a dose of “**Hewthorn’s Cordial Drink**” twice a week, and “**Hewthorn’s Conditioning Powder**” twice daily until the animal recovers completely.—(See also “**Cautions**” at head of this section).

INFLAMMATION OF THE LUNGS— LUNG FEVER—PNEUMONIA.

Definition.—Inflammation of the lungs proper, followed by exudation of lymph, which may become organised, leading to death by suffocation, or suppuration; or, by gradual absorption, to recovery.

Causes.—The general cause is exposure to cold or sudden changes of temperature; draughty stables, getting wet, chills, &c. Slight colds often end in pneumonia. It may also be brought on by impure atmosphere, poisons, or exhausting diseases.

Symptoms.—Increased rapidity of pulse to 70 or 80 beats per minute; temperature rises rapidly to 103° to 104° or



Pneumonia.

more; dry cough; legs and ears invariably cold. Breathing not generally quickened; and, unless accompanied by pleurisy, not painful. There may be a discharge from nostrils, if so,

it may be blood-stained or rusty in colour. Horses affected always stand to the last; cattle on the other hand invariably lie down. In 3 or 4 days the breathing quickens, the pulse becomes feeble and irregular, and great weakness prevails. There is dullness on rapping the chest, showing that the lungs are becoming solidified. If the ear be applied behind the shoulder a fine crackling sound is heard instead of the soft, natural murmur. This is a sure indication of pneumonia.

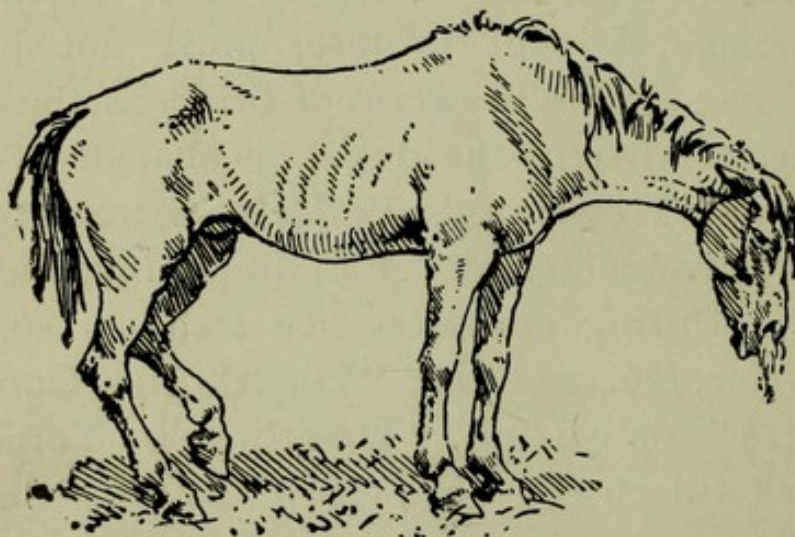
PNEUMONIA—*continued.*

Treatment.—Do not give depressing remedies. Place animal in a comfortable loose box, well ventilated, but without draughts. Clothe in rugs and bandage the legs, and steam the head as directed on page 12. Give plenty of water, adding a bottle of "**Hewthorn's Fever Drink**" to the bucketful. If bowels are constipated give enemias of hot water and soap, or oil if obstinate. Give alternate doses of "**Hewthorn's Antifebrile Stimulant**" and "**Hewthorn's Fever Drink**" every two hours, until improvement shows, when give the "**Antifebrile Stimulant**" only, every three hours. If very weak, give "**Hewthorn's Cordial Drink**" alternately with "**Antifebrile Stimulant**," instead of "**Hewthorn's Fever Drink**." Give soft food only in very small quantities, such as hay tea, bran mashes, boiled linseed, gruel, &c. Give "**Hewthorn's Cough Drink**" twice daily, and "**Hewthorn's Cough Linctus**" every hour to soothe cough, &c. Diarrhœa, if not profuse, must not be checked; and the same applies to excess of urine, as these conditions are a means whereby the disease is abated. To reduce pain, doses of "**Hewthorn's Sedative Extract**" three times daily are invaluable, in addition to the remedies before mentioned. During convalescence feed on soft food, good hay, carrots, &c., and give "**Hewthorn's Conditioning Powders**" daily; or "**Hewthorn's Tonic Balls**," twice a week till cured.—(See also "Cautions" at head of this section).

INFLUENZA—PINK EYE—EPIZOOTIC— TYPHOID CATARRH.

Causes.—To enumerate all the causes of this malady would be difficult, it having been known to follow a wet season, heat and dryness, fog and frost, and yet it may be absent when these conditions exist. Certain atmospheric conditions undoubtedly have considerable influence in inducing it. It generally appears during spring and autumn, but may break out at any season, in any locality, and on any kind of soil.

Symptoms.—Fever and excessive debility; the animal staggers as if drunk; rapid rise in the temperature; intense redness of the mucus membrane of the eyes; the



Influenza, or Pink Eye.

pulse becomes depressed, the throat is frequently sore and swollen; and there is often a discharge at the eyes and nose. The animal presents a

haggard appearance, and there is great difficulty in swallowing; and, if the disease is not arrested, the liver fails in its functions, the red eye becomes yellow, and muscular pains supervene, frequently ending in death.

INFLUENZA—*continued.*

Treatment.—On the first symptom, the horse must be placed in a warm but well-ventilated loose box; the legs well bandaged and the body well clothed. Give at once a full dose of "**Hewthorn's Antifebrile Stimulant**" in oatmeal gruel or linseed tea, repeating 4 times daily. If the throat is sore, rub it with "**Hewthorn's Matchless Embrocation**," repeating twice daily for 3 or 4 days, and if there is cough, give a "**Hewthorn's Cough Drink**" twice daily, and use "**Hewthorn's Cough Linctus**" at intervals to relieve the throat and coughing. Give a mash consisting of oats and bran morning and evening, in which sprinkle a packet of "**Hewthorn's Blood Purifying Salt**," continuing until convalescence is assured. Steam the horse's head (*see* page 12) with scalded bran, sawdust, or hay, 3 or 4 times daily, half-an-hour each time, unless the breathing is laboured. Thin gruel and water ought to be kept in the animal's manger, and the diet ought to be light, nutritious and frequently varied; a few carrots, roots, a handful of old hay, a little grass, &c., may be given. Continue giving "**Hewthorn's Antifebrile Stimulant**," night and morning, till the animal is quite well. Give walking exercise when the animal is improving, and one dose daily for 3 or 4 days of "**Hewthorn's Cordial Drink**," in old ale.

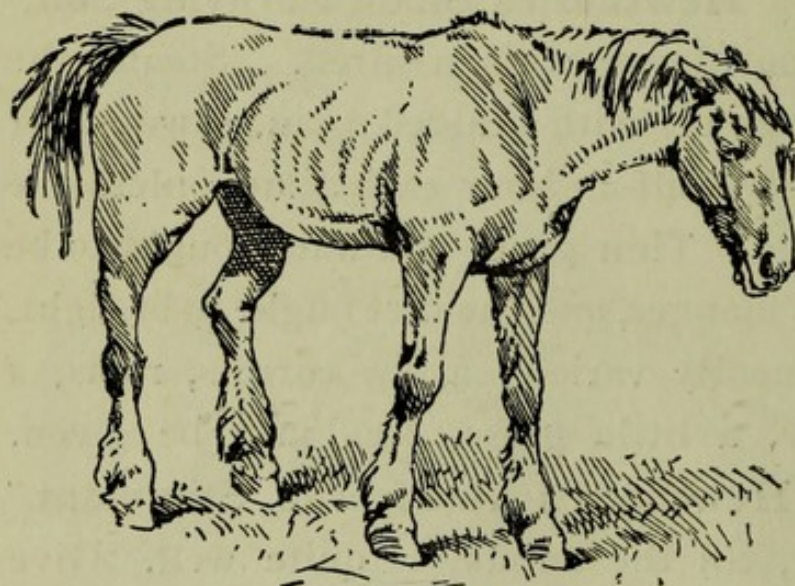
(See also "Cautions" at head of this section).

PLEURISY.

Definition.—Inflammation of the pleura, (the membrane covering the lungs) with exudation of fluid into the chest resulting in pressure on the lungs. One or both lungs may be affected.

Causes.—Exposure to cold is a frequent cause; especially after clipping the animal's coat. It is also often seen after a severe attack of pneumonia.

Symptoms.—At first there is generally a chill, staring coat, cold, clammy skin and signs of pain in breathing. Later on the animal appears stiff, and if pressed on the side affected he flinches. Respiration is generally abdominal. The pulse is hard and quick, and there is a short dry cough. If inflammation is excessive the animal moves



Pleurisy.

“stiff and stilty.” Percussion dull, and on listening at the chest in the early stage, a dry, creaking sound is heard, caused by the inflamed membranes brushing against each other. In the

second stage (hydro-thorax), which as a rule occurs from the second to the fifth day, the space between the membranes has become filled with fluid, and the sounds then disappear. The breathing is now more laboured; the nostrils are dilated, the pulse small and irregular, and the brisket becomes swollen, shewing that a dropical condition has arisen. This is called “hydro-thorax” or “water on the chest.” If limited in quantity recovery may yet take place.

PLEURISY - *continued.*

Treatment.—Clothe the animal well. In the first stage, give full doses of “**Hewthorn’s Sedative Extract**” every two hours, this frequently stops the malady in its first stages. Foment the sides by applying hot flannel cloths, and rub them with “**Hewthorn’s Embrocation.**” If no improvement in 3 or 4 hours, paint them with “**Hewthorn’s Absorbent Liniment,**” and give “**Hewthorn’s Sedative Extract,**” and “**Hewthorn’s Antifebrile Stimulant**” in alternate doses every two hours. Allow plenty of water, adding a “**Hewthorn’s Fever Drink**” to the bucketful. Give soft, easily digestible food, and keep quiet and warm. If the effusion into the chest continues considerable, in spite of rubbing and painting, the chest ought to be tapped. This, however, must only be done by a veterinary surgeon. To help in convalescence give a “**Hewthorn’s Tonic Ball**” daily, good food and rest, and otherwise treat as directed for convalescence from Influenza, Pneumonia, &c.

(See also “**Cautions**” at head of this section).

ROARING—THICK WIND—WHISTLING.

Definition.—Various breathing noises arising from diseased conditions of the throat or windpipe. **ROARING** is due to wasting of the muscles of the larynx. **THICK WIND** is due to a thickened and inflamed condition of the smaller branches of the breathing tubes. **WHISTLING** is due to narrowing of the upper portion of the windpipe near the larynx. Both whistling and roaring occur during *inspiration*.

ROARING—*continued.*

Causes.—Frequently, attacks of pneumonia, strangles, sharp colds, diseases of the nose, or tight reining. It is also sometimes hereditary.

Symptoms.—In addition to the above-mentioned sounds a roarer has a hard sharp dry cough. The breathing is, in “thick wind,” quickened; and a short dry cough is produced by hitting the animal on the side with a stick. A horse thus affected is sometimes called a “bull.”

Treatment.—Apply “Hewthorn’s Blister Ointment” to the throat, rubbing well in, and after a few days dress the place with “Hewthorn’s Healing Oils.” The blister may be repeated in a fortnight’s time. Give easily digested food, and allow the horse to rest an hour after feeding. Use “Hewthorn’s Cough Linctus” frequently, to soothe the throat, and give a “Hewthorn’s Cough Ball” twice daily also, as these have a very soothing effect.
(See also “Cautions” at head of this section).

**RUNNING AT THE NOSE—
NASAL GLEET.**

Definition.—Chronic inflammation of the lining membrane of one or both nostrils, usually extending to the sinuses (nasal passages) of the head.

Causes.—A neglected cold, or the after result of an attack of influenza. Foreign bodies lodged in the nasal passages, either accidentally or purposely; polypi, cancer, &c. are also causes.

Symptoms.—There is generally a bluish white discharge from one or both nostrils, rather thick and

RUNNING AT THE NOSE—*continued.*

offensive in smell. Ulcers may be seen on the nasal membranes, (but not pit-like depressions such as are seen in glanders). Care, however, should be taken not to mistake the two diseases, and until quite certain on this point the animal ought to be isolated, all feeding utensils, &c., kept for the patient alone, and the attendant cautioned to be careful both as regards his own safety and also that of any other animals under his care. Unhealthy condition and staring coat; irregular appetite, bowels may be either relaxed or constipated; and a cough may be present.

Treatment.—If the complaint be due to a foreign body or polypus, have same removed at once. Syringe the nostrils once daily with 2 table-spoonful of "**Hewthorn's Styptic Dressing**" to 1 quart water. Chloride of Lime sprinkled in the bottom of the manger is useful, and also steaming the head frequently (see page 12). Give "**Hewthorn's Conditioning Powder**," as directed, and a "**Hewthorn's Alterative Ball**" twice a week.

(See also "Cautions" at head of this section).

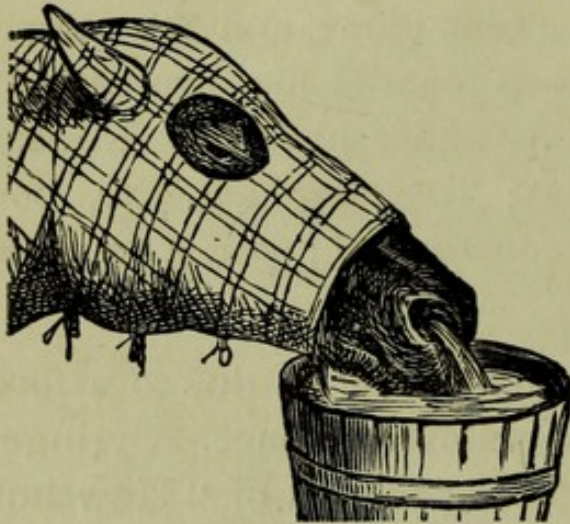
**SORE THROAT—LARYNGITIS—
PHARYNGITIS.**

Definition.—Inflammation of the membranes of the larynx and pharynx, accompanied with swelling of the parts; difficulty in swallowing, fever, and cough.

Causes.—Similar to those giving rise to catarrh (see page 17).

SORE THROAT—*continued.*

Symptoms.—In the severe form, this is a dangerous disease. The breathing is difficult and strained, the nose protrudes, the eyes are bloodshot and staring. The face presents a distressed appearance; there is a hoarse, rasping cough, and cold sweats on the body; and the ears and legs



Fluid returning through the Nose.

are cold to the touch. The animal becomes excitable, a discharge often comes from nose, fluid returns through the nostrils when the animal drinks, and there is invariably considerable difficulty in swallowing; and when prostration is extreme, a fatal issue

may be imminent. If treated in its first stages, however, these latter symptoms can be averted.

Treatment.—The throat ought to be fomented with hot water; and the animal's head steamed (see page 12). If no relief is afforded, and suffocation seems likely to take place, send for a veterinary surgeon at once, and keep the animal quiet. Owing to the swelling of the throat, drenches must not be given, but "**Hewthorn's Cough Linctus**" must be frequently smeared on the tongue; which will quickly give relief. Apply also "**Hewthorn's Matchless Embrocation**" to the throat, rubbing same in freely night and morning. If an obstinate case, use "**Hewthorn's Liquid Blister**" once or twice. Give good, easily digestible diet in small quantities, and a "**Hewthorn's Alterative Ball**" every third day until cured.

(See also "Cautions" at head of this section).

THIRD SECTION.

DISEASES OF THE DIGESTIVE
ORGANS.GENERAL REMARKS ON DISEASES OF THE ORGANS OF
DIGESTION.

- (1) BOTS.
- (2) COLIC (SPASMODIC)—GRIPES—FRET.
- (3) COLIC (FLATULENT) — TYMPANY — TYMPANITIS —
SWOLLEN BELLY.
- (4) CONGESTION AND INFLAMMATION OF THE LIVER—
HEPATITIS—JAUNDICE—THE YELLOWS.
- (5) CONSTIPATION—COSTIVENESS.
- (6) DIARRHŒA—SCOURING.
- (7) DYSENTERY—BLOODY FLUX—COLITIS.
- (8) INDIGESTION AND DYSPEPSIA.
- (9) INFLAMMATION OF THE BOWELS—ENTERITIS.
- (10) LOCAL INFLAMMATIONS IN AND ROUND THE MOUTH—
LAMPAS—VIVES—BARBS AND PAPS—TENDER AND
BLEEDING GUMS—DECAYED TEETH—TOOTH COUGH.
- (11) WORMS.

GENERAL REMARKS ON DISEASES OF
THE DIGESTIVE ORGANS.

These generally arise from errors in feeding, giving condiments made of *inferior* or *injurious* ingredients, or administering *cheap*, irritating, badly compounded medi-

GENERAL REMARKS—*continued.*

cines. The organs most affected are the intestines in the horse; and, generally, the stomachs in the ox or sheep. This, no doubt, is due to the different arrangement of stomachs. The horse only having one stomach, the intestines are, in his case, more susceptible to injury by any foreign body or agent than those of the ox or sheep, which, being ruminating animals, have four stomachs.

BOTS.

Causes.—These are originally caused by the gadfly depositing its eggs on the horse's mane, hair under the jaws, neck, or on the knees or other parts of the body the animal can lick. The eggs are swallowed; the moisture and saliva hatch them, and the small maggots attach themselves to the stomach and bowels of the horse. After reaching a certain age they loosen their hold and are passed off in the dung, where they become deposited on the ground and transform themselves into the mature fly.

Symptoms.—The presence of bots is often accompanied by indigestion, colic, staggers, and convulsions, but it is impossible to name any one single symptom which conclusively proves their presence.

Treatment.—To prevent, cut the hair near neck, &c., and keep all the parts likely to be attacked smeared during hot weather with "**Hewthorn's Fly and Maggot Dressing.**" As a remedy, give one or two of "**Hewthorn's Worm Balls,**" followed by one of "**Hewthorn's Purging Balls,**" and repeat in a week.

COLIC.

N.B.—The horse is subject to two kinds of Colic—SPASMODIC and FLATULENT, and it is *most important* to distinguish between the symptoms of Colic and those of ENTERITIS. (See comparative table of symptoms given under ENTERITIS at page 39.)

1st. SPASMODIC COLIC—GRIPES or FRET.

Definition.—A spasmodic contraction of the muscular coats of the intestines, causing severe colicky pains, and sometimes ending in true inflammation of the bowels.

Causes.—Improper food, exhaustion from overwork, drinking cold water *when the animal is heated*, worms, constipation, sudden changes of food, &c.

Symptoms.— There are sudden and frequently severe pains; the animal looking round at the flank, kicking at the flank with the hind, and pawing with the fore feet (see plate 1).

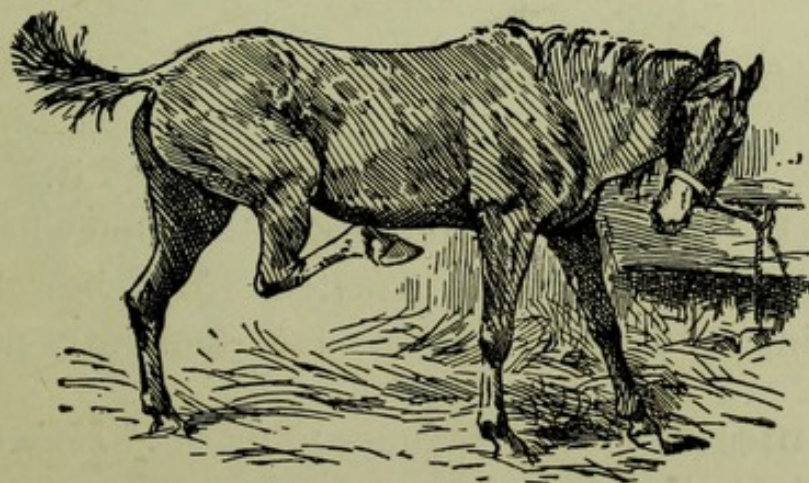


Plate 1.—First Stage of Spasmodic Colic.

Great restlessness, rising and lying down alternately

SPASMODIC COLIC—*continued.*

(see plates 2 and 3), kicking and struggling. There are sudden brief cessations of pain ; but it returns quickly.

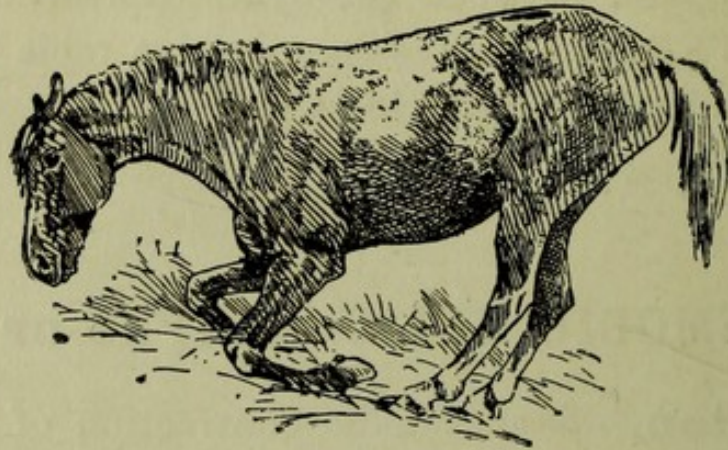


Plate 2.—Second Stage of Spasmodic Colic.

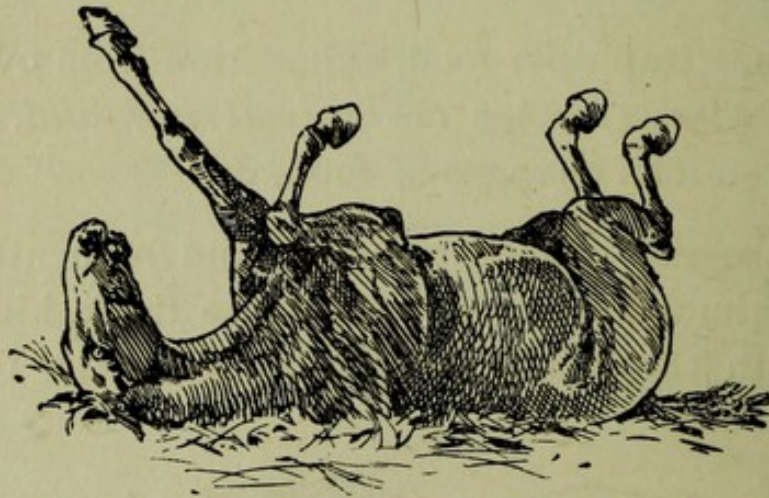


Plate 3.—Third Stage of Spasmodic Colic.

Pressure on the stomach *apparently relieves* it. During the attacks the pulse and breathing are somewhat more rapid, small discharges are expelled from bowels with great straining, and urine is scanty but frequently passed.

Treatment.—Give at once one of "**Hewthorn's Gaseous Black Drinks,**" repeating in 20 or 30 minutes, if not better. Procure free action of the bowels by at once injecting enemias of hot water and soap, and giving half a

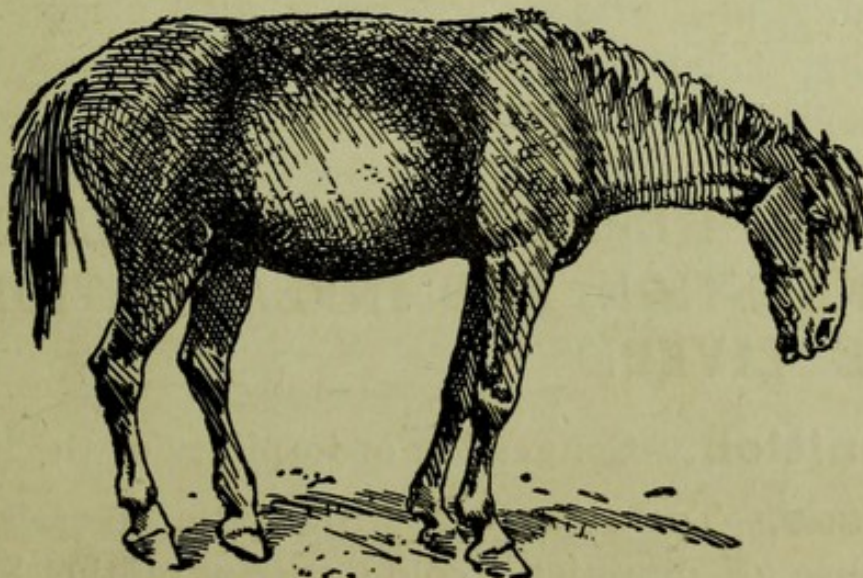
SPASMODIC COLIC—*continued.*

pint of castor oil, and one of "**Hewthorn's Purgative Balls.**" If the pain is not relieved in two hours give a full dose of "**Hewthorn's Sedative Extract**" and another "**Gaseous Black Drink,**" in half a pint of gruel. If these measures fail, seek veterinary aid, as Enteritis is probable. If worms are suspected, give a "**Hewthorn's Worm Ball, or Powder,**" and treat as directed for Worms. Feed sparingly on scalded chaff, oats, &c., and a few carrots or turnips may also be cut up and given in small quantities.

**2nd. FLATULENT COLIC—TYMPANITIS—
TYMPANY—SWOLLEN BELLY.**

Definition.—Distention of the bowels by gases, with tendency to rupture of their coats, or to inflammation.

Causes.—This is the most dangerous form of colic, and generally arises from giving foods which easily undergo fermentation, such as clover, potatoes, brewers' slops, &c.



A Horse with Flatulent Colic.

FLATULENT COLIC—*continued.*

Symptoms.—The pain is *more constant* in this form, although not so acute as in spasmodic colic; *the abdomen is swollen* and *pressure upon it gives pain*, and it sounds hollow and resonant on tapping; the pulse is rapid and feeble; feet and ears cold, and breathing difficult. The animal is dull and sleepy-looking; and, to avoid pain, stands fixed, or only moves stiffly and with difficulty.

Treatment.—Give immediately one of "**Hewthorn's Gaseous Black Drinks**" and half a dose of "**Hewthorn's Sedative Extract**;" repeating the dose in 20 or 30 minutes, if no relief; and, after this, every two hours till relieved. Clear out the bowels at once, and thoroughly, yet by gentle means. Violent purges are to be avoided. Oil the hand and arm and pass up the rectum; clean out the gut as far as you can reach, and then inject soap suds and oil. A dose of "**Hewthorn's Laxative Oil**" should then be given, or a "**Hewthorn's Purgative Ball**." Feed sparingly after the severe symptoms are allayed, giving mashes composed of bran, linseed, &c., in small quantities, and returning very gradually to usual food.

**JAUNDICE—HEPATITIS—THE YELLOWS—
CONGESTION AND INFLAMMATION OF
THE LIVER.**

Definition.—Congestion or torpidity of the liver.

Causes.—Too rich food with little exercise; *too* frequent use of diuretics; cold; sprain of the loins in riding; exposure to wet; bad food; or overfeeding.

JAUNDICE—*continued.*

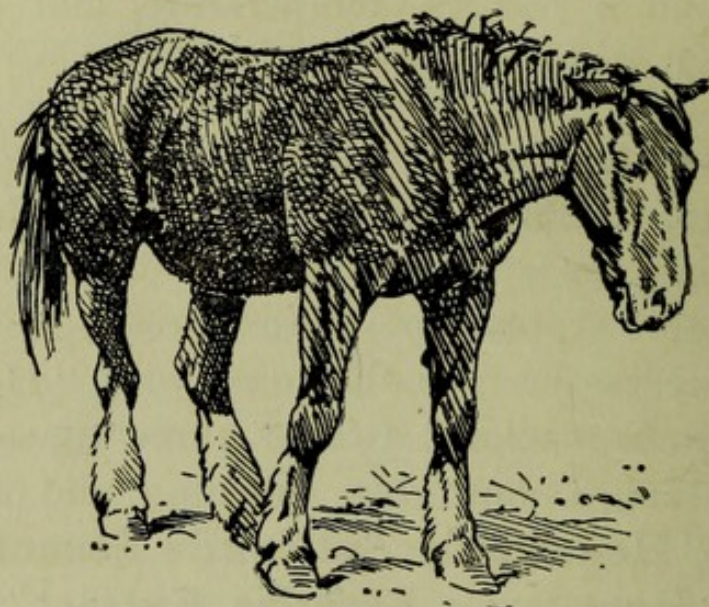
Symptoms.—The horse is dull; the eyes are dull; and the animal is dainty about its food; dung is expelled in small dark lumps; urine is scanty and dark in colour; pulse somewhat faster. In a few days the mucus membranes of the mouth and tongue and the white of the eyes become yellowish, the appetite irregular, the bowels constipated, and a rise in temperature and quickened pulse shew that fever is present.

Treatment.—In the horse, give one of "**Hewthorn's Physic Balls**"; if ox or cow, "**Hewthorn's Liver Drench**," repeating the second day if bowels are still constipated. Apply hot cloths to the loins, and if stimulant is necessary, rub the loins with "**Hewthorn's Matchless Embrocation**" two or three times. Do *not* act on the kidneys, but give, morning and evening, a half dose of "**Hewthorn's Antifebrile Stimulant**," and the same of "**Hewthorn's Sedative Extract**" in a pint of linseed tea or oatmeal gruel. In three or four days give one of "**Hewthorn's Alterative Balls**," or a dose of "**Hewthorn's Blood Purifying Salts**" daily. Change the diet, giving laxative food, cool fresh air, plenty of water, oatmeal drinks, &c., and abundant exercise. To completely cure and impart tone to the system, give half a bottle of "**Hewthorn's Cordial Drink**" daily for a week; and, as animal improves, gradually return to usual diet; giving with it "**Hewthorn's Conditioning Powders**" daily, as directed.

CONSTIPATION—COSTIVENESS.

Definition and Symptoms.—An accumulation of hard fæces in the bowels, causing difficulty in passing dung. There is straining, and only lumpy, hard dung is passed. The coat soon stares and feverishness arises.

Causes.—Debility, bad feeding, indigestion, want of exercise, and many other causes, owing to which, and



Constipation.

to the bowels being blocked, their peristaltic or “passing forward” action is stopped. This may be detected by placing ear to abdomen.

Treatment.—The diet ought to be laxative, and consist of mashes of linseed meal, bran, oatmeal, &c. Give a bottle of “**Hewthorn’s Carminative Oil**” and a “**Hewthorn’s Purgative Ball**” in the morning, followed in an hour by some warm, thin gruel. Repeat the Oil daily, until bowels are relieved. Give daily, gentle exercise, and a dose of “**Hewthorn’s Conditioning Powder**” in mash for a few nights. Do not return to work till the bowels are again acting properly. A “**Hewthorn’s Alterative Ball**” once a week tends to prevent constipation.

DIARRHŒA—SCOURING.

Definition.—Watery, and repeated discharges from the bowels, without inflammation.

Causes.—Irritation of the bowels, arising from indigestible food, worms, strong purgatives, diseases of the liver, or constitutional tendency.

Symptoms.—Frequent fluid discharges, brownish or clay-like in colour; the animal loses flesh and strength rapidly, the appetite fails, and symptoms of general break up begin to appear.

Treatment.—Keep the animal warm, and give nourishing, digestible food. If the scouring is due to irritants, give at once a bottle of "**Hewthorn's Carminative Oil.**" Later on give half a bottle of "**Hewthorn's Gaseous Black Drink**" (to which add 3 tablespoonfuls of "**Hewthorn's Scouring Remedy**") in half a pint of warm gruel, ale, or water, repeating twice daily till cured. Hot applications to the abdomen are also beneficial. If the scouring is persistent, give one of "**Hewthorn's Astringent Balls**" every alternate night for a week or so. In all cases it is very necessary to find the cause and remove it. For colts and foals half the above doses suffice.

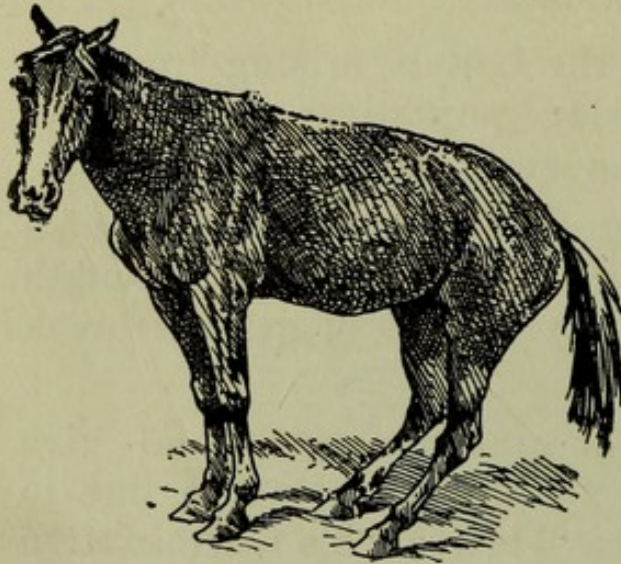
DYSENTERY—BLOODY FLUX.

Definition.—This is really an aggravated form of diarrhœa, inflammation of the lining membrane of the large intestines, causing a discharge of bloody fæces, accompanied by fever and straining.

Causes.—Irritating food, exposure, overwork, drinking foul water, &c. It is common in cattle, but rarely seen in horses. Feeding on unhealthy pasture is not an uncommon cause.

DYSENTERY—*continued.*

Symptoms.—Acute dysentery is noticed by the animal straining, and is accompanied by a watery-bloody



Dysentery.

offensive-smelling discharge, and pain in lower bowel, (which is shewn by the back being arched), shivering fits, quick pulse, great dullness, thirst, anxious eye, and rapid debility. The urine is high-coloured and scanty, and the anus red and sore. In the chronic form, the fæces

are dark and foul-smelling. There is great emaciation, the skin is unhealthy, the eyes sunken, and there is intense weakness.

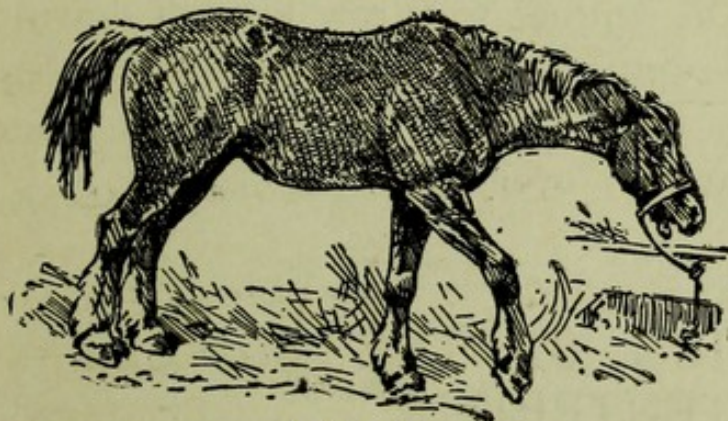
Treatment.—In the acute form, place the animal in a comfortable box, give good nourishing food in small quantities frequently repeated, such as linseed or hay tea, bran mashes, &c. Administer a bottle of "**Hewthorn's Carminative Oil**" combined with half a bottle of "**Hewthorn's Sedative Extract**"; repeat the latter remedy two or three times each 24 hours. Give enemata of warm water and linseed tea. Keep warm and well clothed, and, later on, give a few doses of "**Hewthorn's Cordial Drink**." If the diarrhœa is persistent give "**Hewthorn's Scouring Remedy**," which generally acts quickly, and, if this fails, a "**Hewthorn's Astringent Ball**" every morning for 3 or 4 days. In the chronic form, careful dieting and nursing are very necessary; tonics and cod liver oil being indicated. If fever is present, give occasional doses of "**Hewthorn's Antifebrile Stimulant**."

INDIGESTION or DYSPEPSIA.

Definition.—Indigestion is of two kinds; one due to mere overloading of the stomach, the other to derangement of the digestive functions from other causes.

Causes.—In young colts, the irritation of teething, draughts of cold milk, removing the dam too soon, &c. In older animals it may arise from debility, or weakness of the stomach, decayed teeth, improper food, ravenous eating, or engorging the stomach to excess.

Symptoms.—When *not* overgorged, there is loss of appetite, or it may be a capricious desire to eat filth: the animal is thirsty and the mouth sometimes sore. The coat is hide-bound and staring, skin scurfy, bowels irregular;



Indigestion.

there is flatulence, sometimes accompanied with colicky pains; diarrhoea; and frequently the animal has fits of giddiness. The fæces are dark coloured and small. The urine is of high

colour, and on standing it in a vessel it shows a deposit.

