



FERNS OF WAKEFIELD

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FERNS OF WAKEFIELD.

REVISED
EDITION
1862

THE

FERNS AND FERN ALLIES

OF

WAKEFIELD

AND ITS NEIGHBOURHOOD.

BY

T. W. GISSING,

Illustrated by J. C. Sowerby.

PRINTED AND PUBLISHED FOR THE AUTHOR BY

R. MICKLETHWAITE, JOURNAL AND EXAMINER
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1862.

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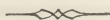
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PREFATORY NOTE.



THE nomenclature adopted in the following pages is that of the *London Catalogue of British Plants*, published under the direction of the London Botanical Society. This has been done because that list is almost universally used by British botanists in making exchanges.

The list of Synonymes could have been much extended, but those only of comparatively modern authors have been given.

The real or supposed uses of the plants are enumerated, not from any great faith in their value, but to show that ferns have from the time of Dioscorides (about the year 60) down to the present day been considered potent remedial agents; although the only preparation now in use is the Oil of Male Fern, and this seems deservedly esteemed by many of our most eminent medical men as an excellent vermifuge.

As few technical scientific terms are used as possible, and they could only have been omitted by the use of six or eight (or even more) words to express the same thing; and, besides, the meaning of most of them is so evident that I have not thought it necessary to insert a Glossary.

In nearly every instance I have confirmed the existence of the plants in the localities named, and where no other

name is given I am responsible for the habitats, all of which are within twelve miles of Wakefield.

I may likewise observe that all the engravings have been done specially for this book; and from original specimens sent from this locality, with the exception of three,—*Allosurus Crispus*, *Lycopodium clavatum*, and *L. Selago*.

After the work was very far advanced another fern was added to the list, thus making twenty-six; I have therefore been compelled to slightly increase the price, but I thought it better to do this than to have the book incomplete.

THE AUTHOR.

December, 1861.

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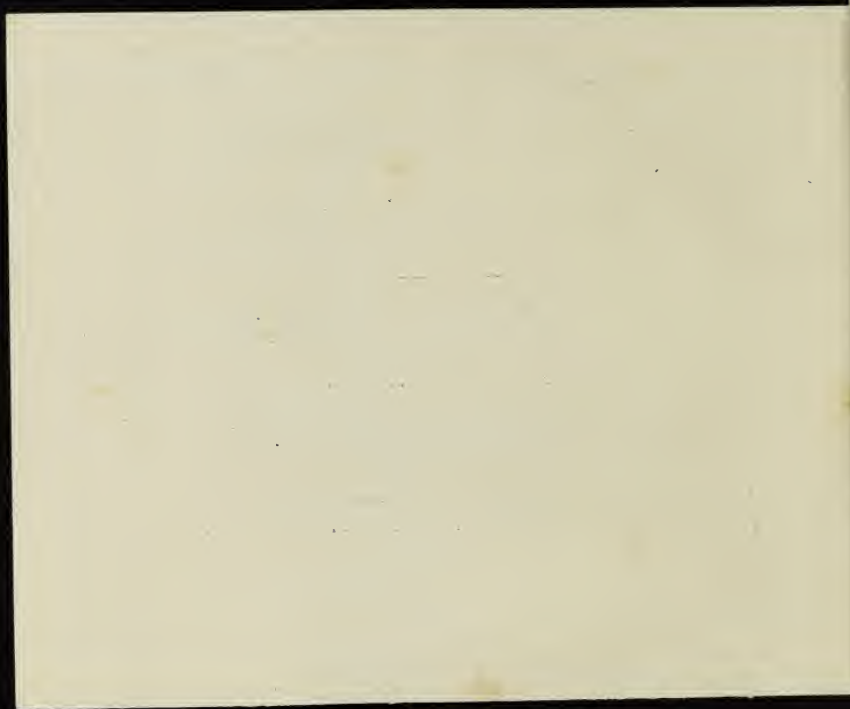
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J. H. Fecit



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(FERNS.)

POLYPODIUM VULGARE. LINNÆUS.

(*Common Polypody.*)

DERIVATION OF NAME. From *polus*, many, and *pous*, a foot.

SYNONYME.

CTENOPTERIS VULGARIS. *Newman.*

DESCRIPTION.

The CAUDEX (underground stem) creeping with the rootlets shooting from it in all directions.

FRONDS deeply pinnatifid, the segments linear-lanceolate and more or less toothed, sometimes deeply bipinnatifid with the divisions again toothed. They appear about May and

never spring from the young point of the caudex. They are generally pendent, but when growing in thickets are quite erect until destroyed by frost.