If from *overfeeding*, there are colicky pains; and, generally, fullness of the abdomen, pulse quick, and laboured breathing; the animal pawing with its fore feet, and belching wind. In bad cases the stomach becomes inflamed; the brain becomes affected and the animal is giddy, staggers, and is dull and sleepy. This is called “sleepy staggers.” Finally the brain becomes inflamed, producing “mad staggers”; which have been already considered (page 3).

INDIGESTION—*continued.*

Treatment.—First see that the mouth and teeth are all right, and if not, remove any cause of irritation there; inquire into the feeding, and give good, digestible food in moderate quantities at stated intervals and vary it with a few carrots, or green food, &c. Give one bottle of “**Hewthorn's Carminative Oil,**” and nightly give “**Hewthorn's Blood Purifying Salt**” or “**Hewthorn's Medicated Powder**” in a mash. Enemas of hot water and soap may be injected frequently till the bowels act properly. If colicky pains are present give a dose of “**Hewthorn's Sedative Extract**” in warm gruel. If “**Sleepy Staggers**” comes on give “**Hewthorn's Anti-febrile Stimulant,**” combined with small doses of whiskey, 3 or 4 times in the twenty-four hours. Care ought to be taken not to allow the animal to throw himself down, as if this is permitted rupture sometimes occurs. Animals liable to indigestion should have “**Hewthorn's Blood Purifying Salt**” regularly every day.

**INFLAMMATION OF THE BOWELS—
ENTERITIS.**

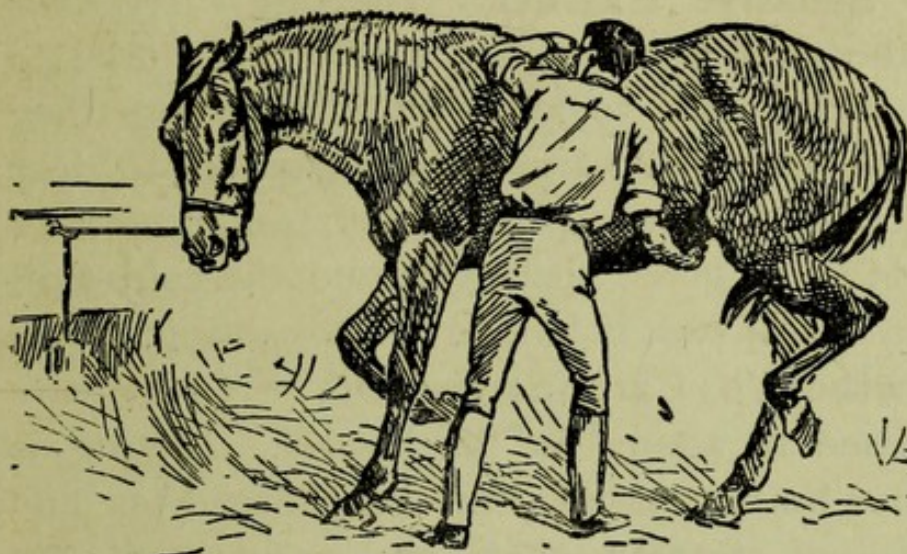
Definition.—Inflammation of the mucus membrane of the bowels, extending to the others, with disintegration of same, rapid in its course and very fatal.

Causes.—Exposure to cold, over fatigue, dysentery, irritating agents in the bowels, or blows, &c. on the abdomen. It sometimes follows severe colic.

Symptoms.—The animal has a depressed appearance, and shows signs of abdominal pain; becomes cold, though the breathing is rapid; and there is a watery discharge from the rectum. The pulse is hard, quick and wiry,

INFLAMMATION OF THE BOWELS—*continued.*

and the abdomen is *tender on pressure* (see plate).



A Test for Enteritis.

As the case progresses, the pain becomes more acute, the temperature increases, the animal looks round at his flanks, and eyes and face have an anx-

ious expression. The animal lies down cautiously, but remains down only a short time, springing on to his feet suddenly; the mouth is dry, the body is covered with cold, sweaty patches; or is extremely hot, and prostration is very great.

(N.B.—IT IS VERY IMPORTANT to distinguish ENTERITIS from SPASMODIC COLIC—see page 29—as the treatment is different.)

Symptoms of Inflammation of the Bowels—or Enteritis.—Gradually attacked with fever indicated. Pulse quickened, small and weak. Legs and ears cold. Belly tender and painful to the touch. Motion increases pain. Pain continuous. Weakness sudden and pronounced.

Symptoms of ordinary Spasmodic Colic.—Suddenly attacked. Pulse rarely quickened, but fuller. Legs and ears warm. Relief given on rubbing belly. If animal moved relief obtained. Intermittent pain. Strength rarely affected.

INFLAMMATION OF THE BOWELS—*continued.*

Treatment.—Give at once a full dose of “**Hewthorn's Sedative Extract**,” repeating every hour or two until the pain is relieved. Apply hot cloths to the abdomen, taking care to keep renewing before they get cold, and give soap and warm water injections to clear bowels. Give liberal supplies of linseed tea or oatmeal gruel; water is to be given sparingly, and the cold chill taken off. In a day or two, if bowels are not acting, give a dose of “**Hewthorn's Carminative Oil**.” Great care must be exercised in acting on the bowels. Dieting is important. Give bran or oatmeal mashes, linseed tea, and small quantities of steamed chaff, and a few oats, cut carrots, &c. When becoming convalescent, two half doses daily of “**Hewthorn's Cordial Drink**” given in warm gruel gives tone to the system; after three days give one dose daily. Great care must be taken of the animal, and rest is imperative until complete recovery is assured, and then “**Hewthorn's Blood Purifying Salt**” should be given daily for a few weeks after recovery sets in.

**LOCAL INFLAMMATION IN AND AROUND
THE MOUTH—LAMPAS—DECAYED
TEETH—TOOTH COUGH.**

General Symptoms.—When the horse has pain in the mouth, there is often champing of the jaws, and inability to swallow (food being returned to the manger). Loss of condition soon follows, he is restless and weary; and saliva frequently dribbles from the lips. These symptoms may arise from any of the following:

1st. LAMPAS.

Definition.—Inflammation of the ridges or bars in the roof of the mouth.

Causes.—Generally seen during dentition in young animals, but it may arise in old animals from injudicious feeding.

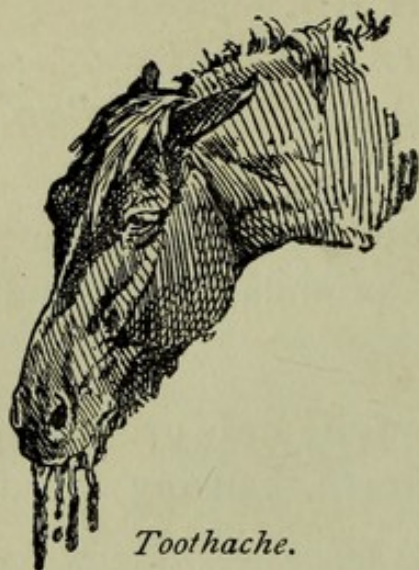
Symptoms.—The bars swell and are extremely tender; and project below the teeth, causing the animal to refuse all dry food.

Treatment.—Scarify the bars with a sharp lancet, or puncture them with a sharp horse nail, and apply a little salt to induce bleeding. Give a “**Hewthorn’s Fever Drink**,” and one of “**Hewthorn’s Alterative Balls**” daily, and feed the animal on mashes, giving one dose each day of “**Hewthorn’s Conditioning Powder**.” The gums may be bathed with an astringent lotion such as $\frac{1}{2}$ oz. Chlorate of Potash and $\frac{1}{2}$ oz. Alum to half a pint water. This treatment generally meets with early success.

2nd. DECAYED TEETH—TOOTHACHE.

Definition.—Decay of the teeth—mostly the molars, or back teeth. Either the crown, neck, or fang of the tooth may be affected.

Symptoms.—I. Quidding—that is returning the food into the manger half chewed owing to pain in masticating.

TOOTHACHE—*continued.**Toothache.*

2. Slobbering and dribbling from the mouth.
3. Redness, swelling and pain of the gums.
4. Black patches on the gums.
5. Pain if the tooth is tapped.
6. Offensive and foetid breath.

Treatment.—Prompt removal of the tooth is best, although stuffing the teeth with gutta-percha has been tried successfully in young and valuable animals. Give a dose of “**Hewthorn’s Antifebrile Stimulant**” every morning, and a “**Hewthorn’s Alterative Ball**” twice a week. If the tooth is removed the opposing tooth must be watched carefully, as it generally begins to grow into the space so left. Rasping or chipping the tooth periodically is therefore necessary. A mouth wash may be used as prescribed for “**Lampas**” if the gums are inflamed.

3rd. TOOTH COUGH.

Definition and Causes.—This complaint is generally noticed when the animal is about four years old and is associated with irritation of the throat and mouth, due to the cutting of the sixth molar tooth and the replacement of the third temporary molar by its permanent substitute.

Symptoms.—Very prolonged attacks of loud distressing coughing. These may be accompanied by indigestion (caused by imperfect mastication of the food, owing to tender teeth), loss of condition, and diarrhœa.

TOOTH COUGH—*continued.*

Treatment.—Give a half dose of “Hewthorn’s Cough Drink” night and morning; “Hewthorn’s Purgative Balls” once a week, and one of “Hewthorn’s Alterative Balls” thrice a week till recovered; when give “Hewthorn’s Conditioning Powder” for 2 or 3 weeks.

WORMS IN THE INTESTINES.

Definition.—These are of two kinds, the round and thread worm; the former are always found in the intestines proper; the latter in the rectum.

Symptoms.—Unthrifty coat, and voracious or irregular appetite. The anus is often itchy, which is shewn by the animal rubbing its hind quarters, and it often rubs its nose also, against the walls, &c.

Treatment.—Give one of “Hewthorn’s Alterative Balls” and examine the fæces; if worms are detected therein, give a bran mash over night, and in the morning give either a “Hewthorn’s Worm Ball” or one of “Hewthorn’s Worm Powders,” fasting for an hour afterwards; repeat for three mornings. Let this be followed by another bran mash on the third morning, and one of “Hewthorn’s Purging Balls” on the third night, to clear the bowels of dead worms. In cattle, sheep, &c., treat as above, but give “Hewthorn’s Purging Drench” instead of “Alterative and Purging Balls.” After getting rid of the worms, give “Hewthorn’s Conditioning Powders” daily for a fortnight; and then use “Hewthorn’s Thriving Mixture” in the morning and evening feeds for 5 or 6 weeks, to get up and maintain the general condition.

FOURTH SECTION.

DISEASES OF THE HEART, BLOOD-
VESSELS & ABSORBENTS.

- (1) ENLARGEMENT OR HYPERTROPHY OF THE HEART.
- (2) GREASE—GRAPES
- (3) INFLAMMATION OF THE ABSORBENT VESSELS—WEED
—SWOLLEN LEG—SHOT OF GREASE—LYMPHANGITIS.
- (4) INFLAMMATION OF THE JUGULAR VEIN—PHLEBITIS.
- (5) PALPITATION—VIOLENT HEART BEAT—THUMPS.

ENLARGEMENT OF THE HEART
or HYPERTROPHY.

Causes.—Indigestion, overwork, and diseases of the valves of the arteries, &c., all lead to enlargement of the heart. It is also often associated with broken wind.

Symptoms.—Palpitation is almost always apparent, and the heart sounds are increased. Exertion always increases these symptoms, and the breathing is hurried.

Treatment.—Freedom from excitement, overwork, or sudden exertion, combined with moderate diet may alleviate. “**Hewthorn’s Sedative Extract**” should be given, as in Palpitation (see pag 49). The bowels should be regulated by giving “**Hewthorn’s Purgative Balls**,” in horse, or “**Hewthorn’s Purging Yellow Drench**,” in ox or cow. With hard worked and aged horses “**Hewthorn’s Sedative Extract**” is to be given once daily, varied with an occasional “**Hewthorn’s Cordial Drink**.”

GREASE—GRAPES.

Definition.—Sub-acute inflammation of the skin of (generally) the hind legs; ending, if neglected, in grapes; and leading ultimately to canker in the horn and frog of the foot.

Symptoms.—Irritation. The horse rubs one foot with the other, the legs swell, the offensive greasy sweaty matter forms on the skin and heels, matting the hair; ulceration appears; followed by foul growths called “grapes.”



1. *First Symptoms of Grease.* 2. *First Stage of Grease, Exudation and Ulcers.* 3. *Later Stage, showing "Grapes."*

Causes.—Uncleanness, bad feeding, debility; allowing dirt, wet, urine or manure to remain on the limbs.

Treatment.—First cut the hair close and wash all the affected parts thoroughly with warm water and carbolic soap. Then “mop” well with “**Hewthorn’s Detergent Lotion**,” and put on a Fullers-earth poultice night and morning for two or three days, re-dressing with “**Hewthorn’s Detergent Lotion**” frequently. Give a bran mash the first night, and a “**Hewthorn’s Purgative**”

GREASE—*continued.*

Ball” next morning; and then give one of “**Hewthorn's Grease Balls**” every night till cured. If grapes exist and remain after a week, dress them with “**Hewthorn's Grease Dressing**” daily (see directions on package). This will usually act at once. Always wash off old dressings before re-dressing. To restore condition, give a packet of “**Hewthorn's Conditioning Powder**” in the feed morning and night for 3 or 4 weeks. If the horse is gross, feed chiefly on bran mashes, carrots and green food—very little corn. If poor, give a linseed mash daily, and good nutritive diet. Give one of “**Hewthorn's Grease Balls**” once a week, after recovery, to prevent further attacks.

INFLAMMATION OF THE ABSORBENT VESSELS — SWOLLEN LEG — WEED — SHOT OF GREASE—LYMPHANGITIS.

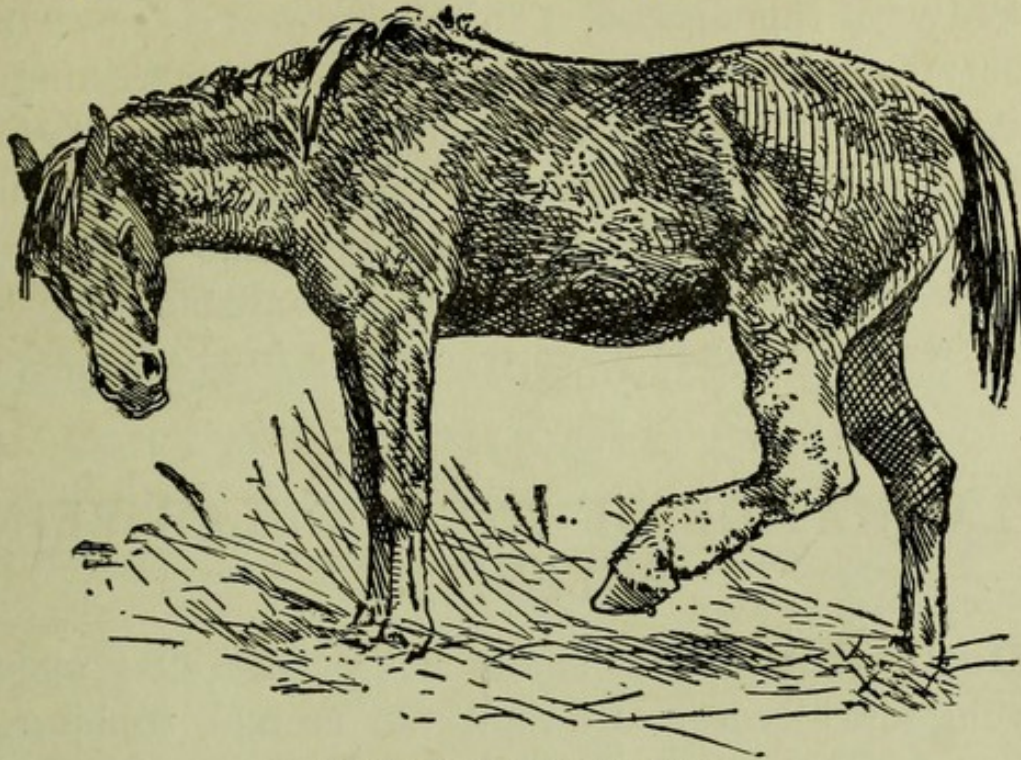
Definition.—Inflammation of the absorbent vessels or lymphatics of (generally) the hind legs, causing thickening of the cellular tissue and permanent swelling of the limb.

Causes.—High feeding and insufficient exercise, too much green food, &c. Coarse underbred horses are most subject to it.

Symptoms.—The animal is attacked suddenly, and often after a day's rest (hence, this is often called “Monday morning disease”). The limb swells considerably; there is great pain; the animal shivers; the pulse

SWOLLEN LEG—*continued.*

and respirations are very much quickened; the animal



Horse with Swollen Leg.

shows a painful expression on the face, and looks at the limb attacked, and perspiration rolls off him. Abscesses frequently form and burst inside the leg, unless freely lanced. Occasionally it leads to Elephantiasis.



Elephantiasis.

Treatment.—Clothe the animal comfortably, and give one of "**Hewthorn's Purgative Balls.**" Follow this by giving a "**Hewthorn's Fever Drink;**" repeating in two or three hours, if still feverish. Foment the limb with water as hot as the animal can bear, for two or three hours, and bandage loosely with hay wisps. Give one of "**Hewthorn's Swollen Leg Balls**" every night till cured. Keep the bowels active by giving "**Hewthorn's Laxative Oil**" occasionally; and give to drink twice daily a gallon of water with one ounce of saltpetre in it. If abscesses form, lance them; and dress the place

SWOLLEN LEG—*continued.*

with "**Hewthorn's Healing Oils.**" If an animal is once attacked with this disease, it invariably recurs, and "thick leg" is the result. This can be alleviated by bathing the skin daily with "**Hewthorn's Cooling Lotion,**" and giving a "**Hewthorn's Purgative Ball**" once a fortnight, and a course of "**Hewthorn's Swollen Leg Balls**" daily for a fortnight or three weeks. To restore and maintain condition, treat as directed when recovering from "Grease."

**INFLAMMATION OF THE JUGULAR VEIN—
PHLEBITIS.**

Definition.—This sometimes occurs after opening the vein for bleeding, through the animal rubbing the part, or from the operator having used a dirty or rusty lancet. It may be circumscribed, or it may extend up and down the vein.

Symptoms.—The vein is hard and painful to the touch, or when the animal moves its neck. A thin discharge comes from the wound, followed later by abscesses along the vein; which, as they burst, discharge thin foul matter; and, later, dark unhealthy pus. The horse grows dull and stupid, and the brain becomes inflamed, madness (phrenitis) and death follow.

Treatment.—Apply "**Hewthorn's Blister Ointment**" briskly. If abscesses form they must be opened; the wounds well bathed and then dressed with "**Hewthorn's Black Healing Oils**" before the blister is applied. When the wound is healed, apply the blister. Inflammation of this vein often ends by the inflamed vessel hardening and becoming converted into an impervious cord; in which case the animal should not be turned out

INFLAMMATION OF THE JUGULAR VEIN—*continued.*

to grass, as the blood has not room to get freely away from the head through the remaining vein on the other side of the neck, and dropsical swellings of the face, lips, and nostrils are the result.

PALPITATION OF THE HEART—THUMPS.

Definition.—Excessive and violent beating of the heart, due either to valvular disease or disease of the muscular tissue of the organ.

Causes.—Horses highly fed or pampered, or irregularly and violently exercised, are most subject to this complaint. Fright will increase the rate of heart beat in some horses; and indigestion and many of the blood diseases also frequently cause it.

Symptoms.—Increased action of the heart which is easily felt, seen and heard. Pulse irregular. If due to nervousness or temporary causes, the eye is excited, the breathing rapid, and the palpitation subsides quickly if the cause is removed. If, however, this does not take place, it points to organic disease of the heart, which is incurable.

Treatment.—This must depend on the cause; if due to excitement, remove the cause and give animal 2 or 3 doses of "**Hewthorn's Sedative Extract**" within the 12 hours. Do not overwork the animal. Indigestion and costiveness will be relieved by giving "**Hewthorn's Purgative Ball**" if horse, or a "**Hewthorn's Yellow Purging Drench**" if cow or ox, and otherwise following the treatment directed for these complaints. If due to debility, as sometimes is the case, an occasional "**Hewthorn's Tonic Ball**" or "**Hewthorn's Cordial Drink**" may be given every other day for 2 or 3 weeks.

FIFTH SECTION.

DISEASES OF THE KIDNEYS
AND BLADDER, AND OF THE
MALE SEXUAL ORGANS.

- (1) BLACK WATER IN HORSES—HÆMATURIA—AZOTURIA.
- (2) DIABETES—PROFUSE STALEING.
- (3) DISEASES OF THE MALE SEXUAL ORGANS—
CONTRACTIONS OF THE SHEATH—
EXTERNAL INFLAMMATION OF THE YARD.
- (4) INFLAMMATION OF THE BLADDER—CYSTITIS.
- (5) RETENTION OR SUPPRESSION OF URINE—STRANGURY
—DIFFICULT OR PAINFUL STALEING.
- (6) INFLAMMATION OF THE KIDNEYS—NEPHRITIS.

BLACK WATER OF HORSES.—HÆMATURIA
—AZOTURIA.

Definition.—This disease is due to the presence of blood in the urine. It sometimes attacks mares during the period of heat, but is also seen in geldings.

Causes.—The period of heat; severe strains due to violent or sudden exertion, especially after a long rest; congestion of the bladder, disease of the kidneys, &c.

Symptoms.—Animal is attacked suddenly; is unusually restless, inclines to lie down; sweats profusely; and there is sometimes loss of power in the hind limbs. The pulse and breathing is very much accelerated; occasionally, complete paralysis of the hind quarters supervenes. The urine is passed in large quantities, and is of a dark coffee colour.

BLACK WATER OF HORSES—*continued.*

Treatment.—Place the animal in a comfortable large loose box with plenty of bedding, and keep it as quiet as possible. Inject into the rectum clysters of cold soap suds to clear the bowels, repeating 3 or 4 times. Give “**Hewthorn’s Red Water Remedy**” 3 or 4 times a day. Feed very lightly on soft food, with a packet of “**Hewthorn’s Red Water Powders**” in every feed, and give linseed tea instead of water to drink. Do not blister, nor give strong purgatives. When the symptoms subside give half doses of “**Hewthorn’s Antifebrile Stimulant**” 3 times a day. Complete rest, rather plain diet, with abundance of fresh air for 2 or 3 weeks, helps to hasten a cure. Do not work the animal for several weeks.

DIABETES—PROFUSE STALEING.

Definition.—A profuse discharge of urine, caused, usually, by bad food having produced indigestion and irritation of the kidneys.

Causes.—It is invariably seen when the food given is of an indifferent quality, such as musty hay, mouldy oats, and inferior bran and chaff. Continually feeding on boiled food is said to be a frequent cause, sometimes it is attributed to contagious poison. When glanders is prevalent, horses are very susceptible to it.

Symptoms.—The most notable are incessant thirst, and profuse staleing of clear urine, free from smell. The appetite fails, or becomes depraved. The animal loses flesh; the coat is harsh and dry; pulse becomes weak and irregular; there is great exhaustion.

DIABETES—*continued.*

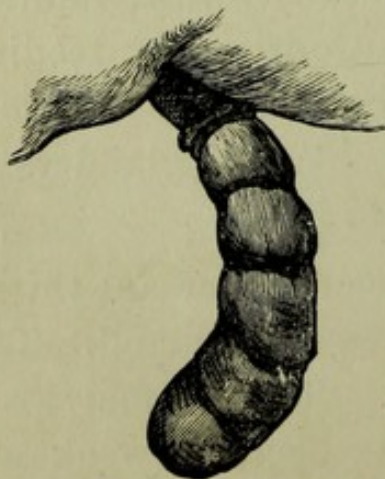
Treatment.—Immediately change the diet entirely, give bran mashes, and a dose of “**Hewthorn's Laxative Oil.**” In 24 hours give a “**Hewthorn's Purging Ball,**” and repeat in 3 days. Give two doses daily of “**Hewthorn's Diabetes Mixture**” in half-a-pint of water, and place in the drinking water a tablespoonful of baking powder. Give a half dose of “**Hewthorn's Cordial Drink**” every morning. Great care should be taken to give good sound food after recovery, to prevent a recurrence of the malady.

DISEASES OF THE MALE SEXUAL ORGANS.

I.—CONTRACTIONS OF THE SHEATH.



Phimosis.



Para-Phimosis.

Definition.—These take place either in front of the penis (phimosis); or behind its extremity, so that there is difficulty in getting the penis into the sheath, (para-phimosis).

Treatment.—This consists, first, in bathing the sheath well and constantly with cold water to reduce the inflammation; next, wipe dry and oil the parts well with “**Hewthorn's Healing Oils**”; and then careful manipulation may overcome the difficulty. If this fails, a lancet

CONTRACTIONS OF THE SHEATH—*continued.*

incision must be made up the sheath to allow the organ to return. "**Hewthorn's Cooling Lotion**" ought then to be applied; and "**Hewthorn's Healing Oils**" used afterwards at intervals to promote healing. If the bowels are costive give a "**Hewthorn's Purgative Ball.**" If paralysis is present, amputation must be resorted to, which a veterinary surgeon must perform.

2.—EXTERNAL INFLAMMATION OF THE YARD.

Definition.—This is of frequent occurrence from the presence of irritating substances, which are formed as the secretions undergo decomposition.

Symptoms.—At first, a slight discharge; then slight ulcers may be seen; the sheath emits an unpleasant odour, and considerable pain and swelling follow.

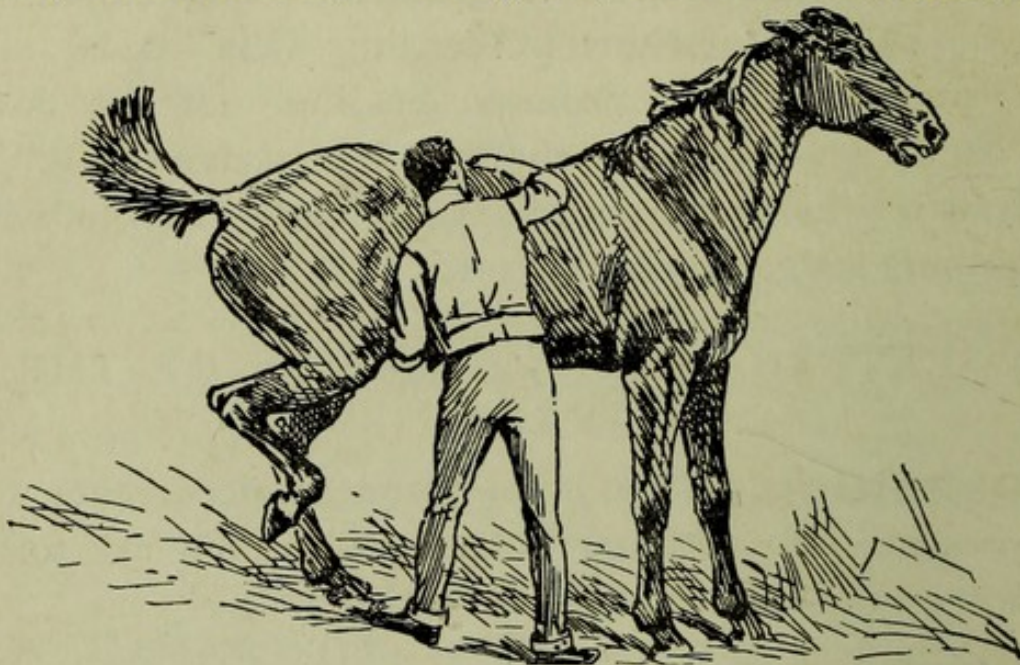
Treatment.—Cleanliness will always prevent this condition. When present great care ought to be observed. First well cleanse the parts with warm water and soap syringed into the sheath. A solution of 1 drachm of silver nitrate to a pint of water is then to be syringed into the sheath, and repeated every day until the granulations are reduced. "**Hewthorn's Healing Oils**" can then be used, and a dose of "**Hewthorn's Blood Purifying Salt**" given in a mash nightly, for a week.

**INFLAMMATION OF THE BLADDER—
CYSTITIS.**

Causes.—Rarely seen in the lower animals, except from violence, or through administration of irritating drugs, as turpentine, cantharides, &c.

INFLAMMATION OF THE BLADDER—*continued.*

Symptoms.—Cloudy, coloured urine is frequently passed, and evidently with pain; fever and diarrhœa are



A Test for Cystitis.

present, and the fæces are fetid. Pressure under the bladder shews tenderness there.

Treatment.—Give a full dose of “**Hewthorn’s Sedative Extract**” in linseed tea three times daily; and milk and whites of eggs beaten up in water as drinks. Inject an enema of tepid water daily, and rub the loins well morning and night with “**Hewthorn’s Embrocation.**” Do not give oil of any description. Keep the animal quiet and give plenty of linseed tea, &c., until convalescent; then give one of “**Hewthorn’s Condition Balls**” every other night till condition is restored.

**RETENTION OF URINE—STRANGURY—
DIFFICULT or PAINFUL STALEING.**

Causes.—This condition may arise from many causes; from loss of power in the bladder, (following colic, injury, staggers, constipation, obstruction, &c.); or from

RETENTION OF URINE, &c.—continued.

the use of irritating drugs, such as turpentine, cantharides, causing *strangury*, or inflammation of the neck of the bladder.

Treatment.—If the disease be due to loss of power a catheter must be passed, and the urine drawn off; this ought to be done by a professional man. If due to inflammation of the neck of the bladder (which is indicated by heat, tenderness, swelling of the part and general feverishness), injections of warm water containing 1 drachm of extract of belladonna to the quart must be frequently thrown up the rectum; or, in mares, up the vagina. Give full doses of "**Hewthorn's Sedative Extract**" to relieve the pain. Back raking ought to be resorted to; and a dose of "**Hewthorn's Laxative Oil**" given; or in cattle, a "**Hewthorn's Yellow Purging Drench**" in gruel, to which add a tablespoonful of "**Hewthorn's Antifebrile Stimulant.**" If the disease be due to weakness, use the catheter frequently, and give half bottle doses of "**Hewthorn's Cordial Drink**" morning and evening until recovery. Give "**Hewthorn's Conditioning Powder**" after convalescence for a few weeks.

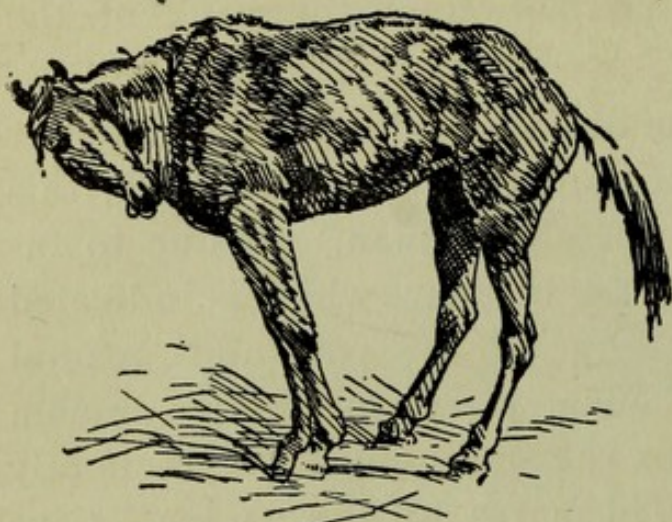
**INFLAMMATION OF THE KIDNEYS—
NEPHRITIS.**

This is seldom seen in the lower animals; and is more frequent in horses than in cattle.

Causes.—It is frequently induced by excessive use of diuretics, as cantharides, turpentine, or cotton oil; which agents all act directly on the kidneys and bladder. Exposure also will cause it; or it may arise from blows or strains.

INFLAMMATION OF THE KIDNEYS—*continued.*

Symptoms.—Fever with colicky pains ; constipated



Nephritis.

bowels ; hard, quickened pulse ; hurried breathing and great thirst. The animal seems stiff all over and appears in pain and is tender to pressure upon the region of the kidneys, and looks anxiously towards the affected part ; frequent efforts are made to stale,

but little urine is passed and that of a dark colour. As the disease advances the animal seems intoxicated, loses control of its limbs ; and a form of blood poisoning may arise, causing death.


Treatment.—Give in the first stage, one “**Hewthorn’s Physic Ball**” followed by a bottle of “**Hewthorn’s Laxative Oil.**” If inflammation is very high, give two or three doses of “**Hewthorn’s Sedative Extract**” in warm gruel, during the first twelve hours. If after twenty-four hours the bowels are still inactive, repeat the Ball and Oil ; wrap the loins in woollen cloths and keep fomenting with hot water. Give a tablespoonful of “**Hewthorn’s Anti-febrile Stimulant**” morning and evening, combined with the same quantity of “**Hewthorn’s Sedative Extract,**” in linseed or hay tea. Moderate diuretics are called for such as “**Hewthorn’s Diuretic Ball,**” but they must not be persisted with. Keep the animal warm ; feed on nutritious mashes ; and allow plenty of oatmeal gruel and such fluids to drink. After the second or third day give a “**Hewthorn’s Conditioning Powder**” nightly in a bran mash, repeating for several days. To complete the cure,

INFLAMMATION OF THE KIDNEYS—*continued.*

and give tone to the system, half a "**Hewthorn's Cordial Drink**" may also be given daily for a few days,—and "**Hewthorn's Conditioning Powders**" should be used regularly for a few weeks till strength and condition are quite restored.

SIXTH SECTION.**PARTURITION; & DISEASES OF THE FEMALE ORGANS OF GENERATION.**

- (1) PARTURITION.
- (2) ABORTION—MISCARRIAGE—PREMATURE LABOUR.
- (3) FLOODING.
- (4) INFLAMMATION OF THE VAGINA.
- (5) INFLAMMATION OF THE WOMB.
- (6) INVERSION OF THE UTERUS.
- (7) LEUCORRHŒA OR "WHITES."
- (8) PARTURIENT APOPLEXY.

 N.B.—Readers should also carefully peruse the Chapters at the beginning of this book on "Nursing," "Bandaging," "Fomentations," "Mashes," &c., &c., as the Hints given therein must be largely acted upon in treating the cases coming under the following headings.

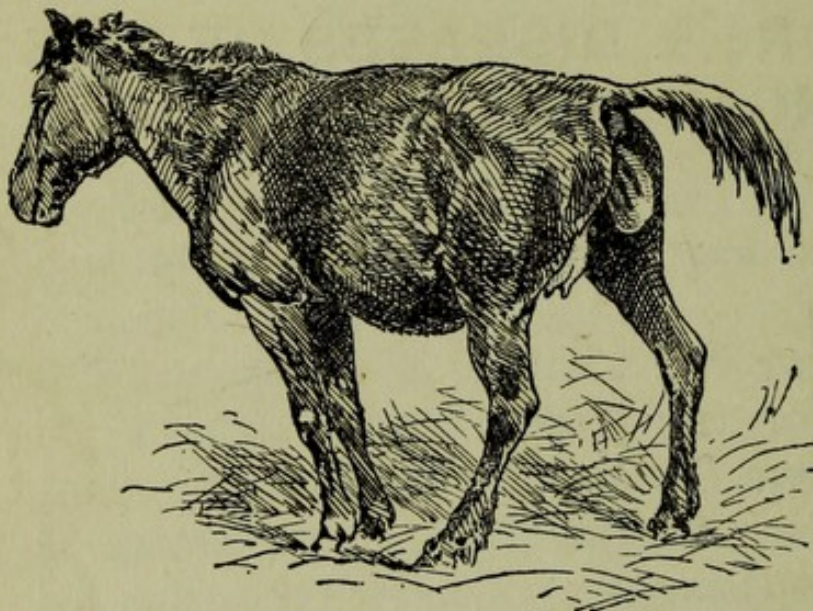
PARTURITION.

In the lower animals this is generally accompanied by very little pain and with few complications. Malpresentations, however, do sometimes occur. We do not, in the scope of this work, intend to go into these

PARTURITION—*continued.*

minutely; the aid of the Veterinary Surgeon being called for in difficult cases.

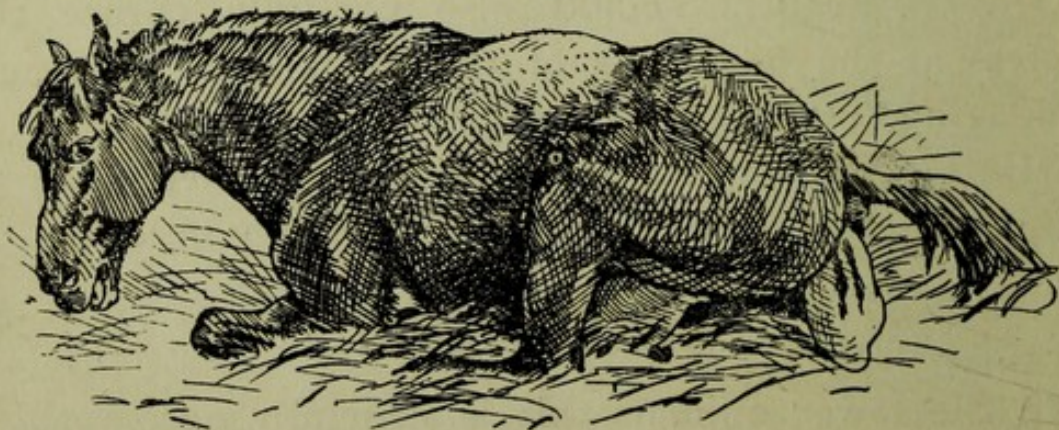
Treatment.—Prior to foaling, it is important to work the animal carefully, only for short distances, and with only light loads; ten days before foaling, give every other day, in a bran mash, a dose of "**Hewthorn's Blood Purifying Salt.**" If the bowels are inclined to be costive, give a dose of "**Hewthorn's Laxative Oil.**"



Approaching Delivery—Standing.

easy delivery sometimes made difficult.

Place the mare in a comfortable box; and unless something unforeseen happens, do not interfere: delivery being frequently delayed if the mare be disturbed, and what would be otherwise an easy delivery sometimes made difficult. Should the mare

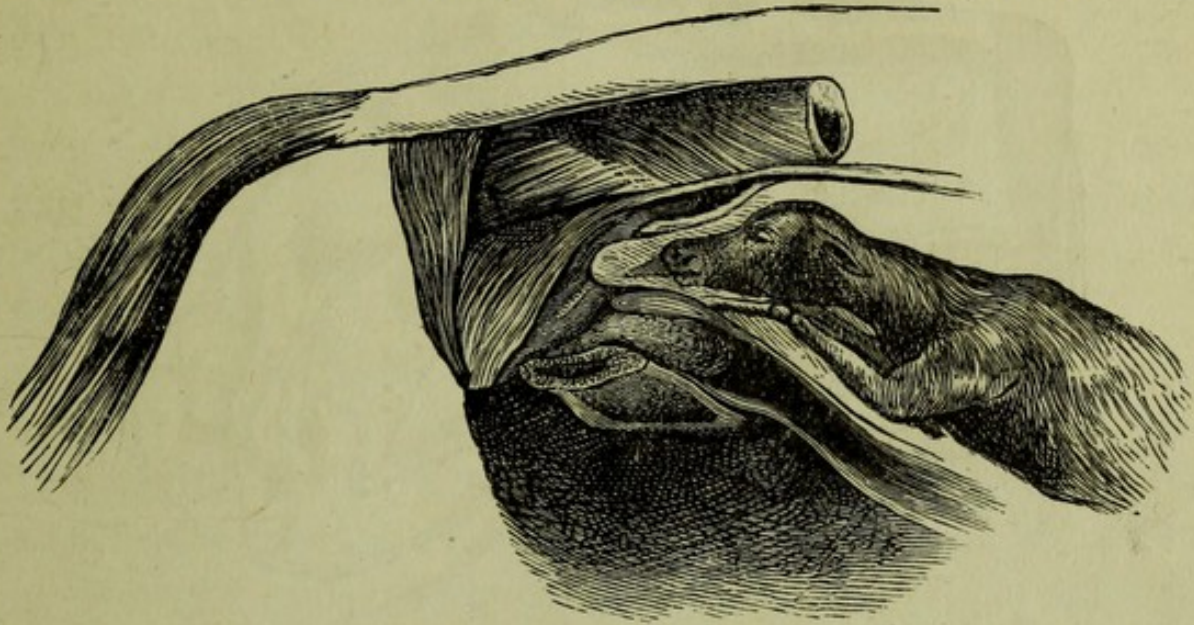


Approaching Delivery—Lying down.

show signs of pain during foaling, and breathe with difficulty, a half dose of "**Hewthorn's Sedative Extract,**" with the

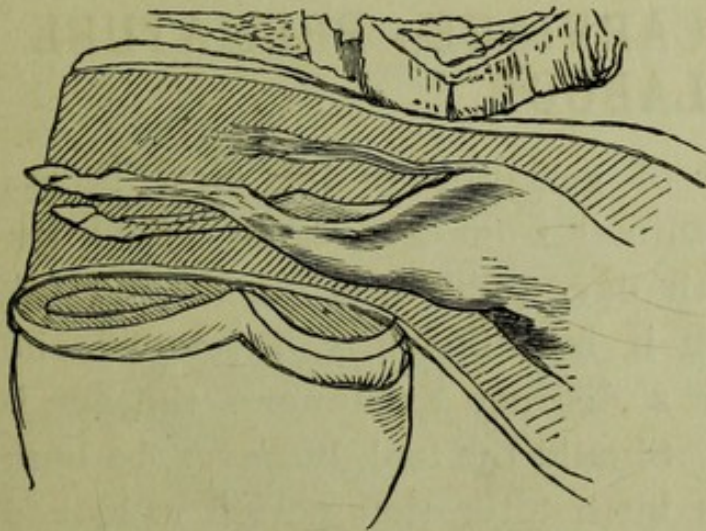
PARTURITION—*continued.*

same quantity of "**Hewthorn's Antifebrile Stimulant**," may be given in warm water, repeating in 3 or 4 hours.



Most favourable Form of Presentation.

After delivery, leave the mother to clean and nurse her foal; give shortly (say an hour or so) after the birth,



Backward Presentation.

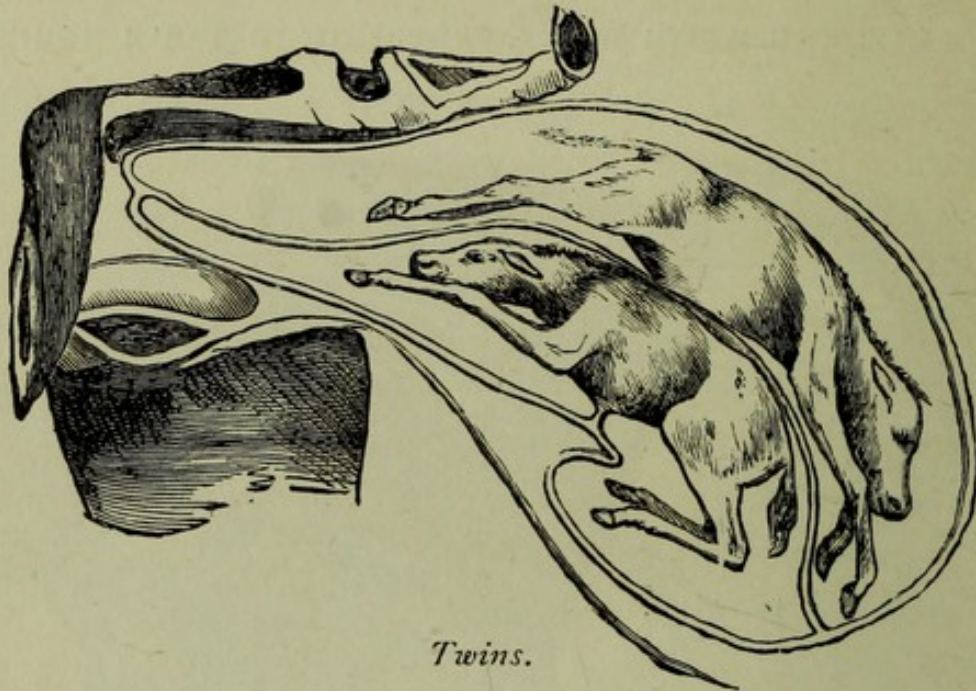
some oatmeal gruel or warm milk, and a couple of hours later on some scalded oats. Should the cleansing be delayed, or the animal appear fatigued, give one-third of a "**Hewthorn's Cordial Drink**" and a table-

spoonful of "**Hewthorn's Antifebrile Stimulant**" in warm ale or gruel 3 times a day. If straining after delivery is persistent, give a few doses of "**Hewthorn's Sedative Extract**" at intervals of two hours.

Disinfect the womb by injecting two tablespoonfuls of

PARTURITION—*continued.*

“Hewthorn's Lambing and Calving Oils” in an equal



Twins.

quantity of olive oil, and repeat daily for 2 or 3 days. Keep quiet, warm, and comfortably clothed.

ABORTION—MISCARRIAGE—PREMATURE LABOUR.

NOTE.—The period of gestation in the mare is 334 days, and should the animal from any cause expel the foetus *prior to* the 300th day, (which is considered the earliest period at which it is sufficiently developed and strong enough to bear a distinct existence), the act is called “a miscarriage.” Should the foal, however, be born *after* the 300th day, its birth after that period is looked upon as merely a “premature birth.” It is not our intention to go minutely into the various forms of abnormal presentation that may occur; as the dealing with these must lie in the hands of the veterinary surgeon, whom it is advisable to call in early should any unforeseen symptoms make their appearance to warn the mare's

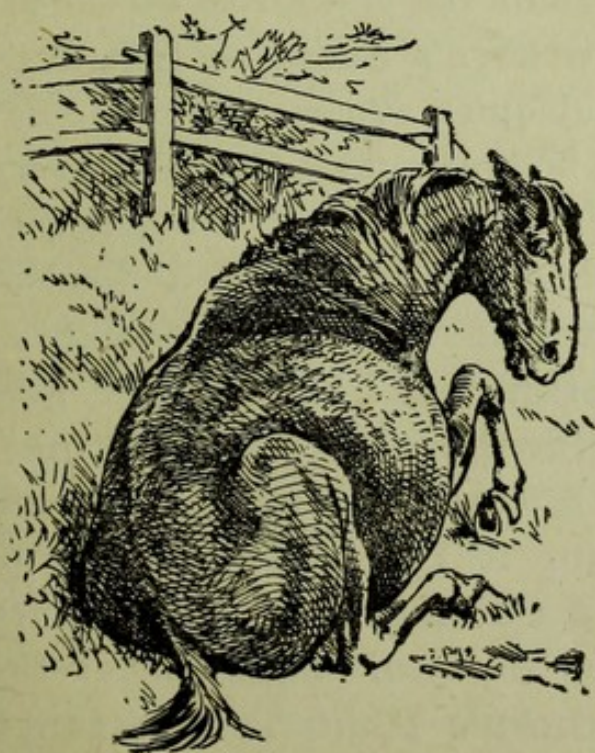
ABORTION, &c.—continued.

owner that something is amiss. We shall merely glance at a few of the more important and salient points to be noted when a mare is pregnant, and also point out a few general rules for guidance in an emergency.

As Precautionary Measures.—A week before foaling time, give half a “**Hewthorn’s Conditioning Powder**” daily in a bran mash. Work the animal very carefully for some time prior to foaling, and only load lightly.

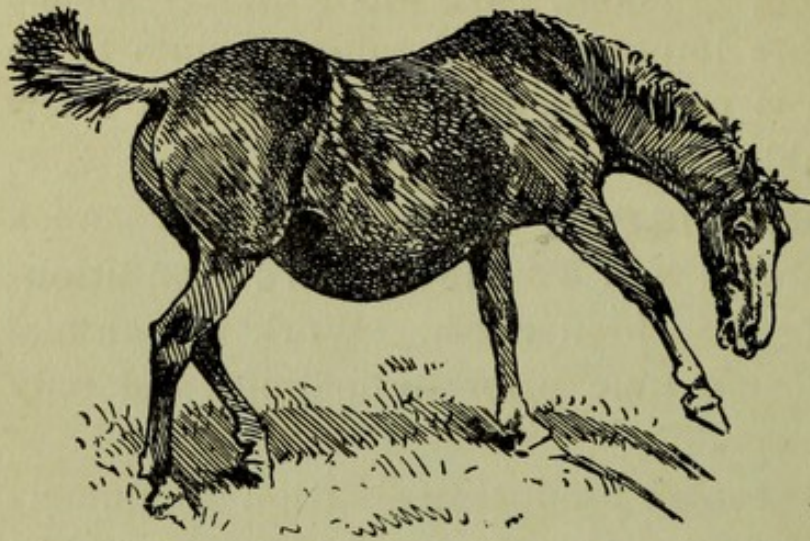
Causes.—The causes producing abortion are numerous and varied; and frequently remote and unaccountable. Indigestible and inferior food; exposure alternately to cold and heat; fright; over-driving, when nearing the period of foaling; the eating of poisonous plants; attacks of colic, influenza, colds, or other debilitating diseases; injuries by blows on the abdomen, &c., &c.

Symptoms.—The animal shows a restless and uneasy tendency; is dull, but continually on the move;



Signs of approaching Abortion.

exhibiting colicky pains, and scraping with the feet. The pulse and respirations are increased; the countenance expresses anxiety; and the nose is generally turned towards the flank. The animal lies down, and almost immediately rises again; and the tail is kept constantly in motion. The abdomen drops; the vulva becomes red and swollen;

ABORTION, &c.—*continued.**Signs of approaching Abortion.*

and a reddish discharge escapes from it. If the foetus is dead, the discharge soon becomes offensive. When associated with a malpresentation, expulsion of the foetus becomes extremely difficult, and no time ought to be lost in procuring veterinary aid; as the uterus soon loses its tone through the excessive efforts made to expel the foetus, and the mare quickly gets into an exhausted condition.

Treatment.—When the labour pains have set in and abortion is imminent, *isolate the mare from all others*, and give a half dose of “**Hewthorn’s Sedative Extract**” twice daily; keep the animal quiet and warm, in a comfortable box, and clothe the body if cold. Give only very easily digested food, and linseed and oatmeal gruel to drink. When the animal has aborted, give a dose of “**Hewthorn’s Sedative Extract**” with a tablespoonful of “**Hewthorn’s Antifebrile Stimulant**” added; and give two half-bottle doses of “**Hewthorn’s Cordial Drink**” daily, in gruel, if the animal is weak. Disinfect the womb by pouring or injecting into it two tablespoonfuls of “**Hewthorn’s Lambing and Calving Oils**” mixed with an equal quantity of olive oil or lard, and disinfect the box and stable with “**Hewthorn’s Fluid Disinfectant**” diluted with water.

ABORTION, &c.—continued.

In all cases where assistance is required to remove the foetus, anoint the hand and arm well with "**Hewthorn's Lambing and Calving Oils**" before passing it into the womb; and insert the hand in position shown in sketch. If much pain is present, give two or three more doses of "**Hewthorn's Sedative Extract**," at three-hour intervals. Remove the foetus and membranes at once, and bury them well out of the way; and have, and keep, everything thoroughly cleansed, to prevent other mares aborting also.

FLOODING.

Definition.—This is only occasionally seen in the mare. It consists of a large flow of blood from the womb, which is either caused by using force in extracting the foetus, or is due to the uterus not contracting properly when the membranes are severed from the surface of the womb. Inversion of the uterus is also a cause.

Symptoms.—Usually, frequent straining, and the evacuation of large quantities of semi-coagulated blood. Should these symptoms be absent (owing to the blood accumulating in the womb) the animal will soon show a weakening pulse; the mucus membranes become pale; there is great weakness; cold extremities; the animal's face wears a haggard expression; and convulsions and death may follow.

Treatment.—If any membranes are still adherent, remove them, and any clotted blood, with care; gently passing the arm, previously well oiled with "**Hewthorn's Lambing and Calving Oil**," well into the womb for

FLOODING—*continued.*

this purpose. Mix a bottleful of "**Hewthorn's Styptic Dressing**" with half-a-pint of cold water, and pour or inject the mixture slowly into the womb, allowing it to gradually escape after 10 minutes. Repeat in an hour, if bleeding continues. Injections of very cold water should be thrown up the womb after this, or ice placed on the loins and kept continuously applied. Give a half dose of "**Hewthorn's Antifebrile Stimulant**" combined with a half dose of "**Hewthorn's Sedative Extract**" in a pint of oatmeal gruel; repeating every three hours until the animal is relieved. Keep the animal comfortably clothed and quiet; let the diet be nutritious mashes, &c., given frequently and in small quantities. Disinfect all the surroundings with "**Hewthorn's Liquid Disinfectant**" diluted with water. Remove all the cleansings, &c., and have them buried at a distance.

INFLAMMATION OF THE VAGINA.

Definition.—This (an inflamed condition of the passage leading to the womb) is uncommon in the mare, and is usually due either to violence of the stallion when serving; to local violence; to difficult labor; or (in rare cases) to the inserting of a stick or other injurious substance into the vagina by some brutal, mischievous boy or man.

Treatment.—When the part is inflamed, soothe by bathing it with warm water; and inject one pint of linseed tea, in which two tablespoonfuls of "**Hewthorn's Lambing and Calving Oils**" have been mixed, twice daily. If the discharge is offensive, inject daily two tablespoonfuls of "**Hewthorn's Detergent Lotion**" mixed with a pint of warm water; and follow, when the foulness is cured, with the linseed tea and Healing Oil injection instead.

INFLAMMATION OF THE WOMB.

This condition is sometimes seen after parturition; and, owing to the insidious way in which it appears, the farmer frequently has difficulty in recognising the disease, as the mare, in many cases, appears in perfect health for two or three days after foaling, giving a plentiful supply of milk to its offspring.

Definition.—It may be generally defined as a septic or poisoned condition of the blood through inflammation of the womb itself, or from absorption of putrid matter by any abraded surface within the womb. Some authorities associate this disease with "*Puerperal Fever*" or "*Milk Fever*," and state that it is only a question of difference in the intensity of the disease.

Symptoms.—The symptoms usually appear in from six hours to three days after the birth of the foal. The milk secretion is generally suspended; there is general lassitude; the animal ceases to feed; the pulse is small and hard, numbering from 90 to 100 per minute; the extremities are cold; the mouth is hot and dry; the udder is soft, small and flabby; and the mucus membranes become injected. The respirations are hurried and short; colicky pains set in; and the animal paws and scrapes the ground, and lies down, but quickly rises again. The vulva appears swollen, and a fluid flows from it; this may be of a yellowish colour, and thin at first; but, later on, it assumes a reddish-chocolate appearance, eventually becoming fœtid and offensive.

Treatment.—This should be immediately and vigorously taken in hand, as delay frequently means death. The bowels should be operated upon at once, by giving "**Hewthorn's Laxative Oil**," or one of "**Hewthorn's**

INFLAMMATION OF THE WOMB—*continued.*

Purgative Balls. Give full doses of "**Hewthorn's Antifebrile Stimulant**" (alternately with doses of "**Hewthorn's Sedative Extract**," if there is much pain) every three hours in gruel. The vagina must be washed out three times a day with "**Hewthorn's Detergent Lotion**" and warm water; after which inject two table-spoonfuls of "**Hewthorn's Lambing and Calving Oils**." Nutritious food and comfortable quarters (isolated from all other animals) combined with the remedies named above, will generally effect a complete cure.

INVERSION OF THE UTERUS.

Definition.—This condition may be partial or complete. In the partial form, only a portion of the uterus protrudes from the vagina; in the complete form the entire organ is expelled, and hangs like a red bag.

Causes and Symptoms.—Excessive straining during parturition. The organ appears as a large red or violet coloured mass, gorged with blood.

Treatment.—Bathe and clean the organ freely with warm water; and, if much swollen and gorged, puncture in several places with a sharp lancet to the depth of one-eighth of an inch, so as to induce bleeding. When sufficient blood has been allowed to escape, apply cold fomentations, and then commence to return the organ to its proper place by gentle pressure on the neck, and continue until it is completely returned. Give immediately a dose of "**Hewthorn's Sedative Extract**," in a pint of

INVERTION OF THE UTERUS—*continued.*

warm water or gruel ; repeating in three hours. Raise the animal's hind quarters, and apply a truss to keep the womb in its place. (See illustrations on "Inversion of the womb" in cows.) Inject two tablespoonfuls of "**Hewthorn's Lambing and Calving Oils**," combined with an equal quantity of olive oil, into the womb. Keep the animal comfortable, and give good nourishing gruels, with a half dose daily of "**Hewthorn's Conditioning Powder**" stirred in, until all danger has passed and health is restored.

"WHITES" OR LEUCORRHŒA.

Definition.—A discharge of thin white mucus fluid from the vagina.

Causes.—It is generally associated with a debilitated condition of the system, or neglected inflammation of the vagina.

Symptoms.—A white mucus discharge from the vagina, which may flow regularly or intermittently, appearing principally when the animal urinates or moves about.

Treatment.—Give half doses of "**Hewthorn's Cordial Drink**" twice daily for a week in warm gruel. Wash out the vagina with warm water daily. Make a mixture of two or three tablespoonfuls of "**Hewthorn's Detergent Lotion**" added to a pint of tepid water, and with this syringe the Vagina out twice every day. If a syringe is not available, fill a long-necked quart bottle with the Mixture introduce the neck into the Vagina, and pour the contents slowly into the organ, and after 2 or 3 minutes

WHITES—*continued.*

allow the fluid to escape. Give good nourishing food, and bran mashes morning and evening, in which, place a dose of "**Hewthorn's Conditioning Powder.**" Keep in comfortable quarters, and give moderate exercise only, till well.

**PARTURIENT APOPLEXY—METRITIS—
INFLAMMATION OF THE WOMB—
MILK FEVER.**

Definition.—In giving birth to the foetus, the womb and surrounding tissues are liable to sustain injuries, which often cause inflammation accompanied by marked brain excitement, congestion of the spinal cord, apoplexy, and in many cases, blood poisoning. Very often mere contact with men who have attended mares or cows in bad cases of parturition, or the use of buildings carelessly cleared of, or purified of, the traces of parturition, will cause this disease.

Causes.—Injury, or contact as above mentioned; retained after-birth; exposure to colds and chills, &c.

Symptoms.—In the mare the symptoms may not appear for several days, and if so delayed the chances are that the attack will be mild in character, and generally amenable to treatment. In two or three days the temperature rises, the external genital organs become swollen and inflamed; cold sweats appear, and the animal has shivering attacks; the pulse is small and hard, and increases to from 90 to 100 per minute; the appetite falls off; the secretion of milk is lessened, and the udder becomes flabby, and the mouth hot and parched; colicky pains supervene; the animal becomes restless, kicks at its abdomen, whisks the tail, and looks towards the flank. The vulva becomes swollen, and a thin, yellow discharge issues from it, which gradually becomes thicker and

PARTURIENT APOPLEXY—*continued.*

darker in colour, and is sometimes mixed with streaks of bloody matter. The internal membranes are hot and tender. In four or five days convulsions may appear or coma may occur, ending probably about the sixth or seventh day in death.

Treatment.—This must be taken in hand actively and at once. Act upon the bowels by giving “**Hewthorn’s Laxative Oil,**” or one of “**Hewthorn’s Purging Drinks,**” and keep them well open. Give full doses of “**Hewthorn’s Antifebrile Stimulant**” three or four times daily. The vagina must be syringed and well washed out with “**Hewthorn’s Detergent Lotion**” and water, three or four times daily. **Hewthorn’s Lambing and Calving Oils**” may also be injected at night, with equal quantities of olive oil. The animal must be housed in a comfortable loose box, warmly clothed and bandaged, and *carefully isolated from all others.* Later on, when the worst symptoms have subsided, a daily dose of “**Hewthorn’s Antifebrile Stimulant**” may be given, and one of “**Hewthorn’s Tonic Balls**” twice or thrice a week with beneficial results. To prevent relapse, work the animal very carefully; and continue the tonics, in the shape of a daily half dose of “**Hewthorn’s Cordial Drink**” at night, and **Hewthorn’s Conditioning Powders**” daily in the food.

SEVENTH SECTION.

GENERAL BLOOD DISEASES.

- (1) DROPSY—ASCITES.
- (2) ERYSIPELAS—ST. ANTHONY'S FIRE.
- (3) RHEUMATISM.
- (4) SPOTTED FEVER—CHARBON IN THE HORSE—PURPURA HEMORRHAGICA.
- (5) STRANGLES—COLT DISTEMPER.
- (6) BASTARD STRANGLES.

DROPSY—ASCITES.

Definition.—An accumulation of fluid in the abdomen or other portions of the body (*e.g.*), the sheath, the legs, &c.

Causes.—Injury to the covering of the bowels, producing inflammation (peritonitis); disease of heart or liver. Poor keep for a lengthened time, on wet pasture land.

Symptoms.—The horse becomes “pot bellied,” and the belly gives a dull sound on rapping. The animal generally looks poor; the bowels are irregular, the pulse feeble, and as the accumulation of fluid increases, the breathing becomes difficult.

Treatment.—When the complaint is due to organic disease of the heart or liver there is little hope of recovery. If merely due to bad food, &c.; remove the animal to better quarters, give plenty of good nourishment, and administer “**Hewthorn's Blood Purifying Salt**” twice daily. If the accumulation of fluid is large, and it does not appear to lessen; puncture the most dependent

ERYSIPELAS—*continued.*

portion with a trocar, and draw the fluid off. Repeat this, if necessary, and support the abdomen by bandaging. "**Hewthorn's Diuretic Balls,**" one daily, should be given for two or three weeks.

ERYSIPELAS.

Definition.—An inflammation and swelling of the skin arising from poisoned blood, and having a tendency to spread and form other swellings.

Causes.—In horses and cattle it is generally due to injuries or wounds, the subjects generally attacked being weak, emaciated, and badly fed and over-worked animals.

Symptoms.—The skin of the injured part, after three or four days, shows little smooth, hard, hot, tender, painful swellings; and when pressed with the finger, a pit or depression is noticeable. Blisters on, and abscesses beneath, the skin are also frequent. There is fever, thirst, loss of appetite; lameness, if a limb be affected; constipation, and scanty and high coloured urine.

Treatment.—Give warm soap and water injections at once, and also a "**Hewthorn's Purging Drink,**" or one of "**Hewthorn's Purgative Balls.**" "**Hewthorn's Antifebrile Stimulant**" must be given every six hours until the fever is allayed; and a "**Hewthorn's Tonic Ball**" daily as well to keep up the strength. Frequently foment the affected parts with warm water, putting on warm bandages the moment fomentation is over, and taking great care to avoid chill to the surfaces affected. Apply "**Hewthorn's Cooling Lotion**" to the parts after each fomentation. Give good nourishing food and keep the system in tone by using "**Hewthorn's Conditioning Powder,**" morning and evening, in a mash.

RHEUMATISM.

Definition.—Inflammation and consequent stiffness of the muscles, joints, tendons or ligaments, owing to the blood being disordered. The inflammation has sometimes a tendency to shift from one part to another.

Causes.—Exposure to cold and damp. It frequently follows catarrhs, influenza, colds, &c. It may also be hereditary.

Symptoms. — (1.) *Acute Rheumatism.* — Sudden lameness, with or without swelling; fever, quick pulse, hot skin, thirst; and, frequently, profuse sweating. Bad appetite; irregular bowels, usually confined; scanty and high coloured urine; lameness, which quickly passes from one joint to another, and back again. Rheumatism of the back, is called “lumbago;” of the neck, “the cords;” of the covering of the heart, “pericarditis;” of the joints, “felon” or “joint ill.” In “felon” the joints swell, and are tender to the touch, and the swellings are slow to pass away.

(2.) *Chronic Rheumatism* does not move from one part to another, but generally attacks a joint or joints. It often leads to serious structural changes, and increase of the bony deposit in and around the joint, and sometimes to ulceration.

Treatment.—Place the animal in a warm comfortable loose box, and if the disease is serious, support the animal by slinging. Give “**Hewthorn's Antifebrile Stimulant**” twice daily, and mix one of “**Hewthorn's Fever Drinks**” morning and evening, for a week in the drinking water. Gently rub the swollen parts with “**Hewthorn's Matchless Embrocation**,” repeating every day for a week. If the bowels are constipated, give a “**Hewthorn's Purgative Ball**” if a horse; or “**Hewthorn's Yellow Purgative Drench**” and “**Hewthorn's Felon Drenches**” in cases of cattle; and repeat weekly if necessary.

RHEUMATISM—*continued.*

In the *Chronic Form*, "**Hewthorn's Matchless Embrocation**" is to be applied frequently, and if an obstinate case, use "**Hewthorn's Liquid Blister**," repeating in a week. Clothe the animal well, and keep in a comfortable stable. A course of "**Hewthorn's Alterative Balls**," or "**Hewthorn's Blood Purifying Salt**" should be given for five or six weeks after convalescence.

SPOTTED FEVER
—**PURPURA HEMORRHAGICA.**

Definition.—A malignant fever, arising from blood-poisoning, and showing itself by swellings on various parts of the body, and by red or purple coloured spots on the mucus membrane of the nostrils, which ultimately ulcerate.

Causes.—Debilitated condition of the system, owing to age, weakness, &c., or following some exhausting disease, as influenza, pneumonia, catarrhal fever, &c., and associated often with bad ventilation and imperfect drainage and sanitation. These unhealthy conditions cause an absorption into the system of the products of decomposition, and lead to poverty and fluidity of the blood, causing it to soften the vein walls, and thus to permeate the actual tissues. This causes large swellings and the dark spots distinctive of the disease.

Symptoms.—Great weakness, and the above-mentioned dark spots on the mucus membrane of the nostrils, mouth, and tongue; dark blood may also permeate and even ooze from the parts. There are large peculiar hard painful swellings which appear to terminate suddenly, as if a cord had been tied round the part. Small vesicles form, which subsequently burst, with disagreeable foetid fluid.

SPOTTED FEVER—*continued.*

The bowels may be constipated, but more frequently diarrhœa is present. Colic is also a frequent symptom, and dark strong smelling urine. The symptoms appear and disappear intermittently; one day the animal is apparently almost well, and the next is attacked more acutely than before.

Treatment.—Remove the animal to a nice comfortable loose box, well ventilated and drained. If the bowels are constipated, they must be relieved by injections of warm water and soap, adding a little oil. Give one of "**Hewthorn's Fever Drinks**" three times in twenty-four hours, and continue for several days. Two-dram doses of CHLORATE OF POTASH may be placed in the drinking water: (Professor Williams states this is very efficacious). Bathe the swellings with "**Hewthorn's Cooling Lotion**" two or three times daily, and if the swellings are very large, lance them freely. Recovery is always very slow, so that a course of "**Hewthorn's Tonic Powders**" ought to be given, and a "**Hewthorn's Cordial Drink**" two or three times a week. Give good nourishing food in small quantities at a time, varying it if the animal is disinclined to feed.

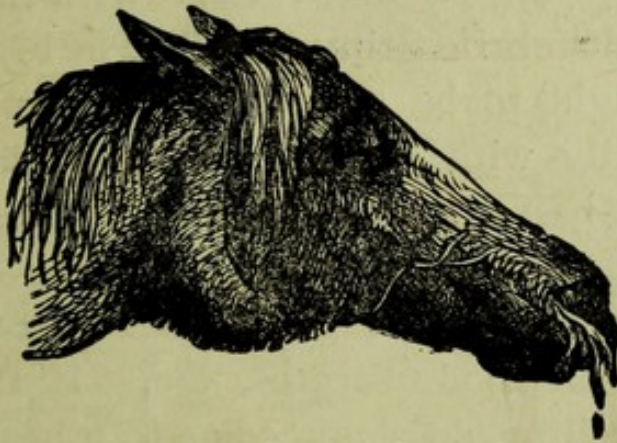
STRANGLES—COLT DISTEMPER.

Definition.—A disease generally affecting young horses, in which there is fever, accompanied by swelling of the glands between the jaws, which generally ripen and burst.

Causes.—These are unknown, but it may affect animals from one year to six years old. In older animals it is called "bastard strangles."

STRANGLES—*continued.*

Symptoms.—The animal has at first what appears to be a common cold. He is dull, has a cough and sore throat, and swallows with difficulty. There is feverishness ;



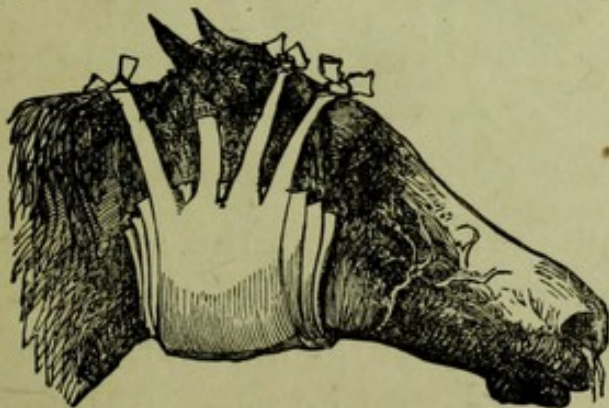
Ordinary Case of Strangles.



Bad Case of Strangles.

discharge from the nose ; quickened pulse, and hurried breathing. A hot tender swelling under the jaws soon appears. These symptoms are generally preceded by the animal being unthrifty, and off his food, and losing flesh.

Treatment.—When the attack is mild in character, place the animal in a well ventilated loose box, give a



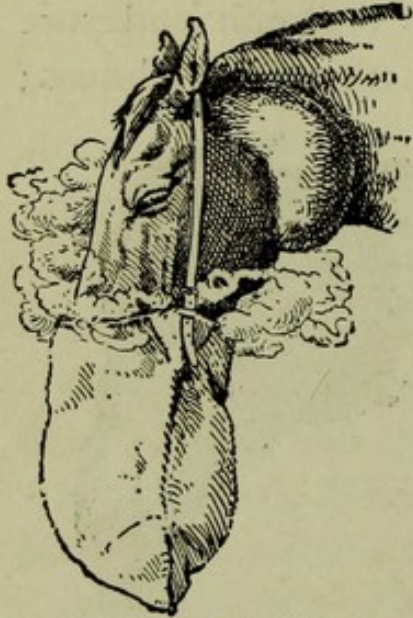
Poultice and Eight-tailed Bandage for Strangles.

“Hewthorn’s Alterative Ball” daily, and give “Hewthorn’s Cough Linctus” several times a day. Apply a poultice to the throat, or foment the glands with hot water two or three times daily for half an hour, and rub the glands

and throat with “Hewthorn’s Matchless Embrocation”

STRANGLES—*continued.*

for ten or fifteen minutes. Keep the bowels open with



Steaming the Head.

enemas, and an occasional dose of "**Hewthorn's Laxative Oil**," if necessary; and give a half dose morning and night of "**Hewthorn's Antifebrile Stimulant**." The head ought to be steamed three times daily with scalded bran and hay, for half an hour each time (*see plate*). The diet should consist of bran or linseed mashes, chopped carrots, green food, turnips, &c. If the swelling does not come to a head,

"**Hewthorn's Liquid Blister**" should be applied with considerable friction.

When the swelling is ripe, it may be lanced, and the wound kept open for three or four days, with a plug of clean tow saturated in "**Hewthorn's Healing Oils**;" changing the tow twice daily,



Opening the Abscess in Strangles.

to allow the matter to escape. If, through the swelling being very great, there is danger of strangling, the wind-pipe must be opened by a veterinary surgeon. When the animal is getting better, give half-bottle doses of "**Hewthorn's Cordial Drink**" in oatmeal gruel nightly for a week; a "**Hewthorn's Tonic Ball**" in the morning, and

STRANGLES—*continued.*

“**Hewthorn’s Conditioning Powder,**” as directed, for three or four weeks, until the cure is complete and health quite restored.

BASTARD STRANGLES. (*See also Strangles.*)

Definition.—A greatly aggravated condition of ordinary Strangles, assuming a low typhoid type. There is great exhaustion, and abscesses form, not only in the throat, but also in different parts of the body; which may or may not burst; and cause great prostration; and, not unfrequently, death.