VEINS simple or forked with the *naked circular*

SPORE CASES (sori) upon them.

No fern (except perhaps *Scolopendrium vulgare*) varies so much in form as the Common Polypody. Seventeen varieties are described in the folio edition of the Nature-printed Ferns, only one of which I have seen in this district. Unlike some ferns the varieties are almost invariably fructified. In fact in Worcestershire I have found the varieties often more densely covered with the beautiful orange coloured Sori than the normal form.

USES.

A safe purgative, used in jaundice and dropsy, and in scorbutic disorders.—*Meyrick's Herbal*.

LOCALITIES.

Heath and Purston. The variety *Polypodium serratum* grows at Purston.



J. E. F. Fecit



POLYPODIUM DRYOPTERIS. LINNÆUS.
 (*Oak Fern, or Tender three branched Polypody.*)

DERIVATION OF SPECIFIC NAME. From *drus*, an oak, *pteris*,
 a fern.

SYNONYMES.

| | |
|--------------------------|----------------|
| POLYSTICHUM DRYOPTERIS. | <i>Roth.</i> |
| LASTREA DRYOPTERIS. | <i>Bory.</i> |
| GYMNOCARPIUM DRYOPTERIS. | <i>Newman.</i> |

DESCRIPTION.

CAUDEX, small, wiry, and creeping, much branched and scaly, with black fibrous rootlets.

FRONDS, of three triangular portions uniting at the top of the stalk. Each division is pinnate, with pinnate or pinnatifid pinnæ. They spring from the points of the branches of the caudex, and generally appear in April. In exposed situations they wither by July or August, but in thick woods continue green as late as the end of September. They are found both barren and fertile.

VEINS. Midvein waved with alternate simple veinlets the ends of which bear the

SPORE CASES which form a circular dark brown cluster without cover.

Varieties of this fern are seldom seen. The only one I have ever found being a simple fork at the end of one of the pinnae.

U S E S.

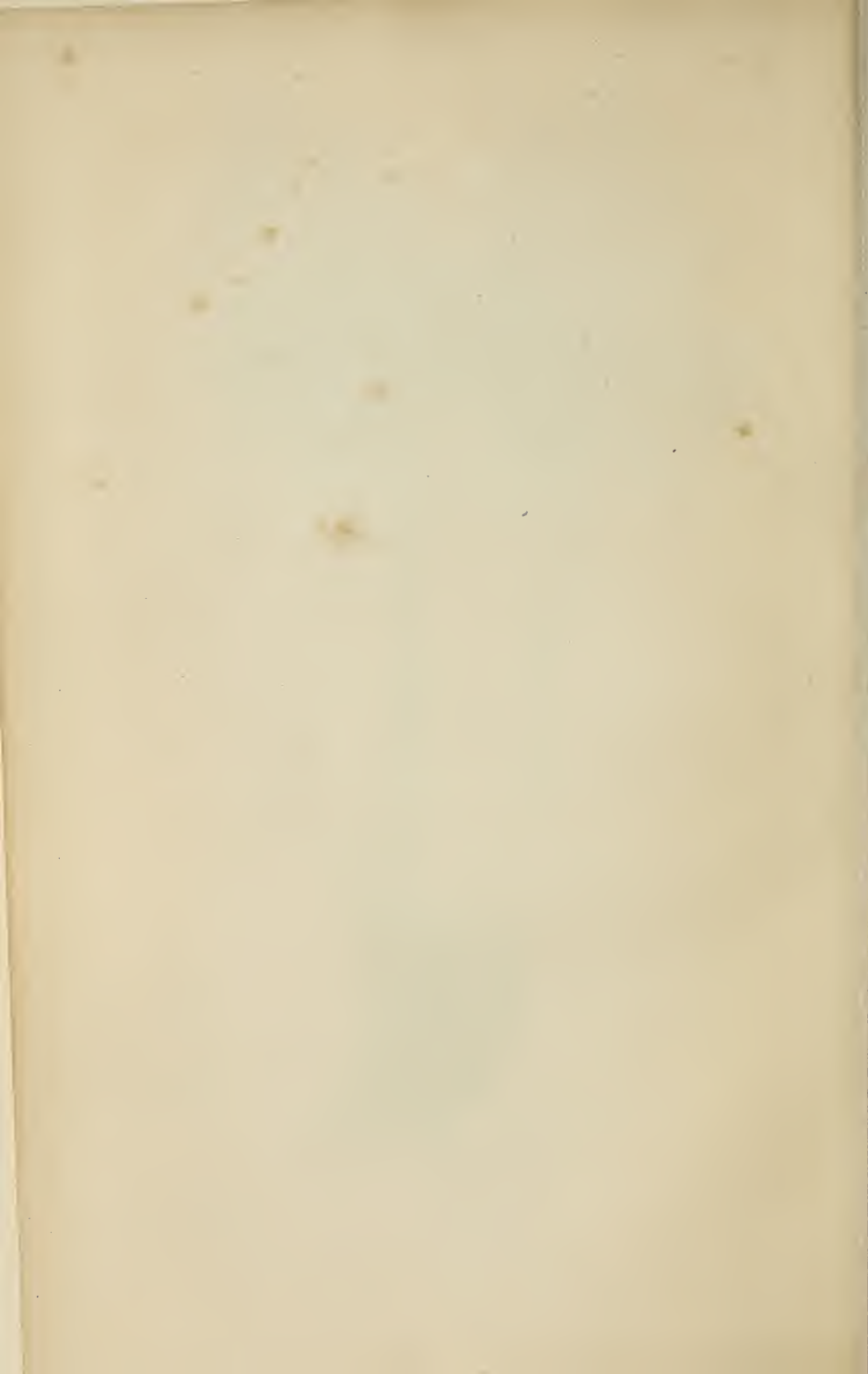
Dioscorides and Gerard say "it is a remedy to root up hairs" on the body—what we moderns term a "depilatory."