Treatment.—In this form of the disease very great care must be taken of the animal. Keep warm; give good, very easily digested food, and steam the head frequently. If the bowels are constipated, give enemas of warm soapy water mixed with oil. Blister the abscesses with “**Hewthorn’s Liquid Blister,**” opening them as they come to a head; plug the wounds with tow saturated in “**Hewthorn’s Healing Oils,**” renewing two or three times daily. If the discharge is plentiful, bathe the part with warm water before applying the **Healing Oils.** Give “**Hewthorn’s Antifebrile Stimulant**” twice daily, and “**Hewthorn’s Blood Purifying Salt**” in the food, morning and evening, continuing for a fortnight or three weeks. The diet should consist of boiled oats, carrots, a few potatoes, mashes of bran and chaff, and nice old hay. Do not put the animal to work for some time after recovery, and when it is getting better treat as directed in recovery from “**Strangles.**”

EIGHTH SECTION.

DISEASES OF THE FOOT OF THE HORSE.

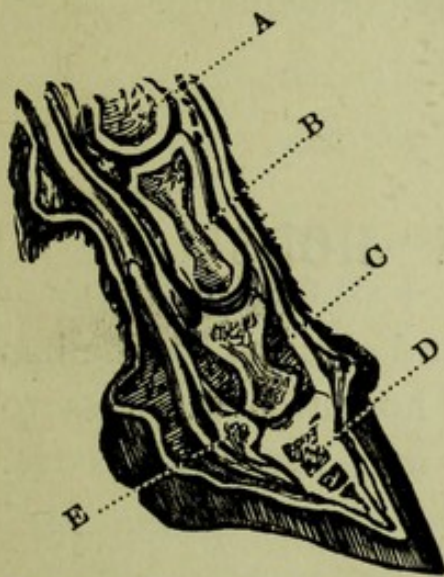
- (1) STRUCTURE OF THE FOOT OF THE HORSE.
 - (2) LAMENESS IN THE HORSE—
HOW TO DETECT LAMENESS—
CLASSIFICATION OF THE SYMPTOMS OF LAMENESS
AND THEIR SIGNIFICANCE.
 - (3) FEVER, OR INFLAMMATION IN THE FEET—LAMINITIS
—FOUNDER.
 - (4) MUD FEVER—CRACKED HEELS—ERYTHEMA OF THE
HEELS.
 - (5) THRUSH.
 - (6) CANKER.
 - (7) QUITTOR—FISTULA OF THE CORONET.
 - (8) SANDCRACK.
 - (9) FALSE QUARTER.
 - (10) PUNCTURED WOUNDS OF THE FEET—PRICKS—
GATHERED NAILS.
 - (11) SEEDY TOE.
 - (12) PUMICE FOOT.
 - (13) SHELLY OR BRITTLE FEET.
 - (14) NAVICULAR DISEASE—GROGGINESS—
CONTRACTION OF THE FOOT.
-

In order to render the above subjects clearer, we shall give first a brief description of the

STRUCTURE OF THE FOOT OF THE HORSE.

STRUCTURE OF THE FOOT OF THE HORSE.

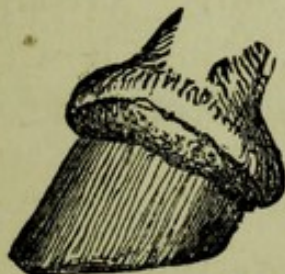
On studying a longitudinal section of the foot of the horse from toe to heel (as shown in the illustration) it will be seen to be made up of five distinct bones. Beginning



1. *The natural relative position of the five bones of a horse's foot when in a healthy state.*

from the top, there is the terminal end of the cannon bone (A); next in order, the coronary bone, (B); next comes the os-suffraginis, (C); then the coffin bone, (D), (os pedis); and finally, situated midway *behind* the lower half of the os-suffraginis and the upper half of the coffin bone, is the navicular bone, (E); a small bone which frequently becomes diseased, through injury or inflammation of surrounding tissues, and thus leads to what is termed "grogginess." These bones

and their surrounding textures (see plates below) are enclosed in the horny box of the outer hoof, which protects them.



Sensitive Lamina and Coronet.



Sensitive Sole, Frog and Bars.

THE HOOF DIVESTED OF ITS HORNY COVERING.

This box is composed of two portions, the *wall* and the *sole*. The wall is divided into the *toe*; the heel, the

STRUCTURE OF THE FOOT—continued.

quarters, inside and out, the upper, or *coronary* border ; the lower, or *solar* border ; and the *bars*, which are seen on the ground surface of the foot.

Where these structures are altered in their natural relations to each other, lameness is the consequence.

LAMENESS IN THE HORSE.

This is very difficult to detect, and even when one has detected it, he is more often than not still at a loss to fix upon its cause with certainty and suggest a cure. However, we give a few hints as to

HOW TO DETECT LAMENESS.

The horse must first be examined at rest ; and secondly, in motion.

When at rest the animal generally “favours” the unsound limb, by pointing it, or lifting it frequently from the ground. If both feet are affected he will lift first one and then the other.

If the lameness is in the elbow, the knee will be flexed, the fore arm extended, and the foot placed on a level with, or behind its fellow. In shoulder lameness, the foot will be behind its fellow. If a hind limb be affected there is “knuckling over” at the fetlock, or the foot may be held off the ground entirely. If the

HOW TO DETECT LAMENESS—*continued.*

lame leg is kept in advance of the sound one, this points to the disease being below, or in, the hock.

If both fore feet are affected, the hind ones will be drawn well under the body, to bear as much weight off the fore legs as possible; and, *vice versa*, if the hind legs are affected, the fore feet will be placed well back, and the body thrown forward.

Having examined the animal when standing, next examine him while in motion, and, if pain and tenderness be shown, the spot affected can generally be located.

Let an assistant run the animal gently, with a loose rein, both towards and from you. If the animal is lame on the off *fore* leg in going from you, the *near* hip will droop, and on coming towards you you will be able to detect the limp, and consequently the affected limb. If both fore or hind feet are affected, there will be a peculiar "shortness" of gait, and "stilty" action. Sometimes it is advisable to trot or gallop the horse, and then allow half an hour's rest; after which trot again, the lameness, if occult (*i.e.* hidden in the ordinary way), will then generally show itself. In all cases of lameness it is always desirable to remove the shoe or shoes and examine the feet carefully, as many cases of lameness have their origin in the feet.

CLASSIFICATION OF THE SYMPTOMS OF LAMENESS, AND THEIR SIGNIFICANCE.

First, at Rest, and second, in Motion.

(N.B.—“Pointing” *may* be only a habit; but in that case one hind and one fore will *both* point; but if it be due to lameness one limb *only* will point.)

Symptoms of Lameness when at Rest.

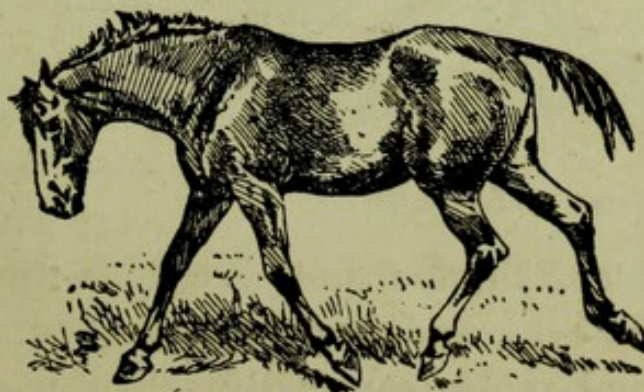
<i>The Symptoms.</i>	<i>Their Meaning.</i>
Fore foot pointing, and held in front of its fellow.	} Lameness of the leg.
The fore arm extended, knee bent, the foot about in line with the other.	} Lameness of the elbow.
The whole limb relaxed, knee bent, and the foot held behind the other.	} Shoulder lameness.
The hind foot bent, “knuckled over,” or off the ground.	} Lameness of hind foot.
The hind leg held in front of the other.	} Lameness in or below the hock.
Both hind feet placed well forward under the belly; head held high.	} Lameness in both fore feet.
Both fore feet drawn back under the chest, and the head held down.	} Lameness in both hind feet.

Symptoms of Lameness when in Motion.

<i>The Symptoms.</i>	<i>Their Meaning.</i>
Bobbing or nodding the head.	} Lameness in fore quarters.

LAMENESS—*continued.*

- Dipping or drooping the croup. } Lameness in hind quarters.
- The foot lifted straight up, quickly. } Lameness of foot or hock.
- The foot is swung in a half circle, not lifted much; or sometimes dragged. } Elbow or shoulder lameness.
- The foot brought down on the toe first. } Shoulder lameness, hip joint lameness, navicular disease, side-bone, sprain of suspensory ligament, or sprain of back sinews.
- The foot brought down on the heel first. } Ring bone, sand crack, stifle joint lameness, seedy toe, founder, inflammation of carpus, or os pedis.
- Little or no lameness showing at first, but increasing with motion. } Side bones, splints, disease of knee joint, sore shins.
- More or less lameness at first, but diminished on motion. } Weed, rheumatism, corns, navicular disease, or grogginess.
- Little, or no lameness when trotting straight, but noticeable when turning sharply. } Strained back, stringhalt, shivering.



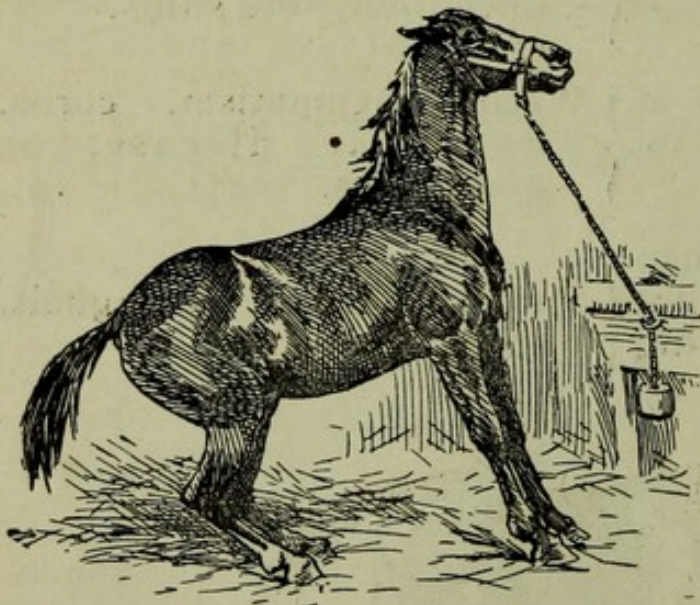
Symptoms of Shoulder Lameness—Dragging the Limb.

LAMINITIS—FOUNDER— FEVER, or INFLAMMATION IN THE FEET.

Definition.—An inflammation of the internal structures of the foot; with, in some cases, exudation into the horny box.

Causes.—These are numerous; and this disease is one of the most common causes of lameness. Concussion, through travelling on hard ground; over-exertion, from galloping; bad shoeing; excessive feeding; drinking too much cold water when heated; standing on ship board or on long railway journeys, will all cause it; or it may be due to inflammation already existing in another portion of the body.

Symptoms.—The inflammation is usually confined to one or both fore feet, but all four feet are sometimes



Symptoms of Laminitis.

attacked. If the fore feet only are affected, the animal stands with hind legs drawn up under the belly in an effort to support his whole weight on them; and with his fore feet advanced so as to relieve them of pressure. When the case is acute there is very great pain. The

animal trembles, shivers and sweats, with anxious expression of the eyes, and nostrils distended. The pulse is full, strong, and rapid (especially at the pastern). There is the greatest reluctance to move; and if pushed back-

LAMINITIS—*continued.*

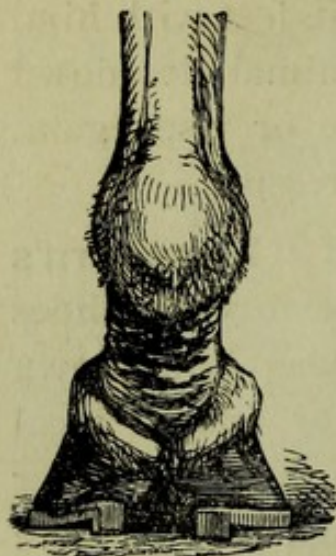
wards, the animal will actually draw the fore feet with him, resting the heels on the ground. If the animal lies down he seems relieved, and is loathe to move or rise again. The hoofs are hot and pain is evinced on pressure.

Treatment.—Give at once one of “**Hewthorn’s Purging Drinks, or Purging Balls.**” Remove the shoes immediately—sling the animal if he won’t keep lying down—and apply large warm poultices of bran or linseed meal to the affected feet, changing frequently, so that they never get cold. Give at once a dose of “**Hewthorn’s Antifebrile Stimulant,**” and repeat thrice daily until fever abates. A dose morning and evening of “**Hewthorn’s Blood Purifying Salt**” should also be given. A dose of “**Hewthorn’s Laxative Oil**” may be administered, and an enema if necessary. Keep the animal either lying down, hobbled—(turning him over several times daily), or place him in slings, and persevere with the hot poultices, &c., till relief is obtained. Dress the feet with “**Hewthorn’s Hoof Ointment**” morning and night. Give moderate diet of mashes, with plenty of oatmeal gruel, and “**Hewthorn’s Conditioning Powder**” in each feed, until well.

**MUD FEVER—ERYTHEMA—
CRACKED HEELS.**

Definition.—A dry, cracked, scaly condition of the skin of the feet and heels in horses. It is looked upon as a chronic erythema.

Causes.—Undue exposure to wet, mud, snow, &c.; (especially after clipping the hair too short about the heels,) or to general dirt and bad grooming. It is generally seen most during a wet, muddy season.

CRACKED HEELS—*continued.**A Cracked Heel.*

Symptoms.—Slight lameness on starting work; the heels are scaly, dry, cracked, tender and swollen.

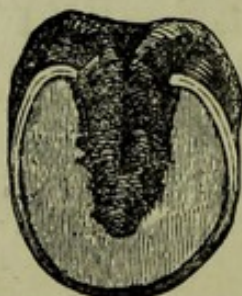
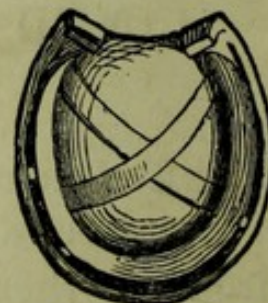
Treatment.—Groom carefully, and when the legs are washed, dry them thoroughly. Apply "**Hewthorn's Cooling Lotion**," twice daily, and dress with "**Hewthorn's Hoof Ointment**," and bandage the legs. If the animal is in poor condition, give daily "**Hewthorn's Blood Purifying Salt**" in nourishing mashes. If inflammation is present, reduce it by poulticing.

THRUSH.

Definition.—A diseased condition of the frog, with foul, dark and foetid secretions from the cleft.

Causes.—Standing on wet land, filth, stable manure, &c., which gives rise to irritation and disease. Bad shoeing, *i.e.*—so shoeing that the frog does not touch the ground—or paring the frog before shoeing, also tends to cause it.

Symptoms.—Foul dirty discharge from the cleft of the frog, which is tender; and slight lameness.

*Thrush in Fore Foot.**Thrush in Hind Foot.**Foot dressed for Thrush.*

Treatment.—Rest the animal, and remove the shoes. Keep in a clean stable, well littered. Clean the frog thoroughly, removing all ragged portions; and, after doing

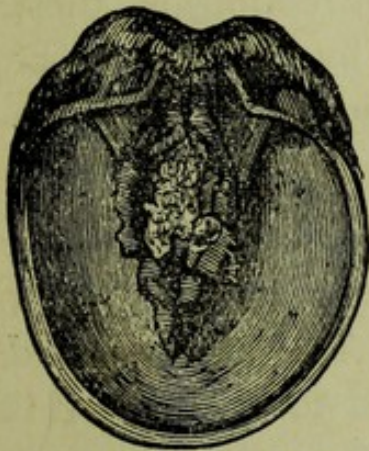
THRUSH—*continued.*

so, saturate a quantity of tow in "**Hewthorn's Anti-Parasitic Lotion**," and fix the saturated pad in the cleft of the frog (see plate); and repeat this treatment daily until cured. Dress the frog freely night and morning also with "**Hewthorn's Thrush Ointment**."

CANKER.

Definition.—A diseased condition of the frog and sensitive sole of the foot, causing unhealthy, fungoid horny growths, and a fœtid "cheesy" discharge.

Causes.—Often obscure. Usually some injury to the foot causes it, such as a nail prick; sometimes standing for a long time in filth, &c., will lead to it.



A Cankered Foot.

Symptoms.—Abundant offensive discharge from the frog; fungoid growths appear, forming spongy cheese-like masses. Canker is most frequently seen in cart horses with thick legs and large feet.

Treatment.—Remove all the loose horn thoroughly, and cut away any fungoid growths also; and bind or fix on (as shown in plate in "Thrush") a pad of tow soaked in a mixture of equal parts of "**Hewthorn's Foot Rot Dressing**" and "**Hewthorn's Anti-Parasitic Lotion**." The following day redress with the mixture; and continue to do so daily. Should the fungous growths and the bad smell still continue, apply the following wash: Chloride of Zinc, 40 grains, to 1 ounce of water. This should be syringed freely on the parts, and repeated every other day; continuing the former remedies meanwhile. When the Canker itself is cured, dress the sole with "**Hewthorn's Hoof Dressing**" to encourage good growth of new sound horn.

QUITTOR—FISTULA OF THE CORONET.

Definition.—Inflammation of the cartilage of the foot, with unhealthy discharge, and formation of “pipes,” channels, or sinuses at the quarters and heels of the coronet.

Causes.—Pricks or wounds in shoeing, treads, suppurating corns, &c.



Quittor—Before the Holes Appear.



Quittor—Discharging Pus.

Symptoms.—Lameness, with evidently swollen coronet; upon which, presently, holes discharging pus are found. These wounds are unhealthy, and they are the orifices of a number of fistulæ, or “pipes”; the surrounding tissue is hard, and the discharge from the fistulæ varies in consistency. The direction of these pipes is usually found by probing to be downward, leading to the foot.

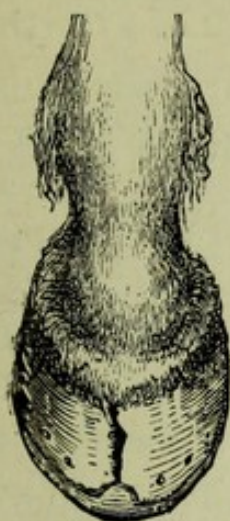
Treatment.—If heat, pain, and swelling are present, indicating an acute stage, poultice the foot for a few days, or foment it frequently. The shoe should be removed and every nail hole examined to ascertain if it be the cause; and if so, treat as directed in the Chapters on “Nails,” “Pricks,” &c. The fistulæ must, once a day, be injected with this injection: Carbolic Acid, 1 dram to 1 ounce of water. Give a tablespoonful of “**Hewthorn's Antifebrile Stimulant**” morning and evening, and one dose daily of “**Hewthorn's Blood Purifying Salt.**” Should this treatment fail, the pipes must be destroyed by “plugging,” or by using the hot irons (for which professional aid should be called in). The horse must not be worked, and good nourishing diet, with a course of “**Hewthorn's Tonic Balls**” given during the treatment.

SANDCRACK.

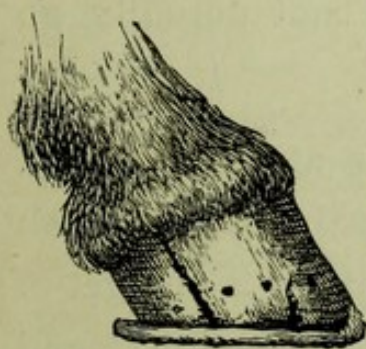
Definition.—A crack or split in the wall of the foot. It is usually seen in the toes of the hind, or in the inner quarters of the fore feet.

Causes.— Defective quality of the horny substance secreted by the coronary band; bad shoeing; over-reaching, &c.

Treatment.— Remove the shoe, cut the edges of the crack, and have the parts thoroughly washed free of any grit or dirt that may be present. Apply hot fomentations, after which poultice. If proud flesh appears, do not cauterize; but, after inflammation subsides, apply a bar shoe to take the pressure off the part where the crack shows.

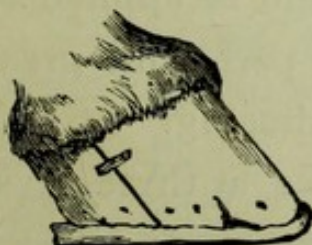


Toe Sandcrack.



Quarter Sandcrack.

The fissure may be brought together by binding the foot round with tar string; or one or two clasps may be fixed in the horny wall by the farrier; or even a clenched horse shoe nail will sometimes be sufficient. “**Hewthorn’s Hoof Dressing**” can be applied to the parts daily, smeared on tow, and bound round with tape or string; and “**Hewthorn’s Blister Ointment**” ought to



Clasp for closing Sandcrack.

be applied once or twice round the coronet, to stimulate new growth of horn. Give regular doses of “**Hewthorn’s Blood Purifying Salts**” during treatment.

FALSE QUARTER.

Definition.—This is either a deficiency of growth of the horn at one or both quarters of the foot, or is caused by the horny substance secreted being unhealthy.

Causes.—Injury or previous disease of the coronary band (such as Quittor, &c.) so altering its condition as to prevent it secreting healthy horn.

Symptoms.—These are always very apparent; the wall of the hoof being indented, and, sometimes, altogether wanting. This disease is always looked upon as an unsoundness, although the animal may not actually go lame.

Treatment.—If any wound exists at the coronet, bathe it with tepid water, and dress it with the caustic wash recommended for Canker; after which apply a pledget of tow saturated with "**Hewthorn's Hoof Dressing**," and bandage it round the part. If the animal is lame, and is

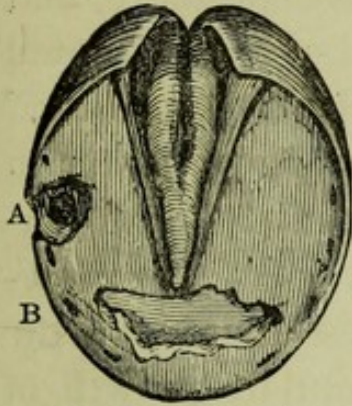


Shoe for False Quarter.

suffering pain, poultice for a time, and give complete rest. It is advisable to pare away the hoof. A bar shoe should be applied to take the pressure off the part, and great care should be used when shoeing. Stimulate the coronary band twice, at three days' interval, by gently rubbing it with "**Hewthorn's Liquid Blister**," and give "**Hewthorn's Conditioning Powders**" for two or three weeks.

PUNCTURED WOUNDS OF THE FEET— PRICKS—GATHERED NAILS.

Symptoms.—Sudden lameness, with intense pain, but without fever. If neglected, the injured foot will fester, and this may lead to disease in the bones, &c., of the foot, to sympathetic fever, and sometimes to lockjaw.



A—Prick of the Foot.

B—Bruise of the Sole.

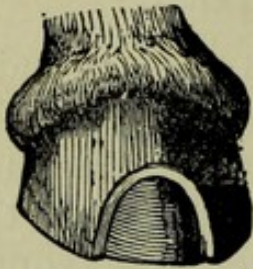
Treatment.—Remove the shoe gently, and have the foot bathed and pared until the cause is ascertained by the animal evincing pain when the hurt spot is pressed on. When this spot is found, pare it down carefully, sufficiently close to allow any pus that may have formed to escape. Then place the foot in a warm poultice of linseed or bran, and dress daily with a pad of tow soaked with "**Hewthorn's Hoof Ointment.**" If the wound is unhealthy, syringe it twice a day with a Carbolic Acid solution of one dram to an ounce of water. If the animal suffers much pain, a dose of "**Hewthorn's Sedative Extract**" is to be given morning and evening. When healing is well established, "**Hewthorn's Hoof Dressing**" will quickly cause growth of sound new horn.

SEEDY TOE.

Causes and Symptoms.—This is the result of acute Laminitis (or Founder), and consists in the secretion of unhealthy horny matter at the point of the toe, and the parting of the outer from the inner horn at the point of the hoof. The horn has a mealy consistency and is easily broken down; and its condition is liable to cause lameness through dirt and grease entering the interstices that it produces in the hoof wall.



Section, showing split hoof in Seedy Toe.

SEEDY TOE—*continued.*

*Hoof, after Seedy
Toe has been cut
away.*

Treatment.—Cut away all loose horn, but do not pare the sole or frog. Fit a bar shoe to relieve pressure, and bind over the part a pad of tow saturated with “**Hewthorn’s Hoof Dressing.**” The coronet should also be rubbed with “**Hewthorn’s Matchless Embrocation**” several times a week. “**Hewthorn’s Liquid Blister**” may also be applied to the coronet once in a fortnight to further stimulate growth of sound horn.

PUMICED FOOT.

This also is a condition arising from repeated attacks of Laminitis, or Founder.

Symptoms.—The hoof presents a series of furrowed, uneven, or wavy ridges running round it, parallel to the coronet, arising from imperfect formation of the horn.

Treatment.—It is an incurable complaint; but it can be relieved by fitting a bar shoe to the foot.

SHELLY or BRITTLE FEET.

This usually originates from the same causes as “Seedy Toe,” viz., Laminitis, and ought to be dealt with in the same manner. Careful shoeing, and daily applications of “**Hewthorn’s Hoof Dressing**” to the hoof, combined with the daily use of “**Hewthorn’s Matchless Embrocation**” to the coronet, and a weekly application of “**Hewthorn’s Liquid Blister,**” will tend to improve the

SHELLY or BRITTLE FEET—*continued.*

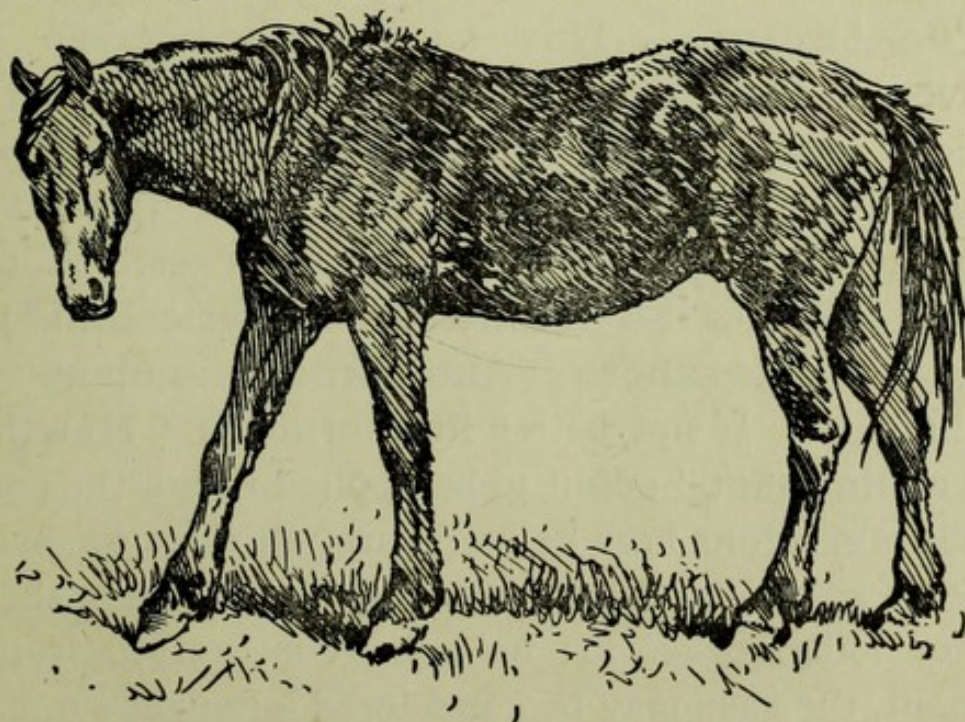
conditions and promote the quicker growth of healthy horn. Use wide flat shoes, put on with clips, and without calkins, and let no rasping be allowed. Give a course of "**Hewthorn's Conditioning Powders**" to improve the tone and general health.

NAVICULAR DISEASE—CONTRACTION OF THE FOOT, GROGGINESS.

Definition.—Inflammation of the navicular bone and adjacent tissues.

Causes.—Violent exercise; bruised frog; overstrain of various kinds; bad fitting shoes, &c. It is believed to be sometimes rheumatic in character.

Symptoms.—At first the animal begins to point the foot, resting first one and then the other. On moving,

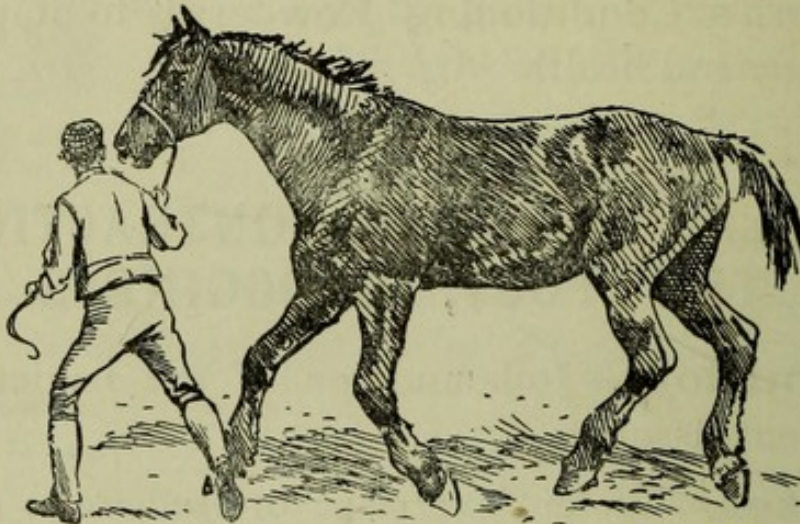


"Pointing" in Navicular Disease.

the animal goes in a short, stilty, groggy fashion; the heels begin to turn in, (the shoe being consequently worn

NAVICULAR DISEASES—*continued.*

away quickest at the toe); and the muscles of the shoulder begin to waste. The feet are generally very hot, dry,



A "Groggy" Horse Trotting.

and tender at some parts, and the animal stumbles frequently.

Treatment. — This must be undertaken early. Remove the shoes, and place the feet in a cold water bath, in which a packet of "**Hewthorn's Refrigerating Powder**" has been dissolved, for three or four hours daily; and when not in the bath keep on cold bran poultices. Allow no exercise; administer a "**Hewthorn's Physic Ball**"; after which give "**Hewthorn's Antifebrile Stimulant**" twice daily in gruel. If not better in a fortnight, "**Hewthorn's Blister Ointment**" ought to be applied round the coronet. This failing, setons may be used through the frog, smeared with "**Hewthorn's Blister Ointment,**" and kept there for three or four weeks. If no benefit is derived from this treatment, the case may be considered a hopeless one.

NINTH SECTION.

DISEASES OF THE LEG.

INFLAMMATION OF THE BONES.

- (1) INFLAMMATION OF THE HOCK JOINT—BOG SPAVIN—
BLOOD SPAVIN.
- (2) BONE SPAVIN.
- (3) CAPPED HOCK—CAPPED ELBOW—
CAPPED OR SWOLLEN KNEE.
- (4) RING BONES.
- (5) SIDE BONES.
- (6) SORE SHINS—
INFLAMMATION OF THE METACARPAL BONES.
- (7) SPLINTS OR SPLENTS.
- (8) THOROUGH-PIN.

**OSTITIS—INFLAMMATION OF THE BONES
—PERIOSTITIS.**

Horses are liable to both inflammation of the leg bones (Ostitis) and also of their covering (Periostitis), and lameness in various forms, according to the situation of the part affected, is the result. These are to be treated as explained in this Section.

INFLAMMATION OF THE HOCK JOINT— BLOOD SPAVIN—BOG SPAVIN.

Definition.—*Bog Spavin.* Inflammation of the structures of the hock joints.

Symptoms.—In the acute stage, a fluctuating swelling forms, hot and painful to the touch, and causing lameness. In the chronic state, the swelling tends to be more dropsical, and frequently does not cause lameness. *Blood Spavin* is a distention of one or more of the veins situated near the hock, caused through the swelling of



Bog Spavin.

the hock, impeding the circulation of the blood.

Treatment.—In the acute stage, support the horse in slings, so as to take all pressure off the joint. Reduce the inflammation of the hock by fomenting with hot water, and applying a hot water bandage round the hock; cover this with oil silk or sheet india rubber, and then cover this again with a long woollen bandage, and persevere until all inflammation has subsided. A "**Hewthorn's Purgative Ball**" is to be given at once, and two or three doses daily of "**Hewthorn's Sedative Extract**" in gruel, if the pain is great. Give one of "**Hewthorn's Swollen Leg Balls**" twice a week also, and as soon as the worst of the inflammation has subsided, rub in daily a small quantity of "**Hewthorn's Absorbent Liniment.**" An ounce of Saltpetre should be placed in the drinking water morning and evening. Give "**Hewthorn's Blood Purifying Salt**" daily for two or three weeks after the lameness is gone.

In the chronic form "**Hewthorn's Blistering Ointment**" should be tried; but where there are bony deposits it is almost impossible to remove them.

BONE SPAVIN.

Definition.—An enlargement of *the bone* on the inner side of the hock, through inflammation. It generally ends, if neglected, in two or more bones uniting, thus interfering with the proper free movement of the hock; and permanent lameness results.



Bone Spavin.



*Appearance of
Hock bones
with Spavin.*

Causes.—Sprains of ligaments, resulting from overloading or working; the use of high-heeled shoes, blows, &c. It is often hereditary.

Symptoms.—Sometimes spavins do not cause lameness; those situated well back being the least likely to interfere with the action of the joint. In young horses, they may appear and disappear; but in those past their prime they become permanent. There is always a stiffness in a spavined horse's gait, and the animal wears away the toes of his shoes quickly; owing to his dragging gait. On starting, the animal is very stiff, but he improves somewhat after exercise.

Treatment.—The treatment for recent cases is the same as recommended for "Splints" (see page 103).

CAPPED HOCK.

Definition.—A swelling on and around the cap of the hock (os calcis).



Capped Hock.

Causes.—Generally caused through striking the hock, in kicking, against some hard substance.

Treatment.—Bathe with cold water for some time, and then apply "**Hewthorn's Matchless Embrocation**" every day for four or five days. "**Hewthorn's Black Healing Oils**" may then be applied every second or third day for a fortnight, meanwhile applying cold fomentations frequently. If it prove an obstinate case "**Hewthorn's Liquid Blister**" must be used once or twice.

CAPPED ELBOW.



Capped Elbow.

This is a tumour at the back of the elbow point and is most frequently seen in heavy draught horses, although not uncommon in vanners and light horses. The immediate causes is pressure, arising from the animal lying in an awkward way, which causes the calkins of the shoes on the fore feet, especially if they are long, to press on the elbow.

Treatment.—This consists either in the removal of the tumour with the knife and afterwards treating the place as a wound (see Wounds) till cured; or in putting a seton smeared with "**Hewthorn's Blister Ointment**" through the tumour. The calkins of the shoes ought to be shortened, and when the animal is resting a pad must be fastened round the hoofs.

CAPPED KNEE—SWOLLEN KNEES.



Capped Knee.

Definition.—A swollen condition of the knees, with distention of the bursæ.

Causes.—When the bursæ are involved, the cause is usually overstrain, slipping, &c., or injury through blows or from falling. Debilitated condition of the system, through bad food, insufficient ventilation, depressing diseases, &c., is also a predisposing cause.

Treatment.—This depends on the cause. If due to weakness alone, a course of “**Hewthorn’s Tonic Balls**” are indicated, combined with the rubbing in of “**Hewthorn’s Matchless Embrocation**” to the swollen parts every other day for a week. Should no benefit be derived from this treatment, an application of “**Hewthorn’s Liquid Blister**” ought to be tried; repeating it in a fortnight, if the swelling is still present.

If the disease be due to injury, bathe the parts well, and apply “**Hewthorn’s Cooling Lotion**” until all inflammation has subsided; when rub in “**Hewthorn’s Matchless Embrocation**” daily. Give a course of “**Hewthorn’s Conditioning Powders**” if the horse is poor and out of condition; but when the animal is plethoric, give a “**Hewthorn’s Physic Ball**,” and give low diet; at the same time applying “**Hewthorn’s Matchless Embrocation**” regularly. It is essential to keep a good bed under the animal, and also to pad any portion of the stall on which the patient may strike and injure the knee.

RING BONES.



Outward appearance of Ring Bone.



Bony Deposits resulting from Ring Bone.

Definition.—These consist of bony deposits below and above the coronet.

Causes.—Overstrains, owing to heavy work, or rheumatism. They are most usually seen in heavy horses.

Symptoms.—Lameness and swelling may or may not be present, according to the extent of the deposit. The animal goes badly, however, on hard roads. Pressure on the sides of the pastern causes the animal to flinch with pain; and badly fitting shoes will increase the lameness.

Treatment.—When there is much inflammation, treat by fomentations and hot bran poultices applied to the feet. Give a “**Hewthorn’s Purgative Ball**,” and, later, when inflammation is reduced, “**Hewthorn’s Liquid Blister**” should be carefully applied round the coronet twice or three times in the course of two or three weeks. This treatment usually meets with success. Turn the animal on to soft ground, and give “**Hewthorn’s Blood Purifying Salt**” for a week or two, as directed.

SIDE BONES.

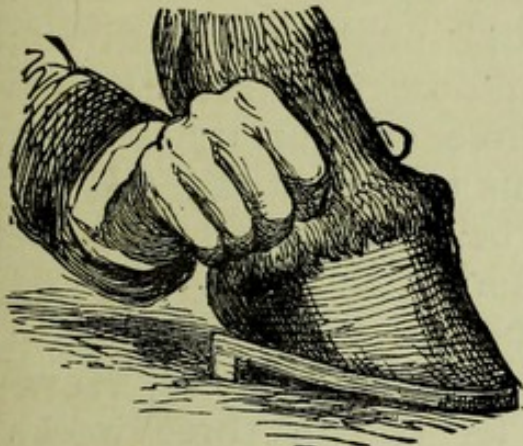
Definition.—A gradual hardening (owing to slow ossification) of the lateral cartilages.

Causes.—This disease is generally seen in draught horses, owing to the great weight their feet have to bear.

SIDE BONES—*continued.*

Bad shoeing ; putting too high heels on the shoes ; and often hereditary tendency also are further and aggravating causes.

Symptoms.—Lameness is not always noticeable,



A Test for Side Bones.

but the animal moves stiffly ; the heels are contracted and weak ; and the feet may be flat or convex. Pressure on the cartilages (see plate) shows them unyielding and hard. In actual lameness due to side bones, the toe of the foot is brought to the ground *first*, and the animal shows a sort of

“grogginess” similar to that produced by navicular disease.

Treatment.—Give rest to the limb ; remove the ordinary shoes, and apply bar shoes ; resort to counter-irritation by applying “**Hewthorn’s Blister Ointment**” once a week as directed on the jar. Removal of the cartilages has sometimes been resorted to, but this must only be performed by an expert. Give “**Hewthorn’s Conditioning Powder**” for two or three weeks after treatment.

SORE SHINS.

Definition.—Inflammation of the shins usually attacks young animals through overwork, and is most frequently seen in race horses.

Symptoms.—Lameness ; swelling of the part ; heat and tenderness on pressure. The swelling is usually soft, but sometimes however bony deposits arise, when the part becomes hard, and the lameness disappears.

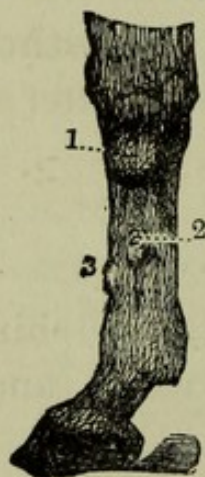
Treatment.—In mild cases cold bathing frequently applied often effects a cure. If the swelling is large and

SORE SHINS—*continued.*

painful, the part should be freely lanced with a fine lancet, to allow the exudation to escape. Hot fomentations are to be applied, and "**Hewthorn's Black Healing Oils**," two or three times daily; and later on cold fomentations. A "**Hewthorn's Purgative Ball**" ought to be given; followed, if there is pain, by a dose of "**Hewthorn's Sedative Extract**" in gruel three or four times daily during the treatment. Should this treatment fail, "**Hewthorn's Liquid Blister**" must be rubbed well into the part after the soreness and inflammation has gone, and repeated in a week. At the outset, in all cases, keep the animal quiet and on low diet. Give a course of "**Hewthorn's Blood Purifying Salt**" for two or three weeks after convalescence.

SPLINTS or SPLENTS.

Definition.—This also is an inflammation of the metacarpal bone, producing a bony tumour, seen generally on the inner and upper third of the bone.



Various kinds of Splints.

- 1.—*High Splint, near knee.*
- 2.—*Low Splint.*
- 3.—*Small Front Splint.*



Shin Bone shewing a Splint.

Causes.—These are numerous: overwork; working the animal when too young; blows, &c. Splints constitute an unsoundness.

SPLINTS or SPLENTS—*continued.*

Treatment.—This consists in first stages, where tenderness is present, in applying “**Hewthorn’s Cooling Lotion**” frequently for three or four days. Then clip the hair, brush well with dandy brush, rub in lard or other grease below the affected spot to prevent the Lotion soaking in downwards; then damp the affected spot with a tooth brush saturated with “**Hewthorn’s Curb Lotion,**” and at once rub with the palm of the hand until dry. Care must be used to only damp the part affected, and the dressing must not be repeated for one month, and then only if any bony enlargements remain. One dressing is generally sufficient. The scurf that forms must not be touched, removed, greased, or interfered with in any way, but simply left to fall off naturally. If still lame the animal ought to have a long rest by turning him out to grass.

THOROUGH-PIN.

Definition.—This is a dropsical enlargement of the tendon of the hock joint, appearing just above the point of the hock. (The fluid may by pressure be forced from one side of the hock to the other, although no actual connection exists between the joint of the hock and the sheath). “**Thorough-Pin**” differs from “**Bog Spavin,**” as will be seen by comparison of the illustrations in each case.



Thorough-Pin.

Causes.—Strain of the tendon of the hock, caused by the animal having to pull, or start with heavy loads, leading to effusion into the sheath surrounding the tendon.

Treatment.—Have the horse shod with high heeled shoes. Pressure by means of a truss should also be applied. (The swelling may be punctured, but the result is not usually satisfactory.) “**Hewthorn’s Absorbent Lini-ment**” should then be applied to the part daily, as directed on the bottle, with the object of acting as a resolvent; and “**Hewthorn’s Conditioning Powder**” given daily, as directed, for a time.

TENTH SECTION.

INJURIES, WOUNDS AND THEIR
CONSEQUENCES.

THE GENERAL TREATMENT OF WOUNDS :

STOPPING BLEEDING ; CLEANING THE WOUND ;
RESTORING THE POSITION OF THE PARTS ;
PREVENTING INFLAMMATION.

- (1) BURNS AND SCALDS.
- (2) STINGS AND BITES.
- (3) CHOKING.
- (4) TUMOURS, HARD SWELLINGS, &c.
- (5) POLL EVIL.
- (6) FISTULOUS WITHERS.
- (7) SPRAINS OR STRAINS.
- (8) STRAINS OF THE SHOULDER AND LEG—
RHEUMATIC JOINT—SPRAIN OF THE FLEXOR MUSCLES
—SHOULDER SLIP—SPRAIN OF THE BACK SINEWS
OR FLEXOR TENDONS.
- (9) CURB—SPRAIN OF THE CALCaneo-CUBOID LIGAMENTS.
- (10) WIND-GALLS.
- (11) BROKEN KNEES—WOUNDS OF THE KNEES.
- (12) INJURIES OF THE FOOT AND LOWER LEG—
INTERFERING—OVER-REACH—TREAD, OR CALKING—
SPEEDY CUT—BRUSHING.

THE GENERAL TREATMENT OF WOUNDS.

In treating any kind of wound the four most important points are :—

1. To arrest the bleeding.
2. To thoroughly wash and clean the wound.

THE GENERAL TREATMENT OF WOUNDS—*continued.*

3. To bring the wounded parts as nearly as possible together, by stitching, suture, or other means.
4. To keep the animal perfectly quiet, and so guard against inflammation; and, if inflammation be present, to use prompt and efficacious means to allay it.

1. **Cleaning the Wound.**—Bathe above the wound (see plate), using water mixed with 1 oz. of Carbolic Acid to the gallon; any hair, dirt, or grit must be carefully removed by the fingers or by forceps.



2. **To arrest Bleeding.**—Soak a pad of lint or wool in “**Hewthorn’s Styptic Dressing**,” and bandage it on firmly over the wound, or insert it into the wound, if large, and keep it there till bleeding stops. After an hour or two moisten the lint or wool and carefully remove the pad. If bleeding begins again,

repeat the above treatment.

If the flow of blood is regular and dark in colour, the urgent necessity for *immediately* stopping it is not so great; but if the blood is bright red, and *spurts* from the wound, it shows that an *artery* is cut; and this must be at once discovered, and the open ends seized with the forceps and tied up tightly with a silk thread.

3. **To Stitch or otherwise bring the parts together.**—The edges of the wound, if clean cut, should be carefully brought together and stitched, or held together by straps of sticking plaster (see plates). If a bone be broken, bring the edges carefully together so that they “fit,” and apply splints to prevent them moving, even in the slightest degree.

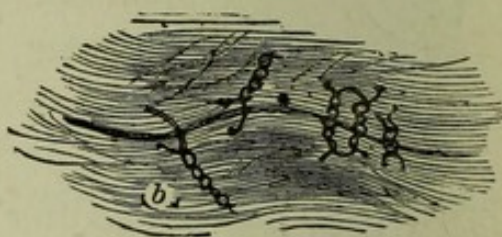
THE GENERAL TREATMENT OF WOUNDS—*continued.*

VARIOUS SUTURES, &c., FOR CLOSING WOUNDS.

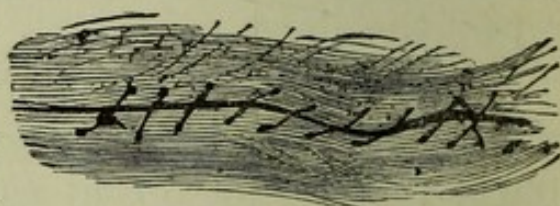
Twisted Suture.—Strong pins are passed through the lips of the wound, and soft twine twisted round each pin in the form of the figure 8 to draw the edges of the wound into contact. Suitable for small wounds.

*Twisted Suture.**Suture Needle.*

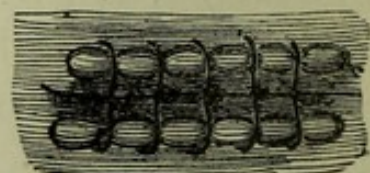
Interrupted Suture.—Separate stitches are put through the lips of the wound, and each stitch tied or otherwise fastened separately. Suitable for irregular shaped wounds.

*Interrupted Suture.*

Uninterrupted Suture. A continuous line of stitches from one end of the wound to the other is made, and tied at the finish.

*Uninterrupted Suture.*

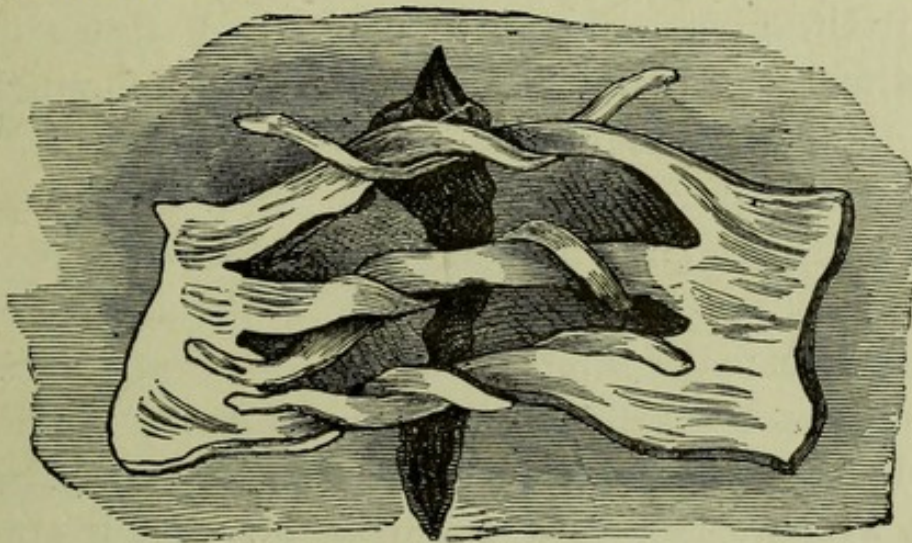
Quilled Suture.—Suitable for wounds where pressure, or weight of the flesh on the the lower side would make ordinary stitches tear. Two half-round pieces of wood the length of the wound are notched at distances corresponding to the width apart of the stitches. The wound is then stitched, each stitch being made separately, and ends left

*Quilled Suture.*

THE GENERAL TREATMENT OF WOUNDS—*continued.*

long enough to tie. One piece of wood is then laid on each side of the wound, and each stitch tied firmly over it into its notch.

Eight-Tailed Bandage for Wounds.—Where, for any reason, sutures cannot be used, an eight-tailed bandage of suitable size should be employed (see plate). Glue the bandage firmly on to the skin and hair, and when the glue



Eight-Tailed Bandage for Wounds.

has set, draw the wound together and tie the bandage ends securely. Flat strips of wood may then be slipped under the bandage ends to press the edges of the wound down and closer together.

Every Stock owner ought to be possessed of a small surgical case containing curved needles, lancets, silk thread, catgut ligature, and silver wire.

The sutures, stitches or other means used to join the edges, may be removed on the fifth or sixth day; and local applications may then be employed, "**Hewthorn's Healing Oils**" being the best. The wound ought to be bathed two or three times daily, with hot or cold water as expediency suggests, in which some disinfectant

THE GENERAL TREATMENT OF WOUNDS—*continued.*

agent should be used, permanganate of potash, or solution of borax, &c. Dress the wound after each bathing with "**Hewthorn's Healing Oils,**" or "**Hewthorn's Healing Jelly.**"

4. **Preventing Inflammation.**—The first thing to do, is to place the animal in comfortable quarters, and keep him quiet; and, if a horse, give a "**Hewthorn's Purgative Ball.**" Should any feverishness show itself, give a dose twice or three times daily of "**Hewthorn's Antifebrile Stimulant.**" If much pain exists, the "**Stimulant**" is to be stopped, and "**Hewthorn's Sedative Extract**" given instead. Should the wound, through not having been dressed for several days, appear foul, bad smelling and perhaps filled with maggots, &c.; the first thing to do is to clean and disinfect it. To kill maggots, sprinkle the surface with calomel. All ragged tissue must be cut away, and the wound well washed with warm water. Then apply lint or tow soaked in "**Hewthorn's Healing Oils,**" and cover the wound with wet bandages, leaving the lint in the wound; and re-wet the part three or four times daily, without removing the dressing, so long as the wound appears healthy. Re-dress the wound every day.

BURNS AND SCALDS.

These are most common among horses at ironworks, and other similar places.

Symptoms.—In severe cases, fever and shivering, coldness of ears and legs, small, quick, and feeble pulse accompany the injuries; with a watery discharge; and swelling and inflammation of the damaged surface. Suppuration usually follows also.

BURNS AND SCALDS—*continued.*

Treatment.—Smear the injured parts over four or five times a day (so that they are kept completely covered) with lime water and linseed oil mixed in equal parts; or spread thickly all over the wound a paste made of ordinary baking soda and water. This gives almost instant relief. Where there is much fever, give two or three doses daily of “**Hewthorn’s Antifebrile Stimulant**” in gruel. As long as the part appears moist, continue to apply more of the paste. This treatment will generally succeed, and the wound heal under the paste.

BITES AND STINGS OF INSECTS.

These can be promptly relieved by keeping them smeared with a mixture of equal parts of sweet oil and “**Hewthorn’s Healing Oil.**”

CHOKING.

This is usually caused by some article of dry food, or a potatoe, apple, &c., becoming lodged in the gullet.

Symptoms.—The animal makes violent efforts to swallow; its throat and neck are contracted spasmodically. Cold sweats appear on the body, the animal coughs and slavers, and there is an anxious expression on the face.

Treatment.—If the obstacle can be reached with the hand, or a pair of forceps, draw it back through the mouth. To do this, place a gag in the mouth, pull the tongue well forward, insert the arm or forceps, and remove the obstruction. When too far down for this, gentle

CHOKING—*continued.*

manipulation up and down the outside of the gullet may be successful; and this can be aided by administering a very small quantity of sweet oil. Should this fail, the probang must be used. The head and neck must be extended and *kept* in as straight a line as possible; the probang well oiled, and passed down the gullet. When the obstacle is reached use very gentle pressure, to avoid tearing the gullet. Should this fail, the next resource is to cut the gullet, and so remove the obstacle—but in this case, the veterinary surgeon should be sent for.

TUMOURS—HARD SWELLINGS, &c.

When these are obstinate and slow in dispersing it is necessary either to remove them by operating upon them or to apply some counter-irritant to induce absorption.

Treatment. — Give a “**Hewthorn’s Purgative Ball.**” Bathe the parts well with hot water, and then rub briskly, for five minutes, with “**Hewthorn’s Absorbent Ointment;**” and repeat every day until the tumour disappears. Leave off for two or three days if the skin becomes very sore. If still obstinate, “**Hewthorn’s Blister Ointment**” may be applied once or twice during a fortnight to bring to a head. A lancet incision should then be made, at the most dependent part, to allow of the escape of any fluid or pus that may be present. Keep the wound open, and plug with tow saturated in “**Hewthorn’s Healing Oils.**” Do this twice daily, fomenting the tumour before each dressing. During the whole treatment, give “**Hewthorn’s Blood Purifying Salt**” daily, in a mash.

POLL EVIL.

Definition.—An ulcerous abscess, usually terminating in fistulæ, situated between and behind the horse's ears.

Causes.—It is usually due to a blow on the part; from striking the head on a low doorway; or on the manger when feeding off the ground, &c. The use of a tight bearing rein will frequently produce it.

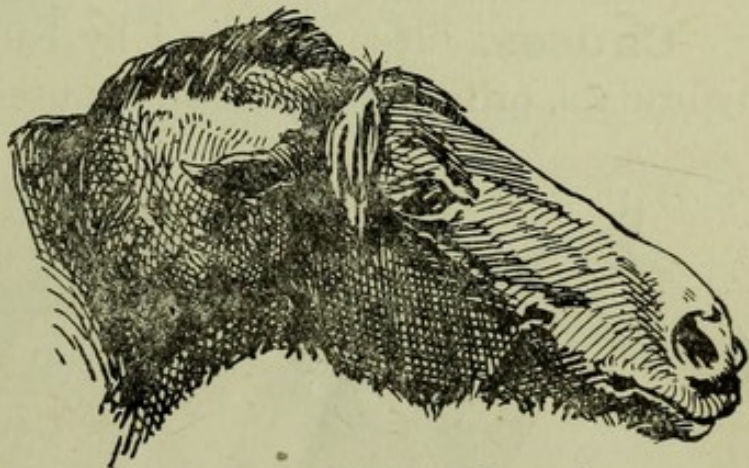


First Stage of Poll Evil.

even to the bone, causing great pain.

Treatment.—If the swelling is *hard and not painful*, give at once a "**Hewthorn's Purgative Ball**," and keep the part wet with "**Hewthorn's Cooling Lotion**." Give a "**Hewthorn's Diuretic Ball**" also every other day. If no heat and pain is evinced on pressure, dress the part daily with "**Hewthorn's Absorbent Liniment**." If, however, the swelling *softens*, puncture it at once with a lancet, making a free incision,

Symptoms.—At first, a soft swelling is observed accompanied by stiffness of the neck. Later on this swelling breaks, and forms a deep abscess with an unhealthy discharge. The abscess (or fistulæ) tends to extend inwardly, into the muscles of the neck and



Poll Evil—Ripe for Operation.

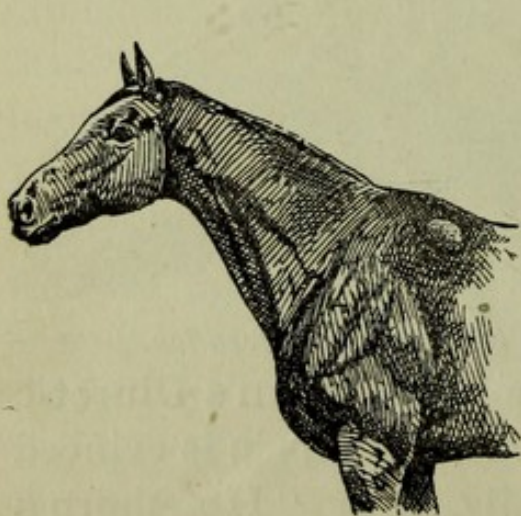
POLL EVIL—*continued.*

to allow the matter to escape; foment the parts freely for two or three days, and press out the pus. If fistulæ have formed, they must be probed, and free incisions made along them; and should the bone have been reached, it ought to be scraped. The wounds must now be syringed and washed, and an injection of 30 grains of Chloride of Zinc to 1 quart of water, used. This treatment must be continued for some time, until a healthy action sets in, when "**Hewthorn's Healing Oils**" should be applied. Give in bran mashes, a regular daily dose of "**Hewthorn's Conditioning Powder**" until well.

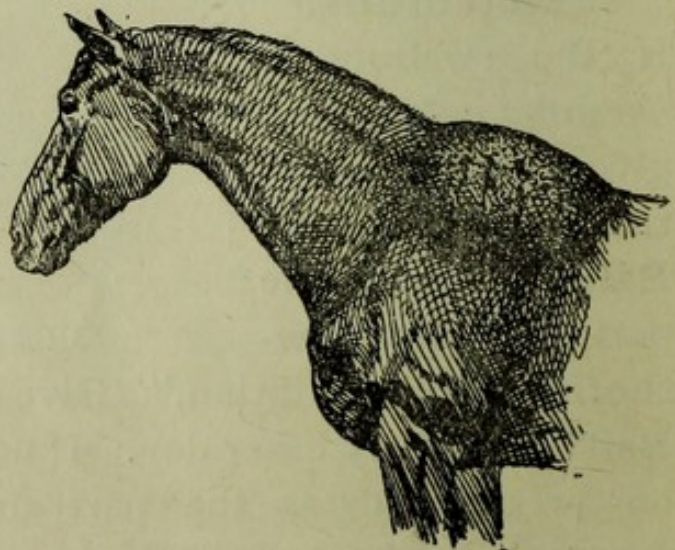
FISTULOUS WITHERS.

Definition.—In its nature this closely resembles Poll Evil, being due to bruise of the bursæ of the withers.

Causes.—It is produced by badly fitting saddles, or by bruises, or injury from other causes.



*Commencement of Fistulous
Withers.*



*Worse Stage of Fistulous
Withers.*

FISTULOUS WITHERS—*continued.*

Symptoms.—In the early stage there is pain and enlargement of the spinous processes of the withers, with heat and tenderness. After a time abscesses form, and the pus of these burrows its way in a downward direction, forming fistulæ, and leading to a serious condition.

Treatment.—The treatment to be adopted is exactly similar to that of “Poll Evil;” and, if sinuses (fistulæ) form, they must be probed and freely lanced. If fever is present, two doses daily should be given of “**Hewthorn’s Antifebrile Stimulant**,” varied occasionally by doses of “**Hewthorn’s Sedative Extract**,” if the pain is great. Good nursing and food are essential to meet with success; and “**Hewthorn’s Blood Purifying Salt**” should be given regularly for three or four weeks.

SPRAINS or STRAINS.

Definition.—Actual stretching of the muscle, sinew or cartilage; with, sometimes, rupture of, or damage to, some of the fibres.

Causes.—Violent exercise, slipping up suddenly, or any exertion that greatly overtaxes the animal’s muscular powers, &c.

Symptoms.—Inflammation, heat, swelling, and tenderness in and around the injured part. If not duly attended to, atrophy, or wasting of the part, may occur.

Treatment.—1st. Rest the part. 2nd. Reduce the inflammation by applying hot water fomentations three

SPRAINS or STRAINS—*continued.*

times a day, and "**Hewthorn's Cooling Lotion.**" 3rd. Bandage the part firmly. 4th. Use gentle counter-irritation to prevent stiffness. "**Hewthorn's Cooling Lotion**" frequently applied will reduce the inflamed condition. To relieve and cure the stiffness and swelling, rub well with "**Hewthorn's Matchless Embrocation**" daily; and, should the stiffness still remain, which sometimes occurs in old sprains, "**Hewthorn's Liquid Blister,**" well rubbed in, and repeated in a week, will quickly cure. "**Hewthorn's Conditioning Powder**" should be given nightly for a week or two. In cows, an occasional "**Hewthorn's Yellow Drench**" is beneficial, as it tends to allay any feverish symptoms.

STRAINS OF THE SHOULDER AND LEG.

Shoulder lameness may be due to several causes:—

1. Injury or rheumatism.
 2. Strain of the flexor muscles.
 3. Shoulder slip.
1. **Injury to, or Rheumatism in, the Shoulder Joint.**

This is what is usually called "Shoulder Lameness." The gait is characteristic of the disease; when moving, the leg is thrown outward in a curve, instead of being brought forward in a direct line. Sometimes the toe is dragged along the ground (see plate, page 83), and if the knee be bent, pain is evinced. Swelling and heat may also be present.

STRAINS OF THE SHOULDER AND LEG—continued.**2. Sprain of the Flexor Muscle.**

This is the muscle which extends the limb, and it is frequently injured through over-exertion ; when it appears swollen, and is tender to the touch.

3. Shoulder Slip.

This is peculiar, and is due to the three muscles supporting the shoulder blade (*the Anterior and Posterior Spinatus and the External Round Muscle*) being relaxed ; producing a slipping outward of the shoulder joint each time the foot is placed upon the ground.

Treatment.—In treating all these cases the general rules laid down under the head of “Sprains and Strains” are to be observed. When inflammation is present, the animal ought to be slung, and the ailing part fomented with hot water three or four times daily. In chronic cases, where the lameness is of long standing, frequent applications of “**Hewthorn’s Matchless Embrocation**” twice or thrice daily, ought to be tried. If still no better, “**Hewthorn’s Liquid Blister**” should be rubbed well in for 10 or 15 minutes, and repeated in about a fortnight. Rest must in all cases be continued for some time. The same mode of treatment applies also to cattle.

**STRAINS AND SPRAINS OF THE BACK
SINEWS.**

Definition.—A stretching or rupture of the fibres of the principal tendons passing down the back of the front

STRAINS & SPRAINS OF THE BACK SINEWS—*continued.*

and hind legs, and the different ligaments connected with them. These ligaments, which act as a check to over-extension of the flexor tendons, frequently become strained, some of their fibres ruptured, and sprain is the result.

Symptoms.—Swelling, heat, pain and tenderness on pressure. The heels of the shoes are put down with difficulty; there is great stiffness; and, if the ligaments are involved, considerable swelling is apparent. If the hind limb is the seat of injury, the animal has great difficulty in flexing the fetlock; and consequently the leg is, as it were, drawn forward.

Treatment.—The animal must be kept in a quiet place and rested; apply cold fomentations to the part, repeating two or three times daily; after which use "**Hewthorn's Cooling Lotion**," which must be persevered with for some time. A "**Hewthorn's Purgative Ball**" ought also to be given, and low cooling diet. When the inflammation has subsided, and swelling is still present "**Hewthorn's Matchless Embrocation**" should be well rubbed in daily for a week; and should there still be thickening, "**Hewthorn's Blister Liniment**" should be applied, rubbing well into the part affected, and repeating in a week or ten days. The animal may then be turned out for a fortnight or three weeks until thoroughly sound. The heel of the shoe should be raised. Repeated attacks of this disease lead to permanent shortening of the sinew, and the animal then walks on the toe.

CURB.

Definition.—Sprain of the calcaneo cuboid ligament, situated below the back of the hock.

Symptoms.—A hard swelling under the point of the hock, or it may be an elastic long swelling easily



A Clean Hock.



Slightly Curbed Hock.



A Curb.

seen. More especially prevalent in what are termed “Cow-hocked” horses.

Treatment.—Reduce the inflammation by applying “Hewthorn’s Cooling Lotion.” Give “Hewthorn’s Purgative Ball” if the animal is feverish and the lameness is great. When all heat disappears, treat as described on page 103, for “Splints.” A high heeled shoe should be put on, and “Hewthorn’s Conditioning Powder” should be given for a week or two in bran mash nightly.

WINDGALLS.

Definition.—Dropsy of the bursæ of the small bones at the back of the fetlock.

WINDGALLS—*continued.*

Symptoms.—Swellings at the back and sides of the fetlock and at the side of the flexor tendons, which become puffy after hard work.



Wind Galls.



Puffy appearance of a wind galled leg after extra work.

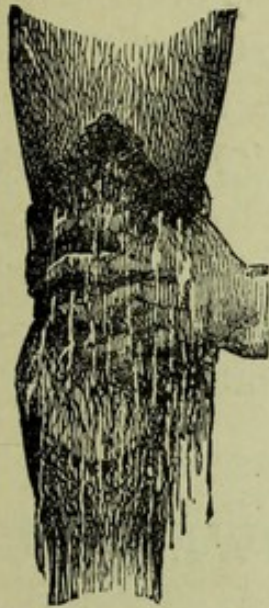
Treatment.—Bathe the parts three or four times a day with cold water, and bind on a bandage saturated with “**Hewthorn’s Matchless Embrocation**,” every night for four nights. If not entirely removed in ten days repeat this treatment. Give “**Hewthorn’s Blood Purifying Salt**” every night for a week, and every other night for a week afterwards.

BROKEN KNEES.

Injuries to the knees sometimes have a serious termination, and great care ought to be taken when treating them.

BROKEN KNEES—*continued.*

Treatment should be as follows:—



The right way to bathe a Broken Knee—"Hold the sponge above the injured place."

1. *When the skin is not broken, but the knee is bruised.*—Foment the injured part well, and then sponge it well with "**Hewthorn's Cooling Lotion**" and when the first tenderness is gone, rub with "**Hewthorn's Matchless Embrocation**" daily, till the part is sound.

2. *When the skin is cut.*—Clean the wound by carefully fomenting, remove all traces of grit and dirt, and if necessary apply a poultice. When the wound is absolutely clean, cut away any ragged edges, dress with "**Hewthorn's Styptic Dressing**," and fasten the lips of the wound together with plaster, and bandage *lightly*. Give a "**Hewthorn's Purgative Ball**;" dress the wound daily with a little "**Hewthorn's Healing Oils**," and keep the animal in slings till tenderness is gone. Any after-enlargement should be rubbed with "**Hewthorn's Matchless Embrocation**" daily, which will soon disperse it.



1.



2.

3. *When the sheath of the tendon is injured* and the swelling is considerable, foment the part well. Give a "**Hewthorn's Purgative Ball**," and twice daily "**Hewthorn's Antifebrile Stimulant**." Support the animal by slinging, and dress the wound for three or four days with a weak solution of Carbolic acid (one drachm to

BROKEN KNEES—*continued.*

3.

one pint water). After this, dress daily with "**Hewthorn's Healing Oils**," till the wound is healed. Keep up the animal's strength by giving a course of "**Hewthorn's Conditioning Powder**," and to reduce any swelling left after the wound has healed, apply daily for a week a good rubbing of "**Hewthorn's Matchless Embrocation**."

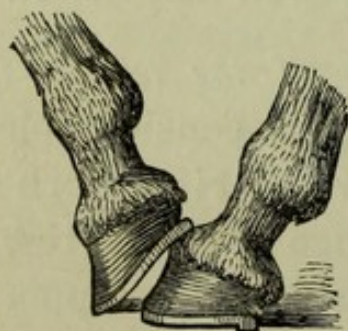
INJURIES TO THE FOOT AND LOWER LEG.

These include the following:—

1. **Interfering.**—An injury to one fetlock produced by a blow from the opposite foot. The only treatment consists in shoeing carefully and in wearing a "boot" on the injured fetlock.

*Over-reach.*

2. **Over-reach.**—This is an injury to the heel or side of the coronet of the fore foot by the edge of the shoe of the hind foot. It generally happens when the horse is going at a rapid rate, and is most prevalent in light horses; bad shoeing is also a cause occasionally.

*Tread—Forefoot on hind foot**Tread—Hind feet crossing.*

3. **Tread.**—A wound upon the coronet, produced either by the calking of the shoe of another foot; or, where crowded, by the shoe of another

animal. This injury sometimes leads to "Quittor."

INJURIES TO THE FOOT & LOWER LEG—*continued.*

Treatment.—In both “Over-reach” and “Tread,” bathe the wound with warm water, and, if badly injured, poultice. Apply “**Hewthorn’s Healing Oils**” and repeat the poultices, until the wound appears healthy; after which continued daily application of “**Hewthorn’s Healing Oils**” will speedily cure.

4. **Speedy Cut.**—A bruise or other injury on inside of the fore leg, either above or below the knee, caused by a blow from the opposite foot. It is most frequently produced through forcing the animal to an unduly rapid pace, and is most common in horses whose toes turn in. Careful shoeing sometimes prevents it, but, an animal liable to “Speedy Cut” should always be driven carefully, as he invariably falls whenever he “Speedy Cuts.”

5. **Brushing.**—This is caused by one foot striking the fetlock of the opposite leg, and is produced through over-work, debility, &c.

Treatment.—In both “Speedy Cut” and “Brushing,” have the horse shod with shoes bevelled away on the inside, and in “Brushing,” fit a leather boot on the “brushed” fetlock. Dress the wounded place with “**Hewthorn’s Healing Oils**” once or twice a day; and, to restore condition, give “**Hewthorn’s Conditioning Powder**” for three or four weeks.

ELEVENTH SECTION.

DISEASES OF THE EYES.

- (1) OPTHALMIA—CONJUNCTIVITIS—
INFLAMMATION OF THE EYES.
- (2) MOON BLINDNESS—PERIODIC OPTHALMIA.
- (3) ALBUGO—EYE SPOT—WHITE SPOT.
-

OPHTHALMIA — CONJUNCTIVITIS—
INFLAMMATION OF THE EYES.

Definition.—An inflamed condition of the outer covering of the eye-ball, and the lining membrane of the eyelids.

Causes.—A cold, exposure of the eye to draughts, blows, or the presence of dirt or of some irritating substance in the eye.

Symptoms.—The membranes of the eyes and the eyelids are greatly swollen, the eyelids are partly closed, and tears flow down the cheeks. On examination, the membranes will be found to be inflamed and red, the whites of the eyes congested, and the pupil dull looking; whilst signs of injury, or of the presence of some irritating substance, are visible to the person inspecting the eyes.

Treatment.—If the trouble is due to the irritation of any foreign body, such as a splinter, hay seed, chaff, &c., the first step is to endeavour to remove it. This is best done by using a feather or a small pair of forceps. Apply cold wet flannels to the eye, and keep them well saturated with cold water. Should the eyes be much inflamed, an

INFLAMMATION OF THE EYES—*continued.*

application of "**Hewthorn's Sedative Eye Ointment**" should be smeared round the eyebrows and eyelids to allay the pain. Keep the animal in a dark stable, and change the wet cloths frequently; and continue to apply the "**Hewthorn's Sedative Eye Ointment**" two or three times daily till cured.

**MOON BLINDNESS—
PERIODIC OPHTHALMIA.**

Definition.—An inflammation of the eyes, recurring frequently. It is usually of a constitutional character.

Symptoms.—Suddenness of the attack, which usually comes at night; the eye is much swollen, and the inner membranes much inflamed, and injected; the pupil of one eye is larger than that of the other; probably a milkiness of the eye is observable, or a speck may be seen in the pupil.

Treatment.—Bathe the eyes with cold water, and apply "**Hewthorn's Sedative Eye Ointment**" as in "**Conjunctivitis**;" give a "**Hewthorn's Purgative Ball**," and, if it is rheumatic in its origin, give "**Hewthorn's Conditioning Powders**" twice daily in a mash for two or three weeks.

ALBUGO—EYE SPOT—WHITE SPOT.