LOCALITIES.

Lofthouse (Mr. Forrest). Netherton. I likewise discovered it at Heath, but it has been destroyed by the re-opening of a stone quarry. Soothill Wood (Mr. S. Bruce.)



J. A. Fecit



ALLOSURUS CRISPUS. BERNHARDI.

(Parsley Fern or Rock Brakes.)

DERIVATION OF NAME. From *allos*, various, and *sorus*, a heap, in allusion to the altered appearances of disposition presented by the *sori* in the stages of their development.

SYNONYMES.

OSMUNDA CRISPA. *Linnæus, Lightfoot, Hudson, Bolton.*PTERIS CRISPA. *Withering, Smith.*CRYPTOGAMMA CRISPA. *Mackay, Francis, Hooker and Arnott.*

 DESCRIPTION.

CAUDEX, short and decumbent, with numerous fibrous roots.

FRONDS, Barren and Fertile. Two or three times pinnate, ovate, or oblong in general outline; with the pinnæ pinnales and lobes of the barren fronds all alternate, the ultimate divisions wedge shaped and cleft or toothed; generally crisped. Fertile fronds taller than the barren, being from two inches to a foot high.

VEINS. Midvein flexuous with alternate lateral veins, divided shortly after leaving the midvein, the branches bearing the

SPORE CASES of nearly circular form and naked, soon

becoming confluent and covered by the reflexed margin of the lobe.