When this condition (a whitish spot on the pupil of the eye) is present, an occasional light touch with a stick of Silver Nitrate may reduce it. This application must, however, be made with the greatest care.

TWELFTH SECTION.

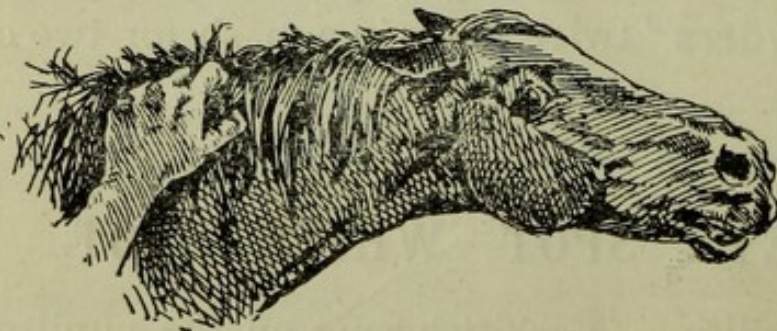
SKIN DISEASES.

- (1) MANGE—ITCH.
- (2) LICE.
- (3) WARBLER—GRUBS—SITFASTS.
- (4) ECZEMA OR TETTER.
- (5) MALLENDERS AND SALLENDERS.
- (6) NETTLE RASH—SURFEIT—URTICARIA.
- (7) RINGWORM.
- (8) SORE BACKS—SHOULDER GALLS—SADDLE GALLS &C.

MANGE—ITCH.

Definition and Causes.—Mange is due to a parasite which infests the skin, and its presence is, as a rule, caused by filth, unthriftiness, an unhealthy condition of the body; or by actual contact with already affected animals.

Symptoms.—Itching; thinness and loss of hair, and



A Test for Mange.

scurfiness; the animal rubbing the parts till they become sore, and manifests pleasure if scratched.

There is a thin watery discharge also, which quickly dries up, and forms scabs and crusts over the affected surfaces.

MANGE—ITCH—*continued.*

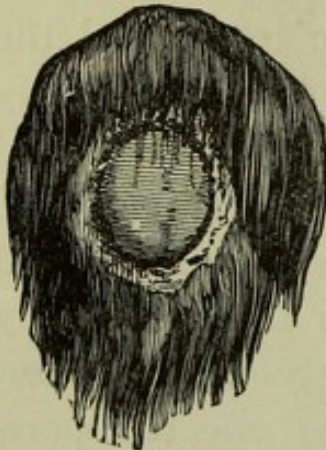
Treatment.—Use every precaution to prevent the spread of this most contagious disease. Completely isolate the patient; remove all healthy animals; and thoroughly clean the stalls and pens, and every article and utensil that has been used for the affected animal, and do not allow them to be used for any other animal on any pretence. Disinfect throughout thoroughly with "**Hewthorn's Disinfectant Fluid.**" Scrub the affected parts with soft soap and hot water, and then apply "**Hewthorn's Antiparasitic Lotion,**" or "**Hewthorn's Mange Ointment,**" and repeat daily as per directions. Feed on nourishing diet, giving a dose of **Hewthorn's Blood Purifying Salt**" in a mash daily for a fortnight. In cattle, give half a "**Hewthorn's Yellow Drench**" every other day for a week. These measures if persevered with, will soon cure.

LICE.

Lice are most prevalent amongst old, poor, and badly fed animals; and the complaint is best treated as recommended in the last article on "Mange." Sometimes it is also advisable to clip the animal. Give "**Hewthorn's Blood Purifying Salt**" daily, and a course of "**Hewthorn's Tonic Balls.**" Keep everything clean, and disinfect as stated in article on "Mange."

WARBLES—GRUBS—SITFASTS.

Definition.—These names are used to describe the skin disease scientifically termed "Acne."

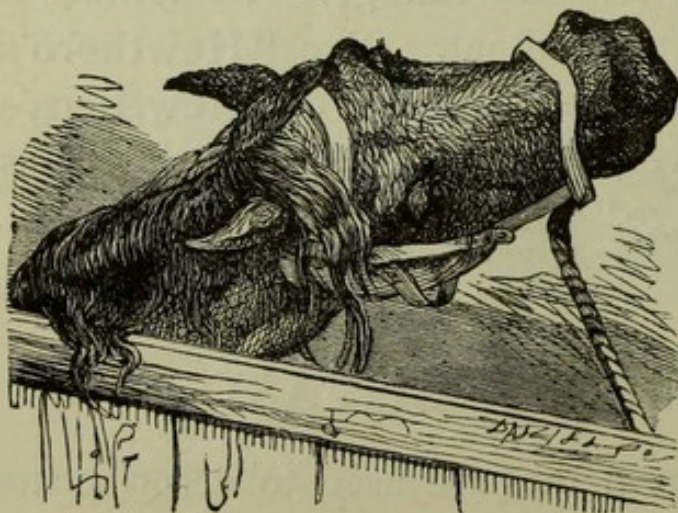
WARBLES—GRUBS—SITFASTS—*continued.**A Sitfast.*

Symptoms.—Small hard lumps appear beneath the skin, principally at the withers; on the back and neck; and at the root of the mane and tail. They frequently suppurate, and eventually form ulcers which are slow to heal. When chafed by the harness they become hard and tough, and form what is termed a “sitfast.”

Treatment.—In the simpler forms, first poultice or bathe the parts well, and then apply “**Hewthorn's Healing Oils.**” Give a teaspoonful of sulphur mixed in the food every morning. When a “sitfast” is present, dissect it off with a sharp lancet, after which bathe and apply “**Hewthorn's Healing Oils.**” If not inclined to heal in proper course, touch it with caustic.

ECZEMA or TETTER.

Definition.—This eruptive skin disease usually shows first about the neck, shoulder, back, and thighs. It is non-contagious, and is not due to a parasite, differing

*Symptoms of Eczema.*

in these respects from “Mange,” which it may otherwise be mistaken for.

Symptoms.—Incessant scratching; red and inflamed skin; showing small blisters or vesicles, which break and discharge a thin

ECZEMA or TETTER—*continued.*

watery fluid. It is supposed to be constitutional, and frequently recurs each summer.

Treatment.—A complete change of diet ought to be given. Give a “**Hewthorn’s Purgative Ball,**” followed by daily doses of “**Hewthorn’s Blood Purifying Salts**” in mashes. Dress the skin by soaking the scabs and crusts with sweet oil for two or three hours, then wash with soap and water, and dress with “**Hewthorn’s Cooling Lotion.**” If this does not cure in a week, apply “**Hewthorn’s Skin Ointment;**” wash this off in two days with soap and water; and repeat if necessary. Fowler’s Solution of Arsenic given twice daily for a week in half ounce doses in a pint of water also tends to effect a cure.

MALLENDERS AND SALLENDERS.

Definition.—Eczematous scurfy patches occurring at the back of the knee (Mallenders), and on the front of the hock (Sallenders).

*Mallenders.**Sallenders.*

nasty transverse fissures, which are extremely difficult to cure.

Symptoms.— It starts as a form of eczema, but the discharge which appears gradually increases, and forms a crust, which cracks, leaving

Treatment.—If constipation is present; give a “**Hewthorn’s Purgative Ball,**” and regulate the diet.

MALLENDERS and SALLENDERS—*continued.*

The sore parts ought to be bathed well; and treated as directed for Eczema. Change the diet and give a dose daily of "**Hewthorn's Blood Purifying Salt**" in mashes. The cracks may be touched with caustic two or three times to induce a healthy action.

NETTLE RASH—SURFEIT—URTICARIA.

Definition.—This complaint is very common, and consists of an eruption of small lumps, attended with itching; appearing suddenly, generally about the neck, and frequently disappearing as suddenly as it came.

Causes.—It is due to digestive disturbance; and is seen on animals in a plethoric condition; or when an animal has been brought from grass and put on hard food.

Treatment.—Give at once one of "**Hewthorn's Purgative Balls**," and relieve the itching by bathing the skin two or three times daily with "**Hewthorn's Cooling Lotion**." Give mashes in which place one dose daily of "**Hewthorn's Blood Purifying Salt**;" and continue these for two or three weeks.

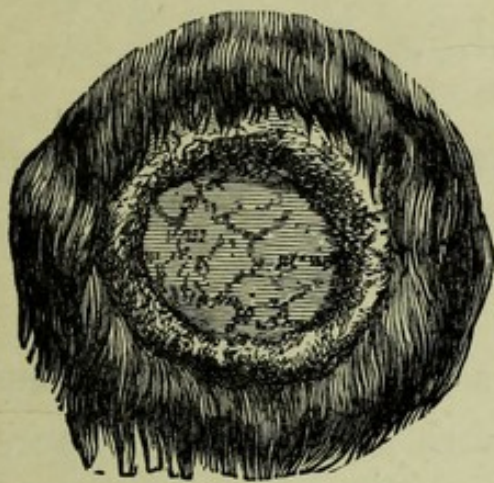
RINGWORM.

Definition.—There are two forms of Ringworm—the simple non-contagious form, called "herpes;" and the parasitic contagious form, called "tinea." The latter is due to the presence of a vegetable parasite.

Causes.—Non-contagious Ringworm (herpes) generally arises from indigestion, or from the horses being shut

RINGWORM—*continued.*

up in close, ill ventilated stables; huddled together on board ship, &c. The other form (tinea), which is very contagious, appears on well cared for animals as well as poorly fed ones.



Ringworm.

Symptoms.—“Herpes” appears as little blisters on the surface of the skin, the hair falls off and small patches are the result. In the other form (tinea), the parasite attacks the

hair follicles, leaving circular bald patches, with fine white bran like scales. If neglected, these patches gradually enlarge, and increase in number.

Treatment.—For “herpes,” give the patient a “Hewthorn’s Physic Ball,” if a horse, or a “Hewthorn’s Yellow Purgig Drench,” if a cow. Wash the parts with soap and water, dry carefully, and dress with “Hewthorn’s Cooling Lotion;” and apply “Hewthorn’s Skin Ointment” daily until cured. A “Hewthorn’s Alterative Ball” ought to be given daily, in the case of a horse; and cattle should have a dose or two of “Hewthorn’s Cordial Drench.” For “tinea” the same line of treatment should be adopted, substituting “Hewthorn’s Absorbent Ointment” instead of the “Skin Ointment,” and using it with great care, as directed, as it is powerful. In this case, isolation is absolutely imperative, and the stables, mangers or pens, and all utensils, &c., must be thoroughly washed with hot water, and well disinfected with “Hewthorn’s Fluid Disinfectant.” Grooming must be stopped till the Ringworm is cured, as it spreads the area of the disease.

SORE BACKS—SHOULDER GALLS— SADDLE GALLS, &c.

Causes.—Old, ill-fitting harness, undue pressure, lack of cleanliness, careless grooming, and the non-removal of perspiration and dirt.

Symptoms.—More or less swelling and hardness of the skin, and in some cases a sore place. In advanced cases this becomes a "Sitfast," for treatment of which see page 125.

Treatment.—Wash carefully with warm water, and dress with "**Hewthorn's Cooling Lotion**" if there is any inflammation; and, when this has been reduced, dress once or twice a day with "**Hewthorn's Healing Oils**" or "**Hewthorn's Healing Jelly**." The animal should be rested as much as possible, and care taken to completely relieve all pressure of the harness or saddle on the injured place. Should the sores "weep," and require drying up, use "**Hewthorn's Wound Lotion**" or "**Hewthorn's Wound Powder**" a few times, and then apply the "**Healing Oil**" or "**Healing Jelly**."

HEWTHORN'S
VETERINARY
GUIDE.

CATTLE SECTION.

LONDON:
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NEW THORNTON'S

VETERINARY

GUIDE.

OF THE SECTION

F. H. W. THORNTON & CO.

TO THE BURY RAVENHURST F.C.

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DISEASES OF CATTLE.



GENERAL REMARKS ON THE DISEASES OF CATTLE AND THEIR TREATMENT.

A large number of the diseases that affect Cattle also affect Horses, and their treatment has been dealt with in the "Horse Section" of this Book.

We intend now to briefly describe those diseases that are peculiar to Cattle. The diseases of Sheep and Swine will be dealt with separately later.

Cattle are so seldom used for draught purposes that lameness and disorders of the "wind" are with them far less frequent and of smaller importance than with Horses. Cattle, however, are more susceptible to pain than Horses, and cannot withstand it long without it showing markedly injurious effects upon them.

The food of Cattle being given with the object of producing fat and muscle, or milk, and Cattle themselves being naturally plethoric, slow of motion, and averse to exercise; they become, especially under a forcing system of diet, subject to many diseases brought on by surfeit, over richness of the blood, &c.

Another result of their being heavily fed is apparent in their greater susceptibility to *local* disease-producing influences.

Glandular swellings, ulcers, and malignant forms of carbuncular disease are more common and more destructive, and pleurisy and pleuro-pneumonia are also much oftener seen in Cattle than in the Horse. Consumption again, although rare in the Horse, is common in Cattle, specially in Milk Cows after neglected colds, pleurisy, or pneumonia.

PECULIARITIES OF THE ACTION OF MEDICINES ON CATTLE.

In Cattle the stomach is divided into four compartments (see page lxix.); but it is only in the last one, the fourth stomach, or abomasum, that medicine acts as it does in the stomach of the Horse or of man. This being so, it is not unusual to find that medicine given to Cattle remains for a long time *inactive* in the first or third stomach, and this leads the owner to imagine either that obstinate constipation exists, or that the quality of the medicine given is bad. Under this impression more doses are sometimes given, with the result that, when the drugs *do* act, they act so violently as to do almost as much harm in one way as they do good in another.

To avoid this undesirable result, it is necessary to observe two precautions:—

1. In giving medicine to Cattle always give it *in the liquid state* and mixed with plenty of water, gruel, or other vehicle—from one to two quarts, according to the size of the beast.

2. Always combine with the medicine, where rapid action is desired, some aromatic substance to excite the coat of the rumen to action, such as powdered ginger, carraway seed, mustard, &c. With Hewthorn's Cattle Medicines, the required proportion of these is always incorporated in the medicine.

The size of the dose is generally much larger for Cattle (nearly double) than for Horses, owing in part to the arrangement of the stomachs, and also because of the more phlegmatic temperament of the Ox, whose skin, kidneys and other organs are less easily acted upon by medicines.

To Cattle, saline medicines are most frequently given. Mercury ought to be given *with very great care*, as it produces salivation easily, and if given to Cows it not infrequently induces abortion. Mercurial ointments also, applied to Sheep, have been known to cause death from absorption of the poison through the skin.

FIRST SECTION.

GENERAL DISEASES OF CATTLE.

CATARRH—COLDS—COUGHS.

Definition.—An inflammation of the lining membrane of the nostrils, windpipe, respiratory passages, and adjacent parts. Cattle exhibit much the same symptoms in this disease as are described in the Horse Section. The membranes, however, become more swollen and the discharge is much thicker, tending to block the passages, and causing the animal to breathe with difficulty. Abscesses may form, and relief is given when they break.

Causes.—Usually, exposure to cold and wet. The complaint is most prevalent during spring, autumn and winter.

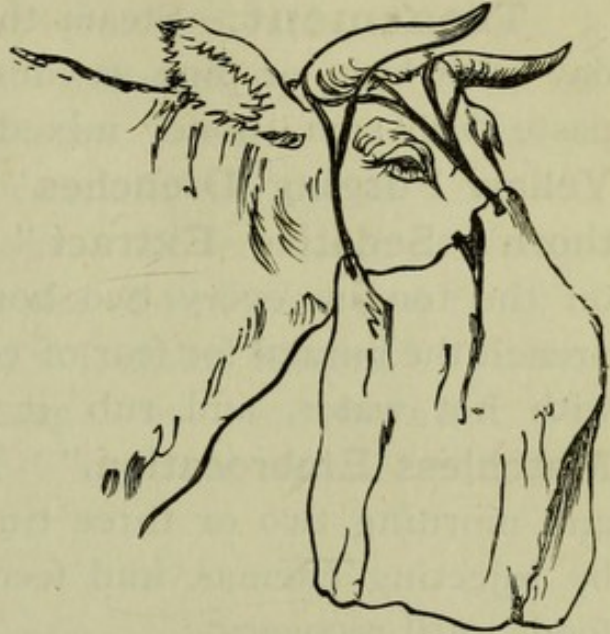


Symptoms.—At first, stiffness of the limbs, quickened pulse, dry nose; then profuse discharge from the nose, eyes, &c., and high coloured urine, with feverishness.

Treatment.—Clothe the animal comfortably, and place it in a warm well ventilated box. Give one of "Hewthorn's Yellow Purging Drenches," along with three or four tablespoonfuls of our **Antifebrile Stimulant** mixed in warm water or gruel and sweetened with molasses.

CATARRH, &c.—continued.

This may be repeated in twelve hours if the bowels do not act freely. Half a "**Hewthorn's Gaseous Black Drink**" and two tablespoonfuls of "**Hewthorn's Antifebrile Stimulant**" should be given every morning in a pint of gruel, and a "**Hewthorn's Cough Drink**" twice daily, if coughing is present. If there is profuse discharge from the nostrils, steam the head with a nosebag in which place bran or hay, and keep it hot by pouring boiling water over it (see page lxi.). The throat and chest should be rubbed with "**Hewthorn's Matchless Embrocation.**" Give nice warm mashes and good wholesome fodder. Disinfect, and keep the stall or sheds thoroughly clean and airy. Give "**Hewthorn's Thriving Mixture**" in the food for some weeks after recovery, to help restore strength and appetite, and to re-establish condition and health.



SORE THROAT—LARYNGITIS.

Definitions.—An inflammation of the larynx evinced by swelling of the parts, and pain on pressure, &c.

Causes.—Are the same as those of Catarrh.

Symptoms.—Discharge of saliva from the mouth, cough, difficulty in swallowing, with great thirst, and loss

SORE THROAT—*continued.*

of appetite, swelling and redness of the inside of the throat, feverishness, &c.

Treatment.—Steam the head three or four times a day with bran or pine sawdust (see page lxi.). Make a paste with some honey mixed with one of "**Hewthorn's Yellow Purging Drenches**" and one bottle of "**Hewthorn's Sedative Extract**," and place a tablespoonful on the tongue every two hours for two days. Do not drench the animal for fear of choking. Foment the throat with hot water, and rub it gently with "**Hewthorn's Matchless Embrocation**." This can be repeated night and morning two or three times; keep the bowels active by injecting enemas, and feed on mashes and other soft foods until recovery,

PNEUMONIA—INFLAMMATION OF THE LUNGS.

Definition.—An inflammation and congestion of the lungs, associated usually in cattle with bronchial catarrh.

Causes.—Are the same as those of catarrh and laryngitis; and it is a not unfrequent sequel to bad cases of these complaints.

Symptoms.—Harsh dry cough and fever. The animal grunts and there is shortness of breath; the head is extended when standing; the breathing is abdominal; and the pulse is frequent. The bowels are irregular, sometimes loose, at other times constipated. The animal has an anxious expression; the mouth is hot, red and clammy.

PNEUMONIA—*continued.*

Treatment.—Treat generally as prescribed for the horse (see page 18). Give a “**Hewthorn’s Yellow Purg-ing Drench**”; and, in fifteen or twenty minutes after, a “**Hewthorn’s Fever Drink.**” followed by another in an hour. Assist the action of the Drench by enemas if necessary, and repeat the Drench if the bowels are not acting well in twenty-four hours. When the worst symptoms begin to abate, rub the sides of the chest and front of the breast with “**Hewthorn’s Liquid Blister.**” Pursue the treatment, after this stage, as recommended for bronchitis. Clothe comfortably, and feed on mashes, green food, sliced carrots, &c.

JAUNDICE—
CONGESTION AND INFLAMMATION OF
THE LIVER—THE YELLOWS.

Definition.—A morbid condition of the liver; in which secretion of bile is interrupted, and it is unable to pass into the intestines, is absorbed into the blood, and the process of digestion is interfered with.

Causes.—Overfeeding, sudden changes of weather, excessive milking, obstruction from gall stones, &c.

Symptoms.—The animal ceases to chew the cud, appears dull, hide bound and loath to move; loses appetite and seems weak. The bowels may be costive, or there may be thin, ill-smelling scouring. In Cows the secretion of milk diminishes, and they wander off by themselves when on pasture.

JAUNDICE, &c.—continued.

Treatment.—Begin by completely changing the animal's food and surroundings. If stall fed, turn it into a yard or field and give plain sweet hay. If on rich pasture, stable in a nice roomy box and feed on light slops. For medicine, give a "**Hewthorn's Liver Drench**" in gruel, with half-a-pound of treacle, and a "**Hewthorn's Purging Drench**" three days after, and repeat this treatment till improvement occurs. If the disease is due to stone, a dose of "**Hewthorn's Sedative Extract**" is to be given with the drenches. The food should consist of plain sweet hay, bran mashes, and succulent food generally. Linseed tea should also be given frequently. Where weakness is excessive, a half bottle of "**Hewthorn's Gaseous Black Drink**" should be given daily in gruel, in addition to the foregoing treatment, till health is restored and "**Hewthorn's Thriving Mixture**" must then be mixed in the daily food for two or three months.

INDIGESTION IN CATTLE—LOSS OF CUD.

Definition.—This usually shows itself in the form of "Hoven," although under certain conditions the symptoms following indicate indigestion.

Symptoms.—Hide bound, staring coat; the food, during rumination, is imperfectly masticated. Later, the animal refuses to feed, ceases to chew her cud, loses flesh rapidly and pines away.

Treatment.—Give at once a "**Hewthorn's Yellow Purging Drench**" in a quart of Gruel sweetened with molasses, repeat a third of the **Yellow Drench** the next day in gruel, continuing same each day for three or four

INDIGESTION—*continued.*

days till the bowels act freely. Give bran mashes, carrots, malt, &c.; good sound hay, roots, and green food are also essential. Sprinkle the food with "**Hewthorn's Blood Purifying Salt**," and mix it in the animal's mash for a week or ten days after convalescence; and use "**Hewthorn's Thriving Mixture**" regularly to prevent future attacks and improve digestion generally.

CONSTIPATION IN CATTLE & CALVES.

Where this is noticable, give a dose of "**Hewthorn's Laxative Carminative Oil**," or a "**Hewthorn's Purging Drench**," according to the age of the animal, repeating two or three times daily until the bowels act freely. Occasional enemas of hot water and soap injected into the rectum will hasten the action of the medicine. To prevent constipation recurring, "**Hewthorn's Thriving Mixture**" should be given regularly in all the food.

COLIC IN CATTLE.

Definition.—A similar complaint to that seen in the horse. Due to spasmodic contraction of the muscles of the intestines.

Causes.—Disengagement of gases from undigested food, or from some irritant matter that has been partaken of.

Symptoms.—Colicky pains, manifested by the animal striking the belly with the hind feet; restlessness, lying down and getting up frequently. The pain is not continuous but periodic.

COLIC—*continued.*

Treatment.—Give a "**Hewthorn's Gaseous Black Drink**" in a quart of warm gruel or warm water and repeat in half an hour if pain is not allayed, giving as well a wine-glassful of "**Hewthorn's Sedative Extract.**" Hot rugs tied round the belly help to relieve the pain. When the acute symptoms disappear, give a "**Hewthorn's Yellow Purging Drench.**" Much food should not be given as it may have a tendency to ferment.

OBSTRUCTION OF THE BOWELS.

Definition.—This is a condition usually due either to a twist in the bowels (known as "gut tie"), or to some mechanical cause of obstruction.

Causes.—Dust, hair or wool balls, or other foreign substances becoming wedged in the bowels. Kicks or blows may produce swelling and thus cause obstruction.

Symptoms.—Complete stoppage of all discharge from the bowels, and excessive pain. The belly swells, the ears and horns become cold, and the breathing is laboured and difficult.

Treatment.—This complaint is very frequently fatal. A dose of "**Hewthorn's Sedative Extract**" in a pint of linseed oil, should be given every two hours to allay the pain and move the bowels; and copious enemata of warm water should also be injected into the rectum every second hour. Continue this treatment till relieved. In some instances a spoonful of tobacco tea mixed in the enema has, by producing extreme nausea, led to the loosening of the "tie," and so caused immediate relief.

HOVEN—HOVE—BLOWN—TYMPANITIS— DISTENTION OF THE RUMEN.

Definition.—Distention of the rumen or first stomach, arising from gases generated by the fermentation of food therein. Pressure on all surrounding organs, leading to suffocation, rupture, &c., unless relieved. For illustration of the stomachs of the Ox (see page lxix.).

Causes.—These are numerous, but the most frequent is free feeding on over-succulent food liable to fermentation, such as wet grass or rich clover, rape, turnips, &c.



A Case of Hoven.

Symptoms.—These are very evident. Great distention of the abdomen, especially on the *left* side. The belly sounds like a drum when struck. The breathing becomes difficult, and there is great pain, and danger of suffocation and rupture.

Treatment aims at stopping further fermentation and dispersing the accumulated gas. Immediately the animal shows signs of uneasiness, give a full dose of "**Hewthorn's Gaseous Black Drink**" combined with a wineglassful of "**Hewthorn's Antifebrile Stimulant**" in a pint of warm water or gruel. Keep the animal warm and comfortable, and repeat the dose in twenty minutes, if relief is not afforded. In the case of a young Heifer give half the dose. If the animal is costive or bound, give one of "**Hewthorn's Yellow Purging Drenches**" in a quart of oatmeal gruel with one pound of treacle mixed in it, repeating the dose in twelve hours if

DISTENTION OF THE RUMEN—*continued.*

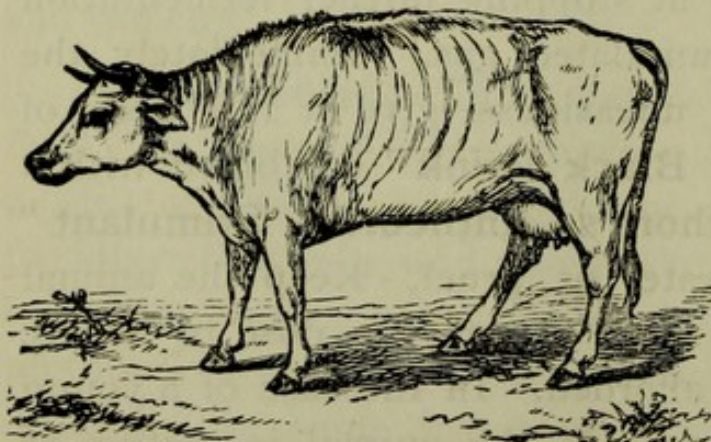
the bowels are not then acting freely. Where suffocation seems likely to take place, owing to extreme distention, do not hesitate to insert a trocar and canula (see page lxix.), the point most suitable being situated midway between the projection of the hip bone and last rib; a span of the hand all four ways generally being the best guide as to the situation. "**Hewthorn's Thriving Mixtures**" should be given daily after Hoven, to prevent a recurrence of the attack.

IMPACTION OF THE RUMEN, or FIRST STOMACH—MAW BOUND—GRAIN SICK.

Definition.—An accumulation of food in the rumen or first stomach, blocking that organ and stopping digestion.

Causes.—Overgorging with food, especially grain or wet rich grass, &c.

Symptoms.—Rumination ceases, the animal



Impaction of the Rumen, or first Stomach.

breathes hard, and grunts with pain; is restless and grinds its teeth, and there is fullness and swelling of the left side, which feels full of food and hard when pressed. This distinguishes it from "Hoven," in

which the side sounds hollow when struck, and feels drum-like when pressed.

IMPACTION OF THE RUMEN—*continued.*

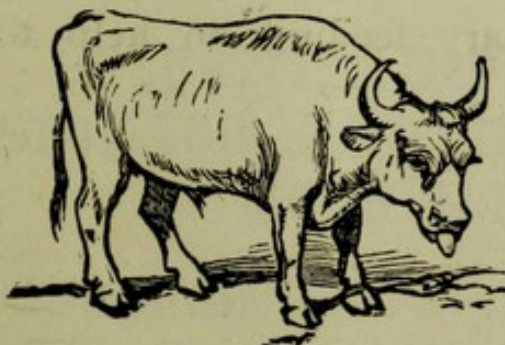
Treatment.—Give at once a “**Hewthorn’s Yellow Purging Drench**” and a pint of linseed oil in one quart of gruel. This may be repeated in six hours if necessary. Fifteen minutes after the Drench, give a dose of “**Hewthorn’s Gaseous Black Drink**,” and another every two hours until the animal is relieved. If this does not occur in twelve hours, it is wise to send for veterinary aid; as, in such cases, the rumen usually requires to be opened and the food extracted; and this had better be done by a practical veterinary surgeon. Feed on light food, easily digested, and having a tendency to keep the bowels open.

IMPACTION OF THE OMASUM, or THIRD STOMACH—STOMACH STAGGERS—CLUE BOUND—FARDEL BOUND.

Definition.—Stoppage of the third stomach by undigested food; followed by congestion and inflammation of the fourth or true stomach (the abomasum).

Causes.—Overfeeding; hurriedly eating succulent grasses, spring grass, clover or green corn. Eating poisonous weeds, herbs, &c., may also cause it.

Symptoms.—There is loss of appetite, pain, loss



Impaction of the Omasum, or Third Stomach.

of cud, quickened pulse and breathing; the dung is dry and offensive. The animal grunts, strains, and sometimes passes blood with the watery dung; and a hard swelling, due to the impaction, may be detected on the right side. These symp-

IMPACTION OF THE OMASUM—*continued.*

toms are followed by great nervous excitement, shown by madness, glaring eye, and staggers or fits.

Treatment.—First give a wineglassful of "**Hewthorn's Sedative Extract**" in gruel, to allay the pain; repeating this every two hours. Ten minutes after the first dose of Sedative Extract give a "**Hewthorn's Yellow Purging Drench**," mixed with three-quarters of a pint of linseed oil and three-quarters of a pint of gruel, repeating the Drench in twenty-four hours, but using treacle instead of oil the second dose, until the bowels are opened moderately. Warm water and soap enemas, with a little oil added, should be injected every half hour, in addition to giving the Drenches as above, until the bowels act well. Keep the animal quiet and comfortably clothed; and give plenty of milk and water or oatmeal gruel to drink. After the third day, a dose of "**Hewthorn's Carminative Laxative Oil**" may be given, if the bowels have still a tendency to be constipated. Give a tablespoonful of "**Hewthorn's Antifebrile Stimulant**" in the gruel three times in every twenty-four hours to assist recovery. As soon as the appetite returns give sparing feeds of succulent diet, grass, sweet hay, boiled turnips, carrots, &c.; and "**Hewthorn's Thriving Mixture**" or "**Conditioning Powders**" should be mixed in the daily food for a few weeks, when returned to ordinary feeding, to help to complete the animal's recovery.

URTICARIA—BLAIN—NETTLE RASH— SINGE—STINGE—SURFEIT.

Definition.—An irritable condition of the skin producing numerous small swellings, due to disordered condition of the blood.

Causes.—Usually, sudden change from poor to generous diet. Plethora. General derangement of digestion.

Symptoms.—Numerous small swellings, especially in the loose soft parts of the skin, which itch intensely and are hot, but not tender.

Treatment.—Give every affected animal a dose of “**Hewthorn’s Purging Drench**” in water gruel, and give a “**Hewthorn’s Fever Drink**” at night, and a dose of “**Hewthorn’s Antifebrile Stimulant**” in the morning for a week. Repeat the “**Purging Drench**” on the fourth day if the bowels are not acting freely. Bathe all parts affected three or four times a day with one part of “**Hewthorn’s Cooling Lotion**” mixed with seven parts of vinegar and water; and feed on gruels, mashes, soft green food, &c., till cured.

ENTERITIS—INFLAMMATION OF THE STOMACH AND INTESTINES—PANTAS— MOOR ILL—WOOD EVIL.

Definition.—The two first titles define the nature of this disease, which is really irritation of the abomasum or fourth stomach and of the intestines.

ENTERITIS, &c.—*continued.*

Causes.—Overloading of the stomach, due to overgorging with rich rank herbage, or with deleterious leaves, weeds or plants (hence the terms “wood evil,” “moor ill,” &c.). Sudden changes from green to dry hard food will cause it; and in this way it may effect whole herds.

Symptoms.—Constipation, dulness, staring coat and depraved, irregular appetite. Quick, hard breathing, varying pulse, and yellowish-red, dry, inflamed mouth and eyes; thirst, pain in the belly; and “hoven.” Hard, dry, slimy dung, occasionally coated with blood, and scanty, high-coloured urine. In the cow, the milk yield fails; stiffness, moaning, tenderness at the loins, slow pulse, chilliness, and dysentery set in, with rapid loss of flesh, terminating in death.

Treatment.—Give a “**Hewthorn's Yellow Purging Drench**” mixed with a pint of “**Hewthorn's Laxative Oil**” in a pint of gruel; and inject a soap and water and oil enema with a tablespoonful of turpentine in it, every four hours, until the bowels act. Give one bottle of “**Hewthorn's Gaseous Black Drink**” in a quart of gruel twice every day. If great pain be evident, give “**Hewthorn's Sedative Extract**,” half doses every four hours, till relieved. Regulate the action of the bowels by repeating the “**Yellow Purging Drench**” if necessary. Give laxative diet, linseed and oatmeal gruel; and change the pasture.

INFLAMMATION OF THE KIDNEYS IN CATTLE.

Causes.—Chill due to exposure, strains, blows on the loins, too free use of turpentine, cantharides, croton oil, or other kidney irritants. Unsound or deleterious food will sometimes cause it.

Symptoms.—Restlessness. Straining, and small forcible discharges of urine. The urine is thick, dark coloured, and soon mixed with blood. The loins become tender, arched and swollen, and the hind legs are straddled apart. Appetite and rumination fail; fever increases, with dry nose and skin; cold horns, quickened breathing, offensive perspiration, and diarrhœa, succeeded by constipation, occur; and finally, general collapse and death.

Treatment.—Foment the loins with hot water every two or three hours, and rub over with "**Hewthorn's Matchless Embrocation**," keeping them warmly covered with skins or thick rugs. Give a half-pint of linseed or castor oil, and inject an enema of thin warm gruel every three hours till the bowels act freely. Give, every four hours, a dose of "**Hewthorn's Sedative Extract**" mixed with a dose of "**Hewthorn's Antifebrile Stimulant**" in a pint of linseed gruel. Reduce this to every six or eight hours till relief is well established, when the "**Sedative Extract**" may be stopped, and doses of "**Antifebrile Stimulant**" alone given twice daily. Feed on gruels, soft food and green meat only.

RETENTION OF URINE.

Causes.—Inflammation or contraction of the neck of the bladder, or of the passage; stone, paralysis, spasm, pressure of the contents of the bowels on the parts, foul sheath, &c.



Symptoms.—Useless straining to pass water, restlessness, rising and lying down, groaning and anxious looking at the flank. Quickened pulse, staring coat, fever, wasting, &c, follow.

Treatment.— Give a “**Hewthorn’s Purging Drench.**” in a pint of linseed gruel mixed with a dose of “**Hewthorn’s Sedative Extract.**” Inject into the rectum an enema of a pint of warm thin linseed gruel, with a tablespoonful of “**Hewthorn’s Soothing Ointment**” melted in it, every three hours, and retain it in the rectum as long as possible. If a cow, anoint the neck of the bladder (within the vagina) with “**Hewthorn’s Soothing Ointment.**” Continue this treatment till relieved; also give a dose of “**Hewthorn’s Sedative Extract**” once or twice daily as long as any pain continues; and also give a “**Hewthorn’s Fever Drink**” or a dose of “**Hewthorn’s Antifebrile Stimulant**” daily till cured. If urine is not passed within a few hours a Veterinary Surgeon’s aid must be had, and a catheter used.

INCONTINENCE OF URINE.

Definition and Symptoms.—Constant dribbling of urine.

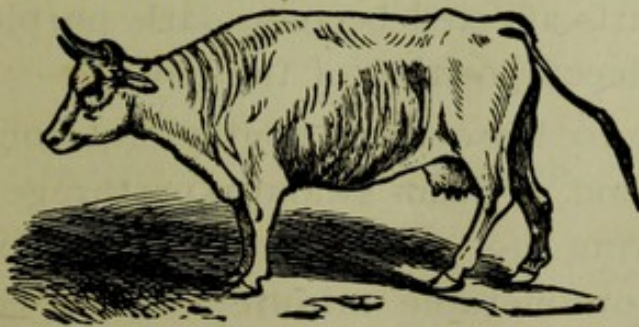
Causes.—Acrid, unhealthy urine; irritation or relaxation of the bladder or of the passages therefrom.