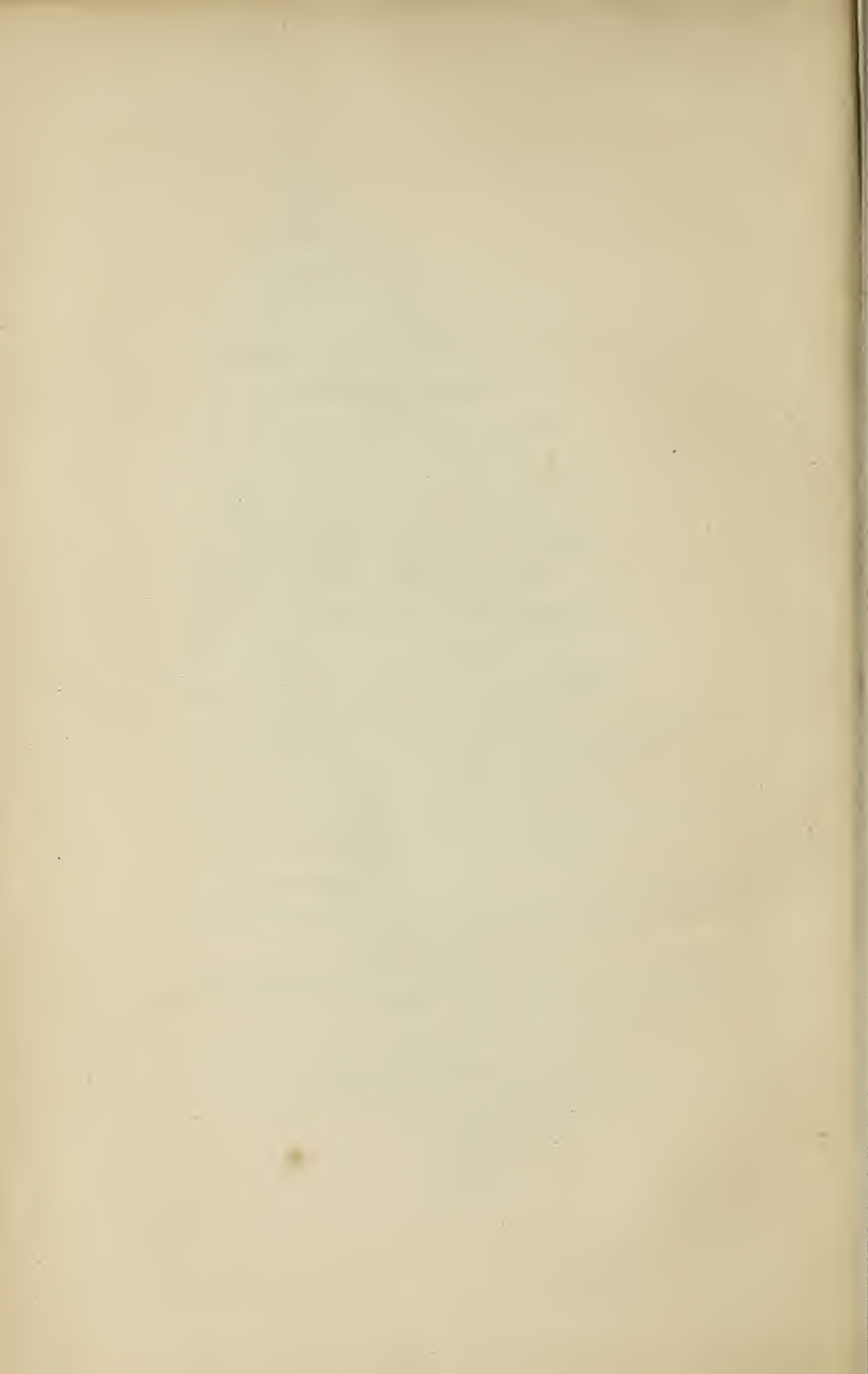
A very beautiful fern, bright green, growing amongst loose stones in hilly districts, and well distinguished by the great likeness of its barren fronds to the common garden parsley.

LOCALITY.

This fern was found by Mr. W. S. Banks (and afterwards seen by me) within a few yards of the *Polypodium Dryopteris* at Heath, but from the same cause has now disappeared, although I believe they are both only buried.



J. R. F. Fecit



POLYSTICHUM ACULEATUM. Roth.

(Common Prickly Shield Fern.)

DERIVATION OF NAME. From *polus*, many, and *stichos*, order, in allusion to the numerous regular lines in which the sori are disposed.

SYNONYMES.

POLYPODIUM ACULEATUM. *Linnaeus.*POLYPODIUM COLATUM. *Hudson.*ASPIDIUM ACULEATUM. *Swartz.*

DESCRIPTION.

CAUDEX tufted, very large, with long strong rootlets.

FROND with very short stalks, densely covered with scales at the bottom; linear-lanceolate, twice pinnate, pinnules more or less decurrent, lobed at the base, with the one next the stalk on the upper side of the pinnæ much larger, sometimes almost pinnate, all prickly serrate. They spring about March or April and are evergreen—one year's fronds remaining until the next are fully developed, and not unfrequently two or three years' fronds may be found on the same plant.

VEINS very much branched.

SPORE CASES with a circular covering are arranged in two lines parallel with the midvein of the pinnules, and often

confined to the upper part of the frond, but in fine healthy plants extending to the middle.