Treatment.—Give thin oatmeal or linseed gruel to drink, and give a dose of “**Hewthorn’s Purging Drench.**” Feed on light digestible food, and give half doses of “**Hewthorn’s Purging Drench**” every third day for a fortnight or so. See the drinking water is quite pure.

RED WATER—BLACK WATER—BLOODY URINE—HÆMATURIA.

Definition.—A diseased condition shown by the passage of reddish, chocolate coloured, or black urine. It is common in spring and autumn.

Causes.—It is peculiar to some districts and on particular pasture lands. Changing the animal from rich to poor land; ill drained soil; and poor feeding are the most frequent causes of attack. Cows a few weeks after calving, or when fed on turnips grown on swampy land, are liable to it.



Red Water.

Symptoms.—The dark colour of the urine is the most notable symptom. There is great prostration, a rapid pulse, and, at first, diarrhœa, followed

later on, by obstinate constipation. In Cows after

RED WATER, &c.—continued.

calving there is loss of milk, and the vagina seems contracted; the back is arched, the legs, horns, and ears are cold, and the patient is dull and listless.

Treatment.—As the complaint generally arises from poor or insufficient food, it is essential to put the animal on sound and abundant but digestible diet. Act on the bowels by giving a "**Hewthorn's Yellow Purging Drench**" in gruel, mixed with half a pound of treacle. Repeat in twelve hours if the bowels do not act freely. Give a dose of "**Hewthorn's Red Water Remedy**" every morning, noon and night till symptoms disappear. When recovering, half-bottle doses of "**Hewthorn's Gaseous Black Drink**" should be given daily in warm gruel or ale for several days. Half an ounce of CHLORATE OF POTASH placed in the drinking water daily is also beneficial, and let "**Hewthorn's Thriving Mixture**" or "**Conditioning Powders**" be used twice daily for two or three months after the above treatment is complete.

**BLACK QUARTER—QUARTER EVIL—
BLACK LEG—CHARBON, &c.**

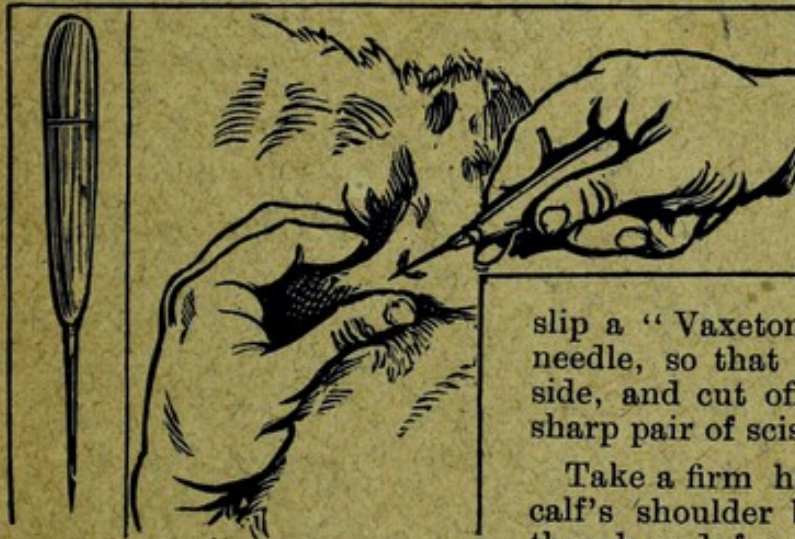
Definition.—A contagious, malignant blood disease, most frequently seen in Cattle, but communicable to all domestic animals. The parts affected become dark purple or nearly black, owing to decomposition of the blood.

Causes.—It is said to arise from contagion, from eating spoiled or tainted food, or from swampy pasturage: and is most frequent during hot damp weather, and in summer and autumn. Innumerable minute rod-shaped vegetable organisms, resembling "**BACILLUS ANTHRACIS**," are found in the blood of animals attacked by it.

Prevention of Black Leg.

Recent investigation has shewn that BLACK LEG can be almost certainly prevented by treating all calves, when they are about 6 months old, with

HEWTHORN'S "VAXETONS," as follows:—



Put a headstall on the calf, and get an assistant to hold it firmly by the head, and then proceed as follows:—

After screwing the operating needle tight into the handle,

slip a "Vaxeton" under the slot in the needle, so that half hangs out on each side, and cut off the metal tag with a sharp pair of scissors.

Take a firm hold of the skin on the calf's shoulder between the left hand thumb and forefinger, and lift it away

from the flesh. Now push the needle (with the slot turned towards the animal) into the lifted fold of skin, *between* the skin and the flesh (*but don't penetrate the flesh*) until both ends of the "Vaxeton" have entirely disappeared; withdraw the needle, and the "Vaxeton" will remain entirely buried under the skin, where it must be left.

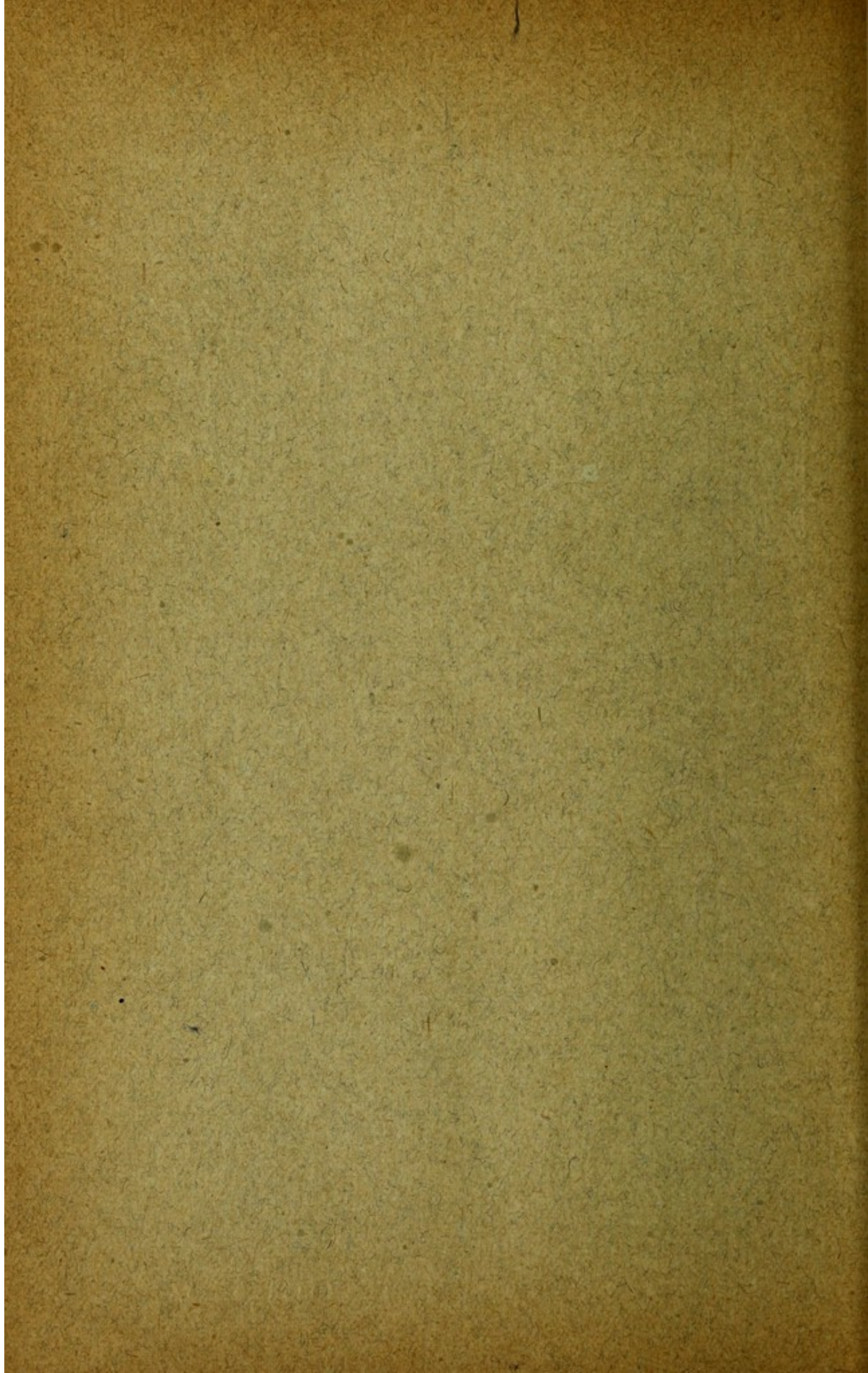
Sheep can be "Vaxetoned" on the inside of the thigh.

Always cleanse and disinfect the needle before and after use, by boiling it for two or three minutes, and afterwards letting it stand for ten minutes in the bottle of Disinfecting Fluid we send with the needle.

Keep the "Vaxetons" thoroughly dry, and be most careful not to rub or shake any of the powder off them, as this weakens their protective power and value.

It requires eight or ten days for the "Vaxeton" to thoroughly impregnate the system, and during that time the shoulder is sore, and the animal appears out of health generally, for (as with all inoculation treatments) the subject is then really undergoing a very mild form of the disease, and is thereby being rendered proof against the fatally dangerous form. It is, of course, unnecessary to say it is *useless* to treat an animal that has already got "Black Leg," as it is then usually past cure. The only thing then is to instantly treat all the rest of the herd and flock with a view of preventing them contracting it; but if Black Leg actually exists in the herd, deaths may continue to occur during the above-named period even after treatment.

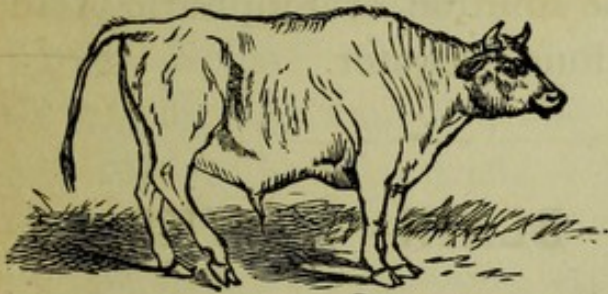
Calves and sheep should be treated as above every year from the time they are six months old till they are 2½ years old, about six weeks before the time the disease usually shows itself in the locality.



BLACK QUARTER, &c.—*continued.*

The percentage of cases in which a cure is effected is not large; therefore, prevention must be the great aim.

Symptoms.—An animal attacked becomes languid, the ears drop, the pulse is rapid and weak (from 80 to 120 beats per minute), and the mouth and nose are dry and hot. Swellings shortly appear about the brisket, head, loins, neck or legs. They are painful and cause stiffness;



Quarter Ill, or Black Leg.

and the animal refuses to move, or to get up if down. The appetite is lost, the bowels are constipated, and the urine is scanty and dark in colour. The swellings soon become

cold, and dark or nearly black in colour, as if mortified. The eye is fixed and staring, the breathing shallow, and the animal becomes rapidly weaker, and often dies in convulsions.

Treatment.—This must be prompt. First, to prevent infection, remove all healthy animals, and give each a "**Hewthorn's Yellow Purging Drench**" in gruel, and repeat in four days. Do not suddenly change the calves from poor to rich soil. Overfeeding in the summer months and poor food during the winter tends to cause this malady; so that animals should be fed reasonably well through the winter, and "**Hewthorn's Thriving Mixture**" for young animals should be used, as this improves health and stamina. Periodically give a "**Hewthorn's Yellow Purging Drench**" to each animal (say once a fortnight), so long as any signs of "Quarter Ill" exist in the herd. A seton inserted in the dewlap and smeared with some irritating ointment, and turned

BLACK QUARTER, &c.—continued.

daily, is *said* to be very efficacious as a preventive measure. (See page lxxvii.).

When an animal is actually attacked, treatment is of little avail. All animals that die of this disease should be buried, as the flesh is poisonous to man and beast. When the disease becomes epidemic, fumigation with sulphur is indicated, and all fodder or pastures should be sprinkled with very weak solution of Sulphuric Acid—one teaspoonful to two gallons of water.

GLOSS-ANTHRAX—BLAIN—HAWKS.

(*N.B.*—The name “Blain” is given to Urticaria as well as to Gloss-Anthrax. See page 153).

Definition.—An eruption of watery blisters on the mouth, lips, and tongue.

Cause.—An unhealthy, congested state of the blood.

Symptoms.—Blisters on tongue, inside of lips and mouth, which quickly enlarge and burst, discharge matter (often bloody and offensive), and leave ulcerous sores. There is copious saliva discharge, difficult breathing, and high fever. The disease is often fatal, unless promptly treated.



Gloss-Anthrax.

GLOSS-ANTHRAX, &c.—continued.

Treatment.—Isolate affected animals at once. Give each a “**Hewthorn’s Purgative Drench**” in a quart of gruel, and repeat often enough to keep the bowels freely acting. Open the blisters carefully with a clean knife-point, and mop them three times a day with “**Hewthorn’s Wound Lotion**” and water mixed in equal parts. Give daily also half a dose of “**Hewthorn’s Antifebrile Stimulant**” and half a dose of “**Hewthorn’s Fever Drink**” mixed together in a quart of water. Feed on gruels, hay tea, &c., and then on mashes, green and soft food only till cured. Do not let the attendant go amongst other stock, or get the saliva on any sore place on his hands or person; and insist on his thoroughly washing his hands after every attendance.

**DIARRHŒA—SCOURING—DYSENTERY—
BLOODY FLUX—SCOURING ROT.**

This disease, in the Horse, has been described at page 34, Horse Section. It is, however, more frequently seen in Cattle and Sheep.

Causes.—Irritation of the bowels, arising from indigestible food, worms, strong purgatives, diseases of the liver, or constitutional tendency.

Symptoms.—In the *acute* form there is excessive thirst, shivering, arching of the back, and tenderness about the loins. The animal grunts, grinds its teeth, periodically discharges thin, bad smelling dung mixed with blood, is dull and stupid, and rapidly loses flesh.

DIARRHŒA—*continued.*

In the *chronic* form, the animal becomes very thin, and the dung is bloody and fœtid. The eyes sink in the head, dropsical swellings occur in different parts of the body and, finally, the animal succumbs to exhaustion.

Treatment.—In either form the diet must be changed. First give a "**Hewthorn's Yellow Purging Drench**" and half a pint of Castor Oil to assist in ridding the bowels of any irritant that may be present. Repeat the Drench in two days if the bowels are not then acting freely and in a more natural way, and if the febrile disturbance is not allayed. In addition to giving the drench, give two or three half doses daily of "**Hewthorn's Gaseous Black Drink.**" Where there is much pain give also a dose of "**Hewthorn's Sedative Extract**" daily. In obstinate cases give two to four tablespoonfuls of "**Hewthorn's Scouring Remedy**" in flour gruel twice daily.

The diet must consist of easily digested nourishing foods frequently given, and flour gruel, thin soups and milk should be given freely. The ventilation and cleanliness of the byres is also of great importance in assisting in the recovery of the animal.

A good diet while weakness is excessive consists of—

Cod Liver Oil, 2 to 4 ounces.

Fresh Eggs 4 to 5.

Mix thoroughly in a quart of fresh milk and give twice daily.

When the animal is convalescent give "**Hewthorn's Thriving Mixture**" mixed in the provender for a few weeks, as it imparts healthier tone to the digestive organs, and is of great general benefit.

ANÆMIA OF CATTLE—HOLLOW HORN— HORN-AIL.

Definition.—An unhealthy condition of the blood with deficiency of red corpuscles.

Causes.—Anæmia frequently follows exhausting diseases, or it may be due to insufficient or inferior food, exposure, neglect, bad ventilation, &c.

Symptoms.—General debility, and poorness of condition. The animal is hide-bound with staring coat. The appetite may be voracious or irregular; the bowels may be loose or constipated; the dung is offensive, and there is considerable flatulence. The pulse is feeble and the animal is dull. The mucous membranes in the mouth are pale, and the horns are quite cold; these being the characteristic symptoms.

Treatment.—The animal must be well fed, and the food varied and easily digestible, and it must be given frequently and in small quantities. Give at once one of "**Hewthorn's Gaseous Black Drinks**" in gruel sweetened with treacle; and a half bottle every other day for a fortnight. After this, good feeding, shelter, warmth, and an occasional "**Hewthorn's Cordial Drench**" given in gruel will generally effect a cure. "**Hewthorn's Thriving Mixture**" or "**Hewthorn's Conditioning Powders**" should be given for some weeks after recovery, to establish better general condition and stamina.

SORE TEATS.

(See also remarks on "Cow Pox," following this.)

Treatment.—Foment the teat, night and morning, with warm water containing one-tenth part of "**Hewthorn's Detergent Lotion.**" Dry carefully, and afterwards smear lightly with "**Hewthorn's Healing Jelly,**" or "**Hewthorn's Healing Oils.**" (This treatment adopted at once when a cow flinches at milking will prevent sores forming). Give a "**Hewthorn's Cleansing Drench,**" and feed sparingly, but on nutritious, easily digested food. If the sore closes the teat, the milk must be drawn off with a teat syphon. *Always* wash the hands *thoroughly* after touching sore teats, or other cows will soon be infected.

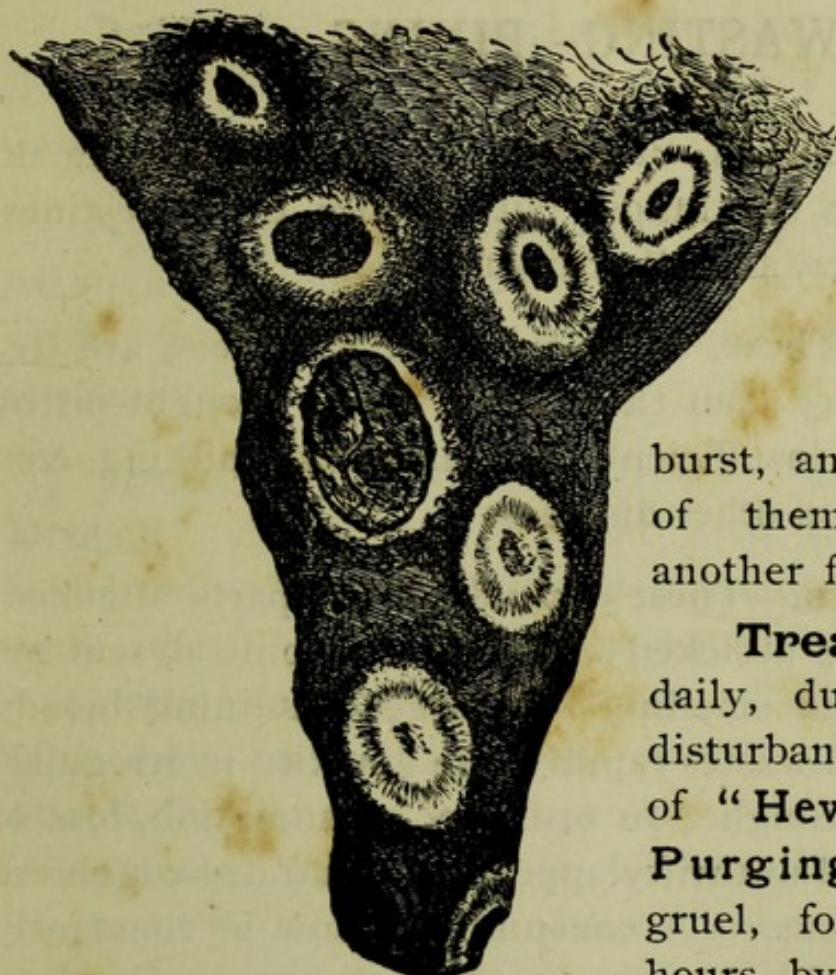
COW POX—VARIOLA VACCINA.

Definition.—A contagious fever, showing by eruption; first pimples, then small watery blisters (vesicles), next pustules, and finally scabs. It is the equivalent of human small pox.

Causes.—Inoculation is the only cause positively known, although it is said to appear "spontaneously." It is not generally fatal or even dangerous.

COW POX—*continued.*

Symptoms.—Fever for a few days, when pimples



Cow Pox.

make their appearance on the teats, udder and belly; the milk lessens and the appetite fails a little. Groups of vesicles form,

burst, and dry up—crops of them following one another for several weeks.

Treatment.— Give daily, during the febrile disturbance, half a packet of "**Hewthorn's Yellow Purging Drench**" in gruel, followed, in three hours, by a "**Hewthorn's Fever Drink.**" Bathe the

affected parts daily, and carefully dry them, after which anoint them with "**Hewthorn's Black Healing Oils.**" Feed lightly on easily digested food. If the point of the teat is sore, draw off the milk with a teat syphon. *The milker must be careful to always disinfect his hands before milking another animal.* Disinfect the stables and sheds with "**Hewthorn's Disinfectants.**" When convalescent, give "**Hewthorn's Conditioning Powders**" for some weeks to help to complete recovery.

CONSUMPTION—TUBERCULOSIS— WASTING—PINING.

Definition.—A tuberculous disease attacking, in Cattle, not only the lungs, but usually the intestines, serous membranes, and other tissues also.

Causes.—These, as in the human subject, are frequently hereditary; but the disease is also brought on by neglected colds, insufficient food, excessive milking, &c., or it may follow on other diseases.

Symptoms.—These depend on the parts attacked. If the bowels are attacked it leads to chronic dysentery, with offensive bad smelling discharge containing bloody pus. The animal wastes rapidly, the appetite is irregular, and there is dry cough. In ordinary consumption, loss of condition, general unthrifty appearance, and dry cough are the usual symptoms. A consumptive Cow is constantly “bulling,” the milk becomes thin, and watery diarrhoea sets in, soon ending in death.

Treatment.—Cows should not be milked, and Oxen should be fed with fattening foods, oil cake, sound hay, and ground corn; avoid roots and grasses. The best course is certainly to fatten and slaughter. A course of “**Hewthorn's Cordial Drenches**” should be given. The milk must not be used unless boiled, and the flesh of an animal so affected must be thoroughly cooked. No calves should be reared on or from a tuberculous cow, as the disease is hereditary; and should *the udder* be tuberculous the milk must not be sold or used, as it will communicate the disease to human beings.

FELON—RHEUMATISM—JOINT FELON.

This disease is essentially the same as that seen in the Horse (see page 71), and the cause and treatment in Cattle are much the same.

Symptoms.—Stiffness, swelling of the joints, unwillingness to move, somewhat costive bowels, and scanty urine. In the worst cases, abscesses form in the muscular tissue, and pus is discharged

Treatment.—Give at once a “**Hewthorn’s Felon Drench**” in gruel sweetened with treacle. Rub the joints well with “**Hewthorn’s Matchless Embrocation**” daily. The bowels are to be kept regular by repeating “**Hewthorn’s Felon Drench**” as often as required. Give daily half bottle doses of “**Hewthorn’s Gaseous Black Drink**,” to which a tablespoonful of “**Hewthorn’s Antifebrile Stimulant**” is to be added. The animal ought to be comfortably clothed and housed, and a plentiful supply of bedding allowed. Where suppuration of the joints occurs, it is rarely worth treating the disease; in fact, in such cases, the animal ought to be slaughtered at once.

WEAK, STIFF JOINTS OR MUSCLES.

Treatment.—Bathe well daily with cold water, rub thoroughly dry, and every other day rub in “**Hewthorn’s Matchless Embrocation**.” This usually cures in a week or two, and may then be discontinued.

FOUL IN THE FOOT—FOUL CLAW— LOO OR LOW.

Definition.—An inflammation and suppuration of the substance between the cleft of the foot, producing lameness and febrile disturbance, with loss of condition.



*How to apply
Dressings
to the Foot.*

Causes.—Overgrowth of the hoof; irritation due to grit, pebbles, thorns, dirt, or other foreign substances, &c.

Treatment.—Clean the parts thoroughly with warm water, and apply a bran or linseed poultice. Cut down any ragged horn that may be present, after which dress the affected parts with "**Hewthorn's Black Healing Oils,**" applied on a bandage, as per illustration. Keep the animal on clean dry bedding and away from gritty, sandy, loose or muddy soil. Dress daily until cured.

TUMOURS—HARD SWELLINGS, &c.

The same treatment as described on page 110 may be advantageously followed, substituting a half dose every other day of "**Hewthorn's Purging Drench**" in a quart of gruel instead of giving "**Blood Salt.**"

ANGLEBERRIES—WARTS.

Definition.—Rough excrescent growths on lips, teats, eyelids, &c.

Causes.—Dirt usually, but sometimes they are constitutional.

Treatment.—Tie a piece of strong waxed thread tightly round the base of the wart, and tighten it a little daily. When the warts drop off, apply "**Hewthorn's Styptic Dressing**" till healed. If they are very numerous, cut them off carefully with a keen knife, and dress the sores as above. If feverishness occurs, give a "**Hewthorn's Cleansing Drench.**"

POOR CONDITION—OFF FEED— HIDE BOUND.

Causes.—Generally insufficient, indigestible, or inferior food. (See also "Anæmia," page 163.)

Treatment.—Change the food and give succulent, nourishing, and digestible diet. Give the animal a "**Hewthorn's Cordial Drink**" daily for three days, and then "**Hewthorn's Cordial Drench**" (half a dose daily) for a fortnight. Mix "**Hewthorn's Thriving Mixture**" in each feed regularly afterwards, as it prevents a recurrence of bad condition by ensuring better digestion. The benefit obtained much more than repays the expense, and it should never be omitted with poor unthrifty animals.

WEAKLY AILING STOCK.

Treatment.—Animals weak from illness are greatly helped to quickly recover strength by daily half doses of “**Hewthorn’s Cordial Drink**” or “**Hewthorn’s Cordial Drench**,” with a wineglassful of “**Hewthorn’s Cod Liver Oil**,” in gruel. They should also have “**Hewthorn’s Thriving Mixture**” in every feed as directed above.

CHOKING.

Definition.—Obstruction of the gullet, owing to some solid substance becoming lodged therein; such as a potato, apple or turnip, dry fodder, &c.

Symptoms.—Violent efforts to swallow; the throat and neck are spasmodically drawn up; the animal coughs, saliva falls from the mouth, and fluid pours down the nostrils from the animal’s efforts to dislodge the obstacle. The expression of the face is distorted, and the body breaks out into a cold sweat.

Treatment.—If the obstacle can be reached, place a gag in the mouth, insert the arm or forceps, and endeavour to withdraw the obstruction through the mouth. Failing this, pour a very little linseed oil (not enough to choke), mixed with two tablespoonfuls of “**Hewthorn’s Sedative Extract**” down the throat and manipulate the outside of the throat, where the obstruction is visible, gently up and down. The oil and the manipulation often enable it to be swallowed. Should this fail, a probang (see pages lxviii. and 109) must be used to push the offending substance down into the stomach,

CHOKING—*continued.*

in the following manner:—1st. Raise the nose, extend the head and neck, and keep them in a straight line. 2nd. Oil the probang and push it gently down the gullet, and press gently against the obstacle, avoiding injuring the gullet or passing the instrument into the windpipe. Use the probang with care and only intermittently. Should this not succeed, the gullet must be cut from outside, the obstruction removed, and the gullet stitched up again. Professional aid must be had for this. After an attack of choking, only thin mashes, gruels, &c., must be given till the surface of the throat is quite healed.

INFLAMMATION OF THE EYES.

The Causes and Symptoms are the same as described on page 122, Horse Section.

Treatment.—Give a “**Hewthorn’s Purging Drench**,” and treat the case in all other respects as directed on page 122.

LICE, TICKS, & OTHER VERMIN.

Cattle, Cows, and Calves in poor condition are very frequently infested with lice, which propagate very rapidly and soon attack other stock. Immediate attention ought to be given to eradicating these pests wherever seen. The stables and barns must be thoroughly washed, and then whitewashed; and all posts, stones, and other “scratching places” painted with crude petroleum or gas tar. Scrub the parts affected on each animal with soap and water,

LICE, &c.—continued.

and smear well with "**Hewthorn's Antiparasitic Skin Lotion**" twice daily. If in poor condition, give "**Hewthorn's Red Conditioning Powder**" in a bran mash night and morning for a week or ten days. An occasional "**Hewthorn's Yellow Purging Drench**" is also indicated. The stables ought to be well fumigated, and disinfected with "**Hewthorn's Disinfecting Fluid.**"

CONTAGIOUS DISEASES.

**RINDERPEST—FOOT & MOUTH DISEASE—
PLEURO-PNEUMONIA—ANTHRAX.**

RINDERPEST (Cattle Plague, Contagious Enteric Fever); PLEURO-PNEUMONIA (Contagious Lung Fever); FOOT AND MOUTH DISEASE (Murrain, Epizootic Aphæ, Contagious Eczema); and ANTHRAX (Splenic Apoplexy, Splenia, Texas, or Spanish Fever) are all scheduled under the Contagious Diseases Act, and no curative treatment may be attempted. Cases must be at once reported to the Police, under heavy penalty, and the instructions of the local authorities strictly carried out. For farmers guidance, however, we give some of the various

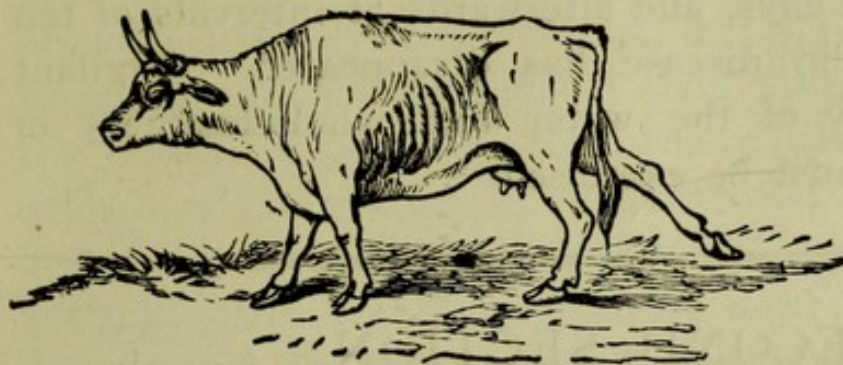
Symptoms.

RINDERPEST.—Fever at first, foul breath, mouth and mucous membranes hot and inflamed, and showing small pin-head blisters. In two to four days the pulse slows, discharge begins at nose, mouth and eyes, ears and head droop, and breathing is laboured; great weakness exists,

CONTAGIOUS DISEASES—*continued.*

temperature is low, and death usually follows by the seventh day.

FOOT AND MOUTH DISEASE.—Increased temperature,



Foot and Mouth Disease.

with eruption of small blisters on the tongue, inside the lips, on the heels, coronets, and clefts of the feet, and occasionally on

the udder; lameness also exists. Mouth and the eyes run with water, and swallowing is difficult. The blisters break leaving a raw surface.

PLEURO-PNEUMONIA.—First, rise in temperature to 103° - 106° . Next, staring coat, slight shivering, loss of appetite, dry hard cough, constipated bowels, scanty milk and scanty high coloured or dark urine. In a few days, tenderness on pressure between the ribs over the lungs. The cough gradually becomes worse, the breathing quickens and becomes harsh and rough; and, when standing, the elbows are turned outwards, the nose extended, the back arched, and the hind legs drawn under the body, There may be obstinate constipation or watery, foetid diarrhoea.

ANTHRAX. — First, general fever and uneasiness, internal pain, quickened breathing, and listless staggering walk; followed by bloody discharges from mouth, vulva, and anus; paralysis, delirium, and death. Frequently the first warning the farmer gets is finding one or two animals dead.

CONTAGIOUS DISEASES—*continued.*

When any of the above diseases occur, all animals that the police will allow to be removed, should be drenched at once with "**Hewthorn's Purging Drench**," and again in two days, and afterwards at intervals of ten days or so till the disease has disappeared. Vigilant care as to purity of the water and wholesomeness of the food given must be exercised.

SECOND SECTION.**DISEASES INCIDENTAL TO CALVING.**

**MEDICAL TREATMENT OF COWS
BEFORE CALVING.**

It is essentially important that, about a month before calving, the Cow should be placed in a comfortable roomy yard, and well bedded with clean straw. Food of an easily digestible character should be given, and the bowels regulated by giving a "**Hewthorn's Red Drench**" once a fortnight, in warm gruel mixed with a pound of treacle. Three or four days before calving a third "**Red Drench**" should be given. A small quantity of milk ought to be drawn daily from the cow for a few days prior to delivery, and a clean comfortable place should be set aside for her to calve in.

Should the cow be in poor condition, two half bottle doses of "**Hewthorn's Gaseous Black Drink**" should also be given in warm gruel, one four days and one two days before calving.

BARRENNESS or STERILITY.

Causes.—This may arise either from constitutional or accidental causes, from imperfect development, tumours, organic disease, over feeding, &c. With high priced breeding animals every effort should be made to remedy the defect, if possible; but where there is incomplete growth of the ovaries, or malformation of the generative organs, it is better not to attempt to breed from the animal. Accidental barrenness, however, is not infrequent, and is very generally accounted for by either overfeeding, or improper food or exercise.

Fatty and sweet food, such as oilcake, &c., has a tendency to produce fatty degeneration of the ovaries, and, as a result, permanent sterility. Causes of the opposite kind, are delicate constitution, overmilking, wasting disease, or poor and innutritious food.

Breeding animals should be kept in good but not in high condition. Cows sometimes prove not to be in calf owing to the bull being either excessively fat, or old, or through his genital organs being overtaxed or impaired. In such a case the Cow should be served by a different bull. In and in breeding is also a frequent cause of sterility.

Treatment.—When due to overfeeding, a “**Hewthorn’s Yellow Purging Drench**” in gruel is indicated, repeated three times at intervals of a week. When the cause is supposed to be due to poorness of blood, the animal should have a richer quality of food, and “**Hewthorn’s Blood Purifying Salt**” and “**Hewthorn’s Cordial Drenches**” given on alternate days.

ABORTION—SLINKING—SLIPPING— PICKING—DROPPING THE CALF.

Causes.—These are numerous—amongst the most common are unhealthy, frosty, or mouldy food, ergot in the grasses, debility, foul water, blows, violent purges, &c. An aborting Cow should not again be put to the bull, but should be dried off, fattened, and killed.

Symptoms.—The symptoms of abortion are the same as those of ordinary parturition. The animal is off her feed, listless, uneasy, paws the ground, and walks with a staggering gait, and there is also an offensive discharge from the vulva. Labour pains come on, the animal moans, and the foetus is expelled (sometimes living, but usually dead); the membranes being generally putrid and expelled in small quantities at a time.

Treatment.—Should a Cow appear likely to abort, immediately isolate it from all other stock, as the smell from the uterine discharges is most offensive to other Cows. After the abortion, remove the foetus, the after-birth, and all the membranes; and disinfect and bury them deeply in the ground; and disinfect the byre carefully with "**Hewthorn's Disinfectant**" to get rid of the smell produced. The Cow should then have attention, and the vagina should be injected with "**Hewthorn's Detergent Lotion**;" after which the parts ought to be anointed with "**Hewthorn's Black Healing Oils**;" and half a teacupful of "**Hewthorn's Healing Oils**," mixed with two cupsful of Olive Oil, should be poured or injected into the womb, to assist in cleansing the

ABORTION, &c.—continued.

parts and destroying any disease germs that may be present. If labour-pains are not allayed after parturition, a dose of "**Hewthorn's Sedative Extract**" given in gruel will generally cause their cessation. Repeat the dose in two hours if necessary. Wash the stall and disinfect it thoroughly, and burn all the old litter, and lay fresh down. Careful nursing is imperative for an aborted Cow; and if the animal is weak, give half a bottle of "**Hewthorn's Gaseous Black Drink**" in gruel, twice the first day. When feverishness subsides, give a "**Hewthorn's Red Drench**," to which add a table-spoonful of "**Hewthorn's Antifebrile Stimulant**." Feed carefully on easily digested food. The whole herd should be given half-ounce doses each of Chlorate of Potash daily in one quart of water.