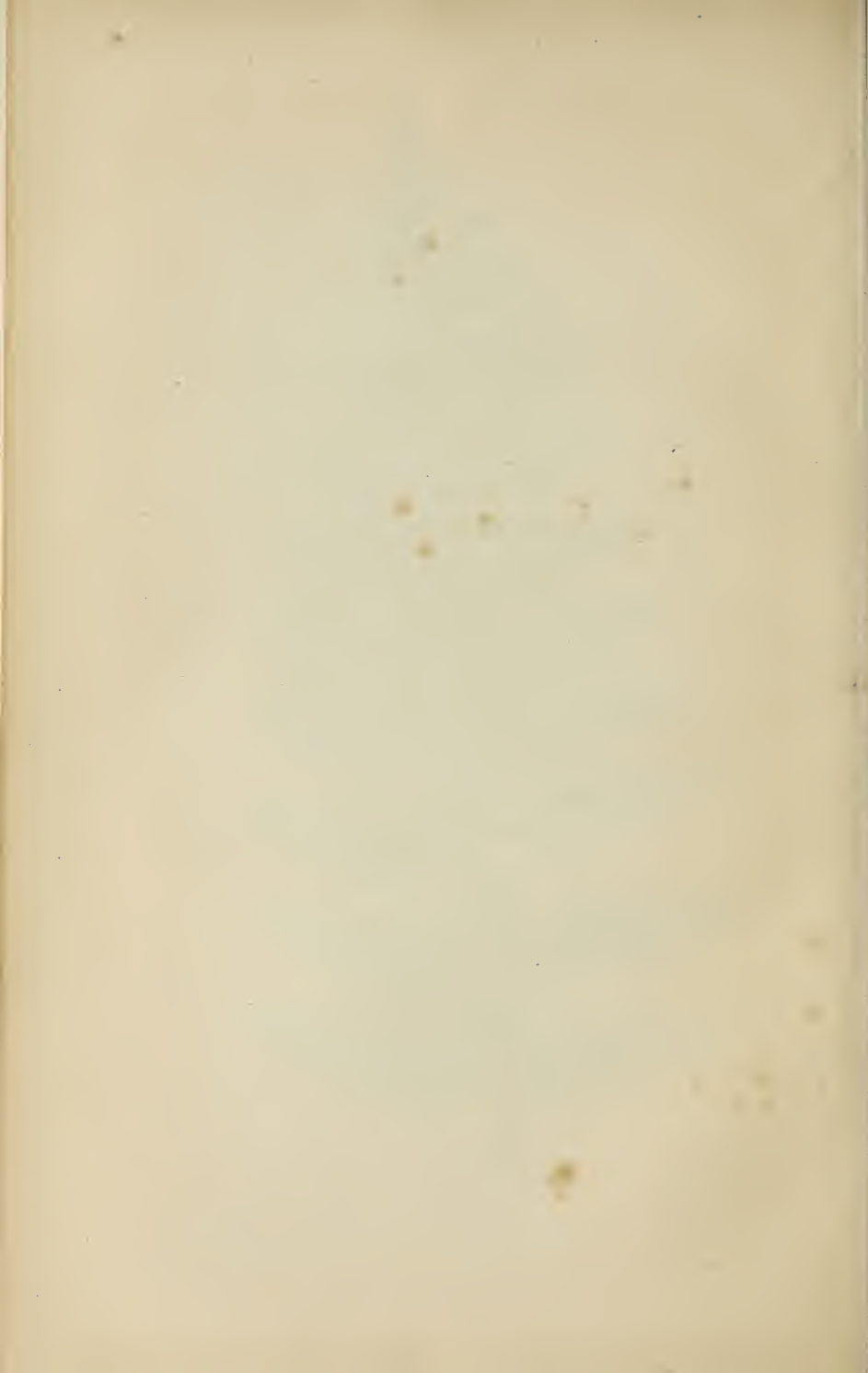
This fern is one of the most striking and attractive in our English Flora, not unfrequently growing to the height of four feet and even more. It is often forked at the ends of the fronds and pinnæ. It can be, under ordinary circumstances, very readily distinguished from *P. angulare* by its truly decurrent pinnules, those of *P. angulare* being distinctly stalked, and the pinnules set sharp on to the stalk, so that when held up to the light distinct openings run along both sides of the midrib of the pinnæ. This feature I have seen remarkably distinct in Worcestershire and Suffolk specimens. I have gathered the fern in most of the English and Welsh counties, and find the *P. aculeatum* to be, under healthy circumstances, invariably much *larger* and *coarser* than *P. angulare*.

LOCALITIES.

Ardley and Wentbridge.



J. E. F. Fecit



POLYSTICHUM LOBATUM. SWARTZ.

(Close Leaved Prickly Shield Fern.)

SYNONYMES.

The same as those for *P. aculeatum*.