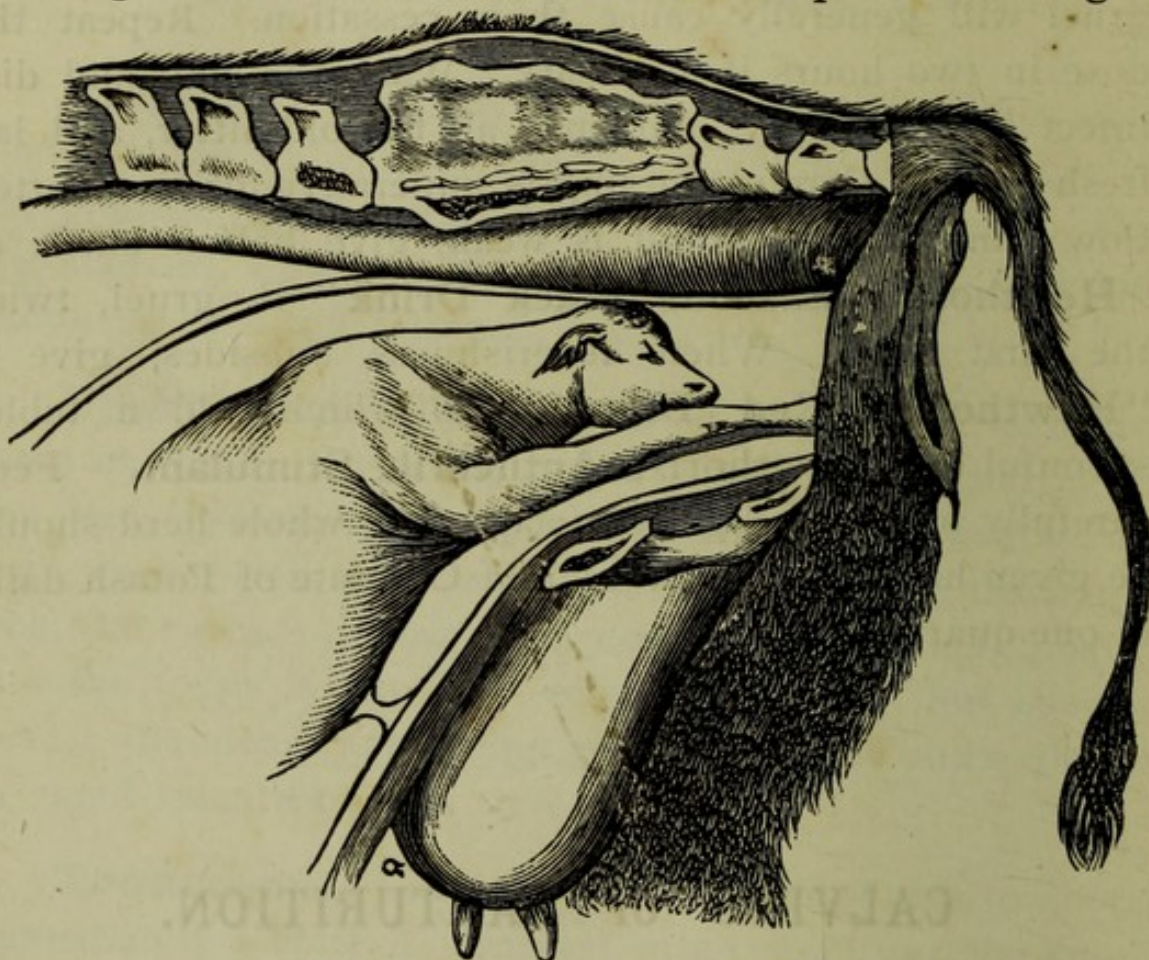
CALVING or PARTURITION.

As stated in the Horse Section, we do not intend to go into the subject of parturition minutely; veterinary aid being advisable in cases where special difficulty arises. The following remarks, however, will be of assistance to breeders under ordinary circumstances, especially in the case of highly bred animals.

Avoid giving assistance until it is really necessary. Frequently nature will overcome obstacles to the exit of the calf, which we might only aggravate by interference. As a rule, so long as the bag of waters has not burst, do not act; that is, if the vagina is clear and the womb healthy.

MEDICAL TREATMENT DURING CALVING.

Cows in good health seldom require assistance during calving, but in cases where the labour-pains are languid



Natural Presentation of the Calf.

and the animal has been in labour for a lengthened time, and on examination, the position of the foetus is natural, and the mouth of the womb dilated, a dose of one to two ounces of powdered ergot should be given in gruel.

Medicine is also needed where there is considerable straining after-birth. A few doses of "**Hewthorn's Sedative Extract**" once every four hours will generally stop this. When cows are in low condition prior to calving, they sometimes lose power in their hind limbs, and are unable to stand. In such a case, give laxative but nutritious food, and a "**Hewthorn's Cordial Drench**"

MEDICAL TREATMENT DURING CALVING—*continued.*

in gruel daily. See the animal is well bedded, and is turned over several times a day. Recovery of the use of the limbs invariably takes place after calving. To assist this, continue the "**Hewthorn's Cordial Drench**" for some days, and stimulate the loins daily with a good rubbing of "**Hewthorn's Matchless Embrocation.**" Get the animal on her feet as soon as possible.

Sometimes diarrhœa prevents the animal gaining strength. In such a case give two or three tablespoonfuls of "**Hewthorn's Scouring Remedy**" in gruel, in which put two tablespoonfuls of "**Hewthorn's Sedative Extract.**" This may be repeated for three or four days.

Should the after-birth be retained after calving, follow the instructions given under the next heading.

**RETAINED AFTER-BIRTH
BAD CLEANSING.**

CAUSES.—This may arise from a variety of causes. The membrane is sometimes too firmly attached to the womb; or hurried delivery, poor condition, &c., may lead to its non-expulsion. Under ordinary circumstances, three or four days retention does no harm, but should it be left longer, decomposition begins, and there is a foetid discharge which exhausts and poisons the animal, and contaminates the atmosphere.

TREATMENT.—If the cleansing does not come away after a few hours, and the animal is in fair condition, give a "**Hewthorn's Yellow Purging Drench**" in warm gruel, followed in six hours by "**Hewthorn's Cleansing Red Drench.**"

RETAINED AFTER-BIRTH—*continued.*

If the animal be exhausted, however, give a dose of "**Hewthorn's Gaseous Black Drink**" first, and then the "**Hewthorn's Cleansing Drench**" an hour after.

Should the cleansing be still retained after the Drenches have acted well, the hand, anointed with "**Hewthorn's Healing Oils**," ought to be introduced into the womb, and the after-birth separated carefully from its connection with the sides of the uterus by the fingers. After removal, an injection of two tablespoonfuls of "**Hewthorn's Healing Oils**" to one pint of Olive Oil should be poured into the womb as a disinfectant. Keep the animal quiet, and feed carefully on easily digested food, and see that the surroundings are thoroughly clean and well disinfected. Should there be much, or continued bleeding, treat as directed under the heading of "Flooding."

LEUCORRŒHA OR WHITES.

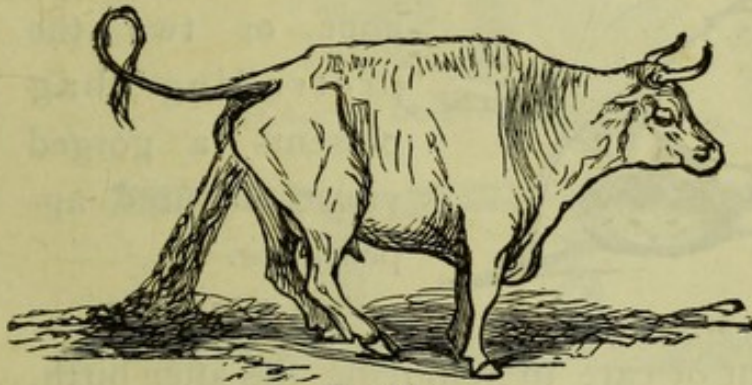
DEFINITION, CAUSES AND SYMPTOMS.—This is a condition seen frequently after retained after-birth, or violent parturition; and consists of a white slimy discharge from the vagina, with loss of condition and appetite. Debility will also cause it.

TREATMENT.—Give a "**Hewthorn's Yellow Purging Drench**" in gruel, after which feed on good nourishing food, oil cake, bruised oats, bran, linsced, malt, and oatmeal. The vagina should be syringed daily with "**Hewthorn's Detergent Lotion**," used as directed on the bottle. A half dose of "**Hewthorn's Gaseous Black Drink**" given night and morning in warm ale, will also give tone and strength to the system.

FLOODING.

DEFINITION.—Extensive bleeding from the womb, frequently occurring after difficult parturition, or after a natural birth which has been rapid. It may also arise from violence having been used during an abortion.

SYMPTOMS.—The blood may escape and flow from the



Flooding.

vagina; or the only outward symptoms may be paleness of the membranes of the mouth, nose, &c., great weakness, and coldness of the surface of the body. Under the latter

conditions, on exploring the womb, it will be found to contain large clots of blood.

TREATMENT.—Oil the hand with "**Hewthorn's Healing Oils,**" introduce it into the womb and remove all traces of the after-birth and clotted blood. A sponge filled with *very hot* water and "**Hewthorn's Styptic Dressing,**" mixed in equal parts, must then be squeezed out several times within the womb to cleanse and contract the parts. Stand the animal higher behind than in front. Apply ice or cold water cloths to the loins. Give two tablespoonfuls of "**Hewthorn's Antifebrile Stimulant,**" and half a wineglassful of "**Hewthorn's Sedative Extract,**" in one and a half pints of warm gruel. Repeat these latter remedies in one and a half pints of gruel every three hours until relieved. Repeat the sponging also if the bleeding does not seem to be stopping. Keep the animal very quiet and comfortably clothed, and let the diet be nutritious and digestible.

Disinfect all the surroundings with "**Hewthorn's Disinfecting Fluid.**" Remove all the cleansings, &c., and have them buried at a distance.

INVERSION OF THE WOMB — FALLING or DROPPING OF THE CALF BED.

DEFINITION. — The womb turns partially or entirely “inside out,” and protrudes more or less wholly from the



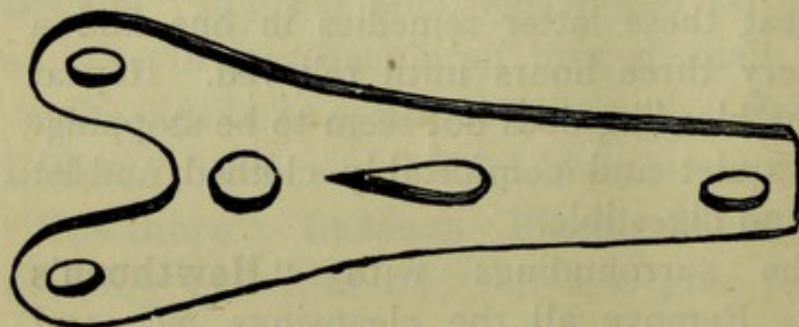
Inversion of the Womb.

vulva. If the state of matters is not noticed for an hour or two the protruding bag presents a gorged violet coloured appearance.

CAUSES. — Excessive straining, want of care in removing the after birth, relaxation of the uterine ligaments, &c.

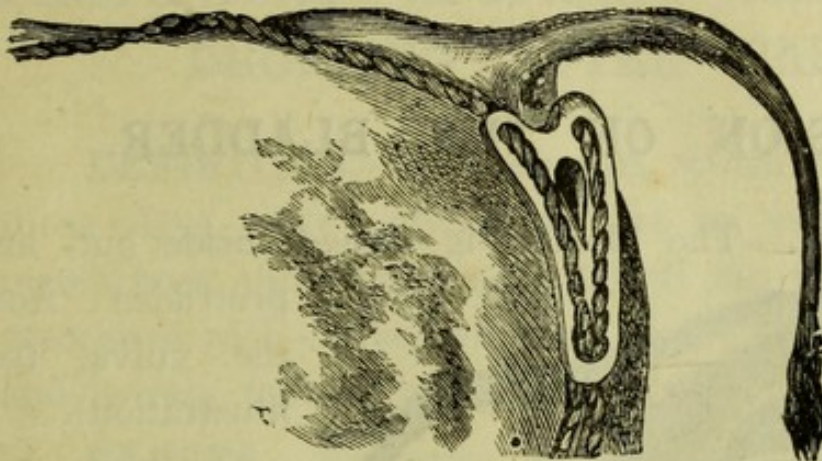
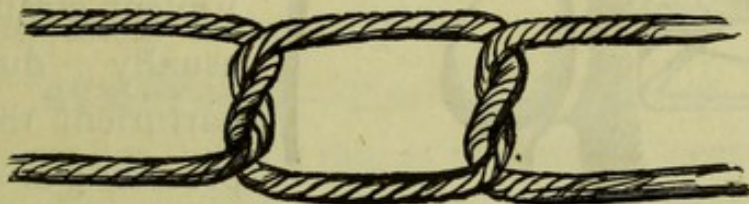
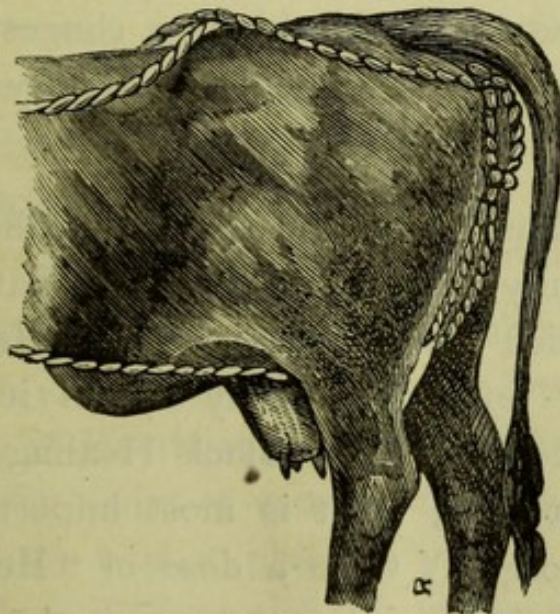
TREATMENT. — The animal should be kept standing and with the hind quarters raised. Give at once a dose of “**Hewthorn’s Sedative Extract**” in a pint of warm gruel, repeating in three or four hours. Clean the bag by washing with warm water; and, if it is much swollen, scarify it carefully with a sharp knife in a number of places to relieve the congested blood vessels. When this has been sufficiently accomplished, douche the organ with cold water, and proceed to return the womb to its place as follows:—

Place a damp clean cloth under the organ, and get



Leather or Wooden Truss.

two assistants to hold it up level with the vulva. Oil all the parts well with “**Hewthorn’s Healing Oils.**”

INVERSION OF THE WOMB—*continued.**Leather or Wooden Truss applied.**Rope Truss.**Rope Truss applied.*

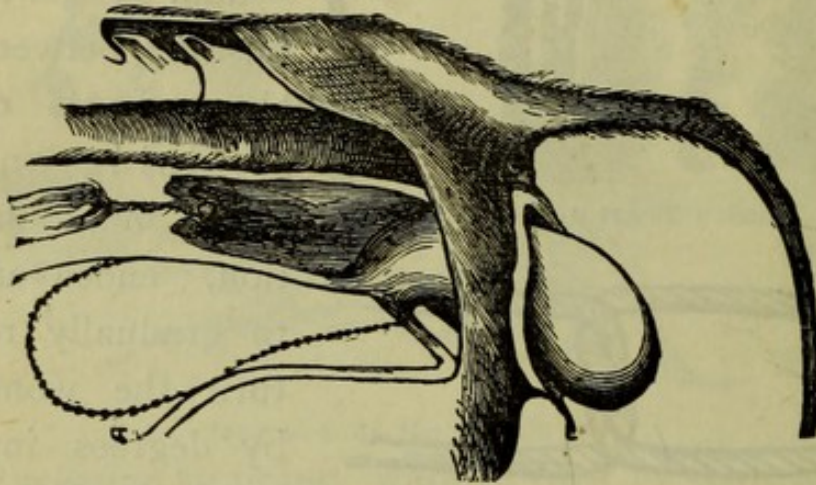
mixed with Olive Oil — one part healing Oils to six of Olive —and, by gentle pushing, between the efforts of straining and firm manipulation, endeavour to gradually return the womb by degrees into its place. When it is returned a truss should be placed over the vagina, and kept in position as shewn in the diagrams.

Should the pains continue, repeat the "**Hewthorn's Sedative Ex-**

tract" twice daily. Keep the cow very quiet, and with the hind quarters higher than the fore; and feed on light, easily digested food, such as mashes, gruel, &c.

INVERSION OF THE BLADDER.

DEFINITION.—The bladder is turned inside out, and protrudes from the vulva, (see illustration).



Inversion of the Bladder.

CAUSES.—Violent straining usually during parturient throes preceding or after calving.

SYMPTOMS.—The bladder, highly congested, protrudes through the vulva, and urine is constantly dribbling from it.

TREATMENT.—This generally requires skilled veterinary aid. Very carefully cleanse the organ by bathing with warm water, after which gently smear it with **Hewthorn's Black Healing Oils,** and immediately return it carefully to its place. Anoint the hands with **Black Healing Oils** and manipulate with great care, as it is most important not to scratch or injure the organ. Give a dose of "**Hewthorn's Sedative Extract**" in warm water, and repeat in three hours if the animal still strains. A leather truss should be applied, and the hind quarters kept somewhat elevated (see *Inversion of the Womb*). Give gruels freely, and keep the bowels acting well by administering Castor Oil, or "**Hewthorn's Cleansing Drench.**"

PARTURIENT APOPLEXY—MILK FEVER— DROPPING AFTER CALVING.

DEFINITION.—This disease, which may occur two or three days after calving, is due to inflammation of the membranes and tissues adjacent to the womb, is invariably associated with marked affection of the brain and spinal cord, and is very frequently fatal.

CAUSES.—Exposure, retained after-birth, injury to the womb in calving, colds, chills, &c. Heavy milkers are most liable to be attacked.

SYMPTOMS.—The Cow becomes dull and languid; hangs her head; moves restlessly; ceases to feed, or chew her cud; and the flow of milk is checked. The urine is scanty, and may be retained owing to paralysis of the bladder, and the bowels are constipated; she presently becomes semi-conscious; breathes rapidly; is giddy; sways about and walks unsteadily; and finally falls down heavily. She may be excited and delirious, but finally becomes comatose and snores; and keeps her head turned persistently round to her side.

TREATMENT.—This must, above all things, be *prompt*. *Immediately the symptoms appear*, drench the Cow with one bottleful of **Hewthorn's "Lactofebril" Milk Fever Cure**, mixed with a pint of water; and two hours later give half a bottleful in half a pint of water. After this, give half a bottleful in half a pint of water every four hours till the animal recovers. (N.B.—Give the medicine very carefully and slowly, and see that each mouthful is swallowed before giving another, so as to avoid risk of choking.) Prop the Cow up off her sides with bags of straw, so that she lies almost on her belly; and prop her head up also. Change

PARTURIENT APOPLEXY, &c.—continued.

her over a little from left to right, and vice-versa, every hour or two. Draw off the milk gently every hour or so; and, if the animal does not make water freely, see that the urine is also kept drawn off. Keep the bowels acting freely by ejecting enemias of soap and water every two hours. Rub the whole of the spine thoroughly with **Hewthorn's Matchless Embrocation** every two or three hours. Keep the head cool by applying cold water cloths; keep the body warmly clothed; and keep the animal out of draughts. Water may be given in moderation when thirst is shown.

When the animal commences to mend, she must be fed very lightly with gruels, bran mashes, and only the most nourishing and easily digestible food (see page lvi.); and a dose of **Hewthorn's Antifebrile Stimulant** once or twice daily will be found useful.

GARGET—MAMMITIS—CAKED BAG.

DEFINITION.—This is an inflammation of the mammary glands.

CAUSES.—Overheated condition of the blood, exposure to cold; putting the Cow on too rich pasture after calving; violence; allowing the animal to go too long unmilked; &c. Good and bad milkers are alike subject to garget.

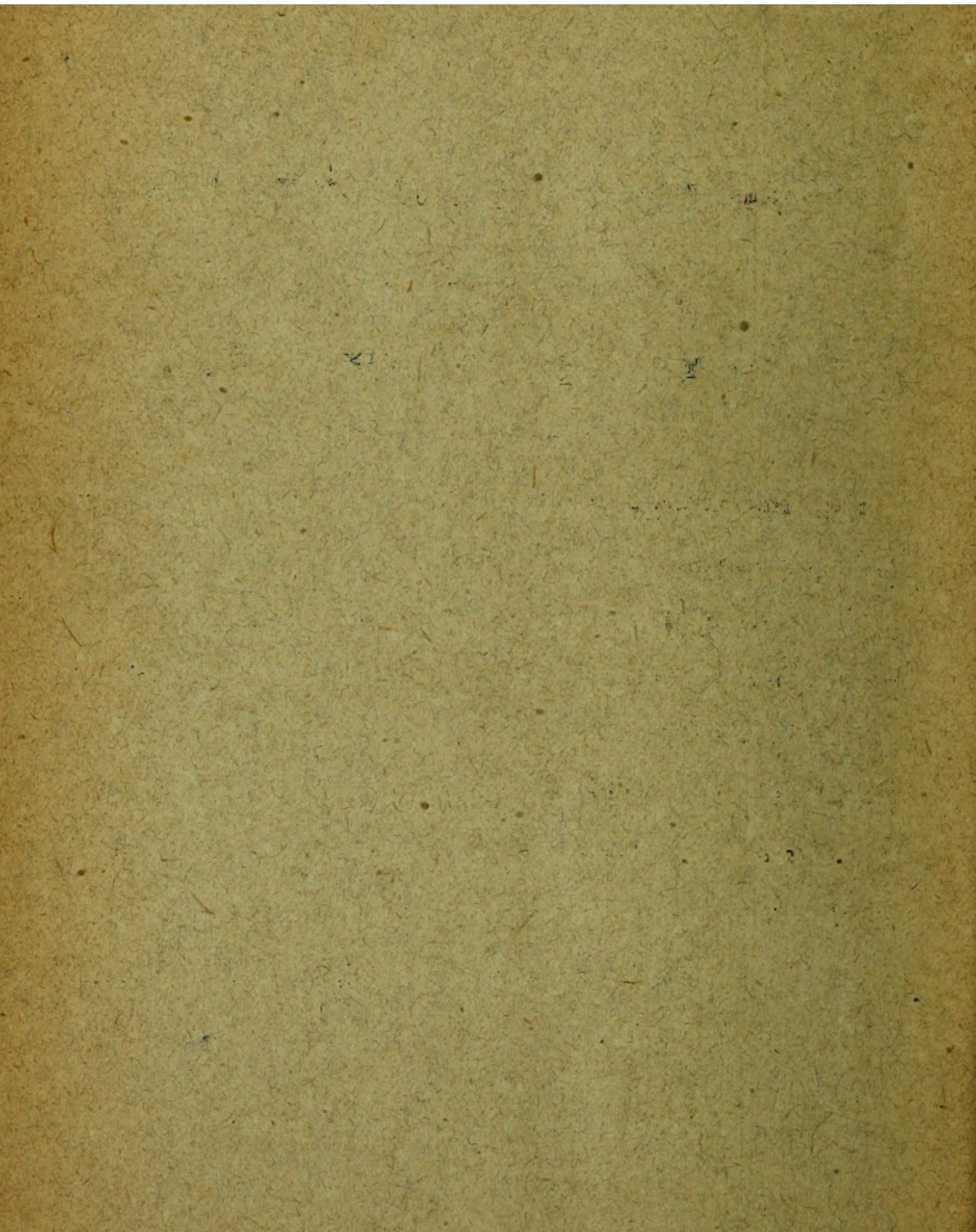
SYMPTOMS.—Swelling of the udder, generally confined to one or two quarters, which become red and painful to the touch. The milk is curdled, whey-alike, and mixed with blood. The animal is feverish, the appetite is impaired, and the bowels are irregular, constipated or somewhat loose. Later, suppuration of the parts may take place, and the udder become permanently impaired.

Further Improved Method of Treatment

FOR CASES OF

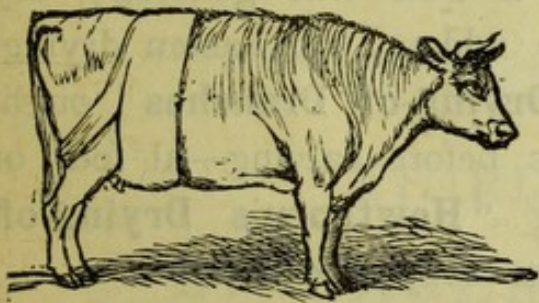
MILK FEVER.

Immediately after giving the first dose of "**Lactofebril**," (as mentioned on page 158), milk the cow quite dry, and inject into each teat half a pint of solution of "**Hewthorn's Udder Purifier**" (a supply of which accompanies the "**Lactofebril**,") according to directions given on each package. This solution must be left in the udder for five or six hours. The further doses of "**Lactofebril**" (recommended on page 185), must also be given, and under this improved treatment a successful result is almost in all cases secured, and the disease effectively dealt with.



GARGET, &c.—continued.

TREATMENT.—Give at once in one quart of gruel a “**Hewthorn’s Yellow Purging Drench,**” in which mix a dose of “**Hewthorn’s Antifebrile Stimulant.**” Repeat daily for two or three days, until the bowels are acting freely. Bathe the Udder well with warm water, dry thoroughly, and, if the udder is hardened and lumpy, rub it well, but gently,



Bandage for Sore Teats or Swollen Udder.

with “**Hewthorn’s Absorbent Ointment, or Liniment.**” Four hours after apply “**Hewthorn’s Soothing Ointment**” gently all over the Udder. Repeat this treatment next day—and again on the fourth day, if

necessary,—omitting the Absorbent Ointment, or Liniment then, however, if the skin is sore. If the udder is *not* hard or lumpy, the **Absorbent Ointment** is not needed, and rubbing with **Soothing Ointment** only will cure. Support the organ by using a broad bandage, padded with soft material, fixed over the back (see illustrations). Poultices may be resorted to if required; and should the inflammation produce much suppuration and abscesses form, they must be freely lanced and the cavities syringed, with “**Hewthorn’s Detergent Lotion,**” and afterwards dressed with “**Hewthorn’s Healing Oils.**” Repeat the **Antifebrile Stimulant** two or three times a day, until all feverish symptoms are allayed.

Feed the animal sparingly and on such food as will not produce milk; and milk her frequently with the hand or with a teat-syphon. A teat-syphon is indispensable to draw the milk off where the teats are much inflamed.

MANAGEMENT OF THE MILK.

1.—TO DRY THE MILK.

A Cow should be allowed to go dry about six weeks before calving—a weak animal at least two months. By lessening the milk taken daily a Cow will generally dry without painful swelling of the udder. To hasten drying, two or three of “**Hewthorn's Drying-off Drenches**” ought to be given about eight weeks before calving—at four or five days intervals. Rubbing “**Hewthorn's Drying-off Ointment**” into the udder is also very efficacious.

2.—TO BRING ON OR INCREASE THE MILK.

Give nourishing and good food, with “**Hewthorn's Cow Thriving Mixture**,” (which is specially prepared with a view to increasing milk secretion) mixed in each feed. The udder should also be rubbed occasionally, to excite the glands to increased activity. If the milk is checked, apply a poultice of bran, linseed, or turnips, &c., to the udder, and “**Hewthorn's Cow Thriving Mixture**” ought also to be given in the food daily.

3.—TO CORRECT BLOODY MILK.

A “**Hewthorn's Yellow Purging Drench**” is to be given in gruel. If due to blows or injury, the udder should be fomented with hot water with a little vinegar in it. Milk the animal carefully, and change the diet completely.

MANAGEMENT OF THE MILK—*continued.*

4.—WHEN THE MILK APPEARS OF A BLUE COLOUR.

It is generally due to inferior pasturage, impure water, bad sanitation, &c. The remedy in such a case is to change the food and pasture, remove the animal to healthier quarters, boil the water before giving to drink, and to give occasional half doses of "**Hewthorn's Yellow Purging Drench.**"

THIRD SECTION.**DISEASES OF CALVES.**

TREATMENT AFTER BIRTH.

Immediately the Cow has dropped her calf, let her lick and clean it. A little salt sprinkled over the calf generally induces this maternal duty.

Let the calf suck the mother for the first few days; as the laxative quality of the milk during this period benefits the calf. After a fortnight a start should be made with rearing on "**Hewthorn's Calf Meal,**" and the milk made money of. If, after severing the naval string, slight bleeding occurs, tie the end with a piece of thick thread. If the navel is inflamed, apply "**Hewthorn's Soothing Ointment.**" If abscesses form, bring them to a head by applying "**Hewthorn's Embrocation,**" then lance and allow all matter to discharge, and heal by fomenting and dressing with "**Hewthorn's Healing Oils**" daily. Give mashes with a little "**Hewthorn's Blood Purifying Salt**" in them once a day during the treatment.

WEAKLY, UNHEALTHY CALVES.

To assist in restoring health, "**Hewthorn's Gaseous Black Drink**" should be given for three or four days, in half doses according to the age of the animal affected, mixed in warm gruel sweetened with treacle, every three hours the first day, every four hours the second, and two or three times the third; and then a half dose every other day for a week. The system will greatly improve, the appetite recover, and the animal's strength be greatly invigorated by this treatment.

DIARRHŒA—SKIT—GURR—SCOURING.

This is very common in Calves, and is often attended with great mortality.



Scouring.

CAUSES.—It may arise from improper feeding of the Cow or Calf; from change of milk; from the Cow being over driven or worried; from chill, foul air, contact with other scouring animals, or a host of other reasons.

TREATMENT.—First, to remove irritant matter, give a dose of "**Hewthorn's Carminative Oil**" (three to six tablespoonfuls), in which mix one or two teaspoonfuls of "**Hewthorn's Sedative Extract.**" Where there is much straining and abdominal pain, repeat the "**Sedative Extract**" twice during the day. Half doses of "**Hewthorn's Gaseous**

DIARRHŒA, &c.—continued.

Black Drink," according to the animal's age, should be given in skim milk or flour gruel every three hours or so. After the oil has cleared the bowels, "**Hewthorn's Scouring Remedy**" should be given alternately with the doses of "**Gaseous Black Drink**" every three or four hours in flour gruel. This will counteract any acidity of the bowels, and have a soothing and rapidly curative action.

**WHITE SCOUR—EPIDEMIC COLIC—SHOOTE
of BOOD.**

CAUSES.—The cause of this common and most contagious disease is presumed to be bacterial, and weather influences its prevalence to some extent.

SYMPTOMS.—The calf lies down, manifests belly pains, grinds its teeth, but does not roll. Weakness develops, and there is whitish, thin, foul smelling scour.

TREATMENT.—Completely isolate the calf, disinfect the building, and put no animal there for six months after at least.

Give the calf immediately one packet of "**Hewthorn's White Scour Remedy**" mixed in a teacupful of cold water. Give this dose three times the first day; twice the second day, and once the third day. This cures ordinary cases; but, in very severe attacks, give the dose every three hours till the scouring is satisfactorily checked, and then treat as above on the three following days.

Feed the calf from a different cow—one that is in perfect health;—keep it comfortably warm and free from draughts, well bedded on dry litter; and in a fresh shed that is thoroughly clean and dry; and see the shed is kept well flushed out, and disinfected.

HUSK or HOOSE—PARASITIC BRONCHITIS.

DEFINITION.—A disease produced by a parasitic worm, called the *Strongylus*, which locates itself in the windpipe, producing great irritation, and frequently causing death.

CAUSES.—The above-mentioned parasite invariably attacks calves under one year old, and most frequently those fed on wet, low lying lands, near rivers, &c. It is most prevalent during August and September, and the parasites are often found in such numbers in the throat that it is not unusual for an animal attacked to die of suffocation. The worm is white, an inch or two long, and slender as a thread.

SYMPTOMS.—A hoarse, bronchial cough (called the “*husk*” or “*hoose*”), loss of flesh, difficulty in breathing, loss of appetite, dejected appearance, diarrhoea, &c.

(NOTE.—It is very important, should any of the above symptoms be noticed, to AT ONCE make a careful examination, as frequently, by timely treating the animal, most distressing developments are avoided and an easy cure made. In fact, by using “**Hewthorn's Huskura**” as a *preventive*, amongst even *healthy stock* during the months mentioned above, they will show an immunity from attack that otherwise might not be the case.)

TREATMENT.—Remove all affected animals from the rest, and place in a well ventilated shed, in order to prevent the eggs of the worms being conveyed from them to the remainder. The healthy animals should also be instantly taken off the pasture where the disease was contracted, or they will themselves, while grazing, take

PARASITIC BRONCHITIS—*continued.*

up the worms. To all animals coughing, give a dose of "**Hewthorn's Huskura**" each morning for three mornings, and then every other morning until cured. Fast the animal for two hours before dosing, and for two hours afterwards. Inhalations of burning sulphur two or three times a day, are also beneficial. Later on, should the disease be obstinate, and there is weakness, and diarrhoea, give every day for a week, a dose of "**Hewthorn's Gaseous Black Drink**" in lime water as well as the above prescribed doses of "**Hewthorn's Huskura.**"

The diet should consist of nourishing foods, good oats, oilcake, bran and carrots, swedes, cut hay, &c. A little salt sprinkled over the food is beneficial, and a sprinkling of "**Hewthorn's Special Calf and Lamb Thriving Mixture**" should be carefully mixed with each feed, as it tends to improve the appetite, and give tone and stamina; and greatly helps the animals to regain condition and flesh.

CROUP.

DEFINITION.—Inflammation of the trachea, which causes a whitish deposit upon it, called a false membrane. •

CAUSES.—Exposure to damp, chills, and heavy dews. It occurs from a few weeks to three months old; and is most prevalent in low-lying districts, on the banks, of rivers, &c.

CROUP—*continued.*

SYMPTOMS.—Hoarse cough and running from the nose; the saliva hanging round the mouth. The animal looses flesh, and swallows with difficulty. Later on the breathing becomes laboured, the cough more difficult, and phlegm is coughed up.

TREATMENT.—Give a mild dose of "**Hewthorn's Carminative Oil**," and twice daily a half dose of "**Hewthorn's Fever Drink**" to allay feverish symptoms. Remove the calf to dry, healthier, quarters; and, to relieve the breathing, allow the animal to inhale the vapour from slaking lime, taking care that the vapour is not too strong.

**NAVEL-ILL—INFLAMMATION OF THE
NAVEL.**

DEFINITION.—An inflamed condition of the umbilicus or navel, usually due to unhealthy surroundings.

SYMPTOMS.—Inflamed swollen condition of the parts, local pain, and feverishness. It is often associated with "Joint Ill." (See page 167).

TREATMENT.—Foment with four parts warm water and one part "**Hewthorn's Cooling Lotion**" mixed thrice daily, and afterwards anoint the part with "**Hewthorn's Healing Oils**." Give a calf's dose of "**Hewthorn's Cleansing Drench**," and repeat in three days if still feverish.

WOODEN TONGUE—TIMBER TONGUE— LUMPY JAW—WEN.

DEFINITION.—Swelling and hardening of the bones, or the glands, of the jaw and tongue—Common on fen lands.

CAUSES.—Parasitic—particularly likely to occur after feeding on barley straw or awns.

SYMPTOMS.—The parts about the tongue and the tongue itself swell and harden, often threatening choking ; and finally they suppurate. The animal can hardly eat, becomes very poor, and dies if the case is neglected.

TREATMENT.—A course of drenching with "**Hewthorn's Wooden Tongue Remedy**" cures almost invariably. One quarter of a bottle must be given morning and night for at least a month, mixed in a pint of water, and the animal fed carefully on gruels and other soft and nourishing foods to keep up the strength, till the gradual shrinking of the tongue and restored healthy condition of the parts enables full proper feeding to be resumed.

LOSS OF HAIR—BALD PATCHES.

Hair can be rapidly grown on bald places, after blistering attacks of mange, lice, ringworm, &c., or when an extra growth is required on horses' legs, &c., by applying to the skin once or twice daily a little of "**Hewthorn's Hair Grower.**" It gives a much improved and thickened coat to dogs, horses and any animal where luxuriant coat or growth of hair is a desideratum.