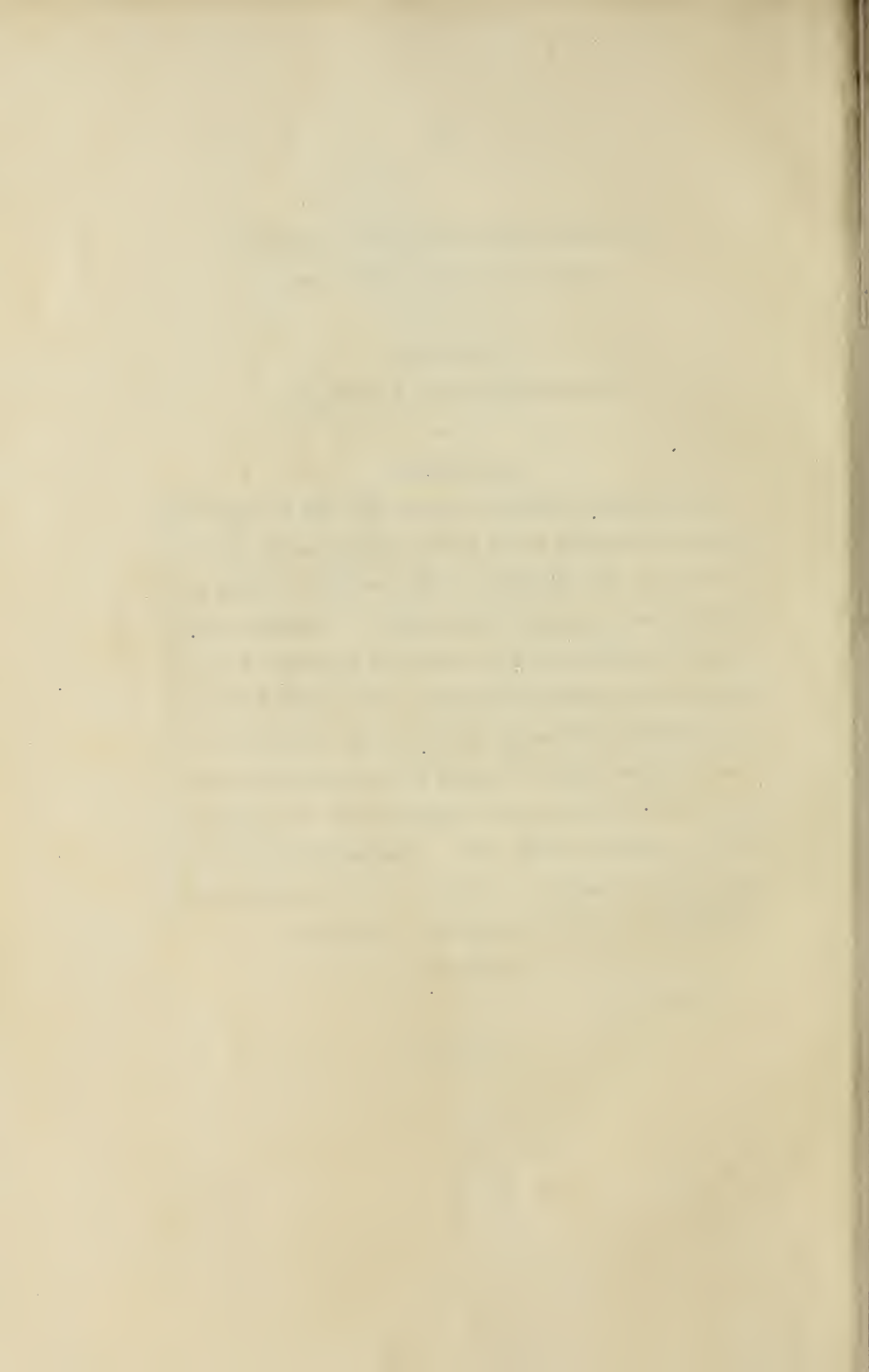
DESCRIPTION.

The principal difference between this and the preceding fern is in the form of the frond, which is much narrower, more rigid, and altogether smaller, seldom growing more than twelve or eighteen inches high. Pinnules without auricles, and only the lower one (and sometimes not that) divided to the midrib of the pinna. The whole frond often only pinnate with deeply toothed pinnæ, as in the variety *lonchitidioides*, which is thought by some to be the connecting link between the more divided forms of prickly ferns and *P. Lonchitis* (Holly Fern). Bernhardt thinks them *all* forms of *P. Lonchitis*. *P. lobatum* is now considered by all botanists to be only a variety of *P. aculeatum*

LOCALITY.

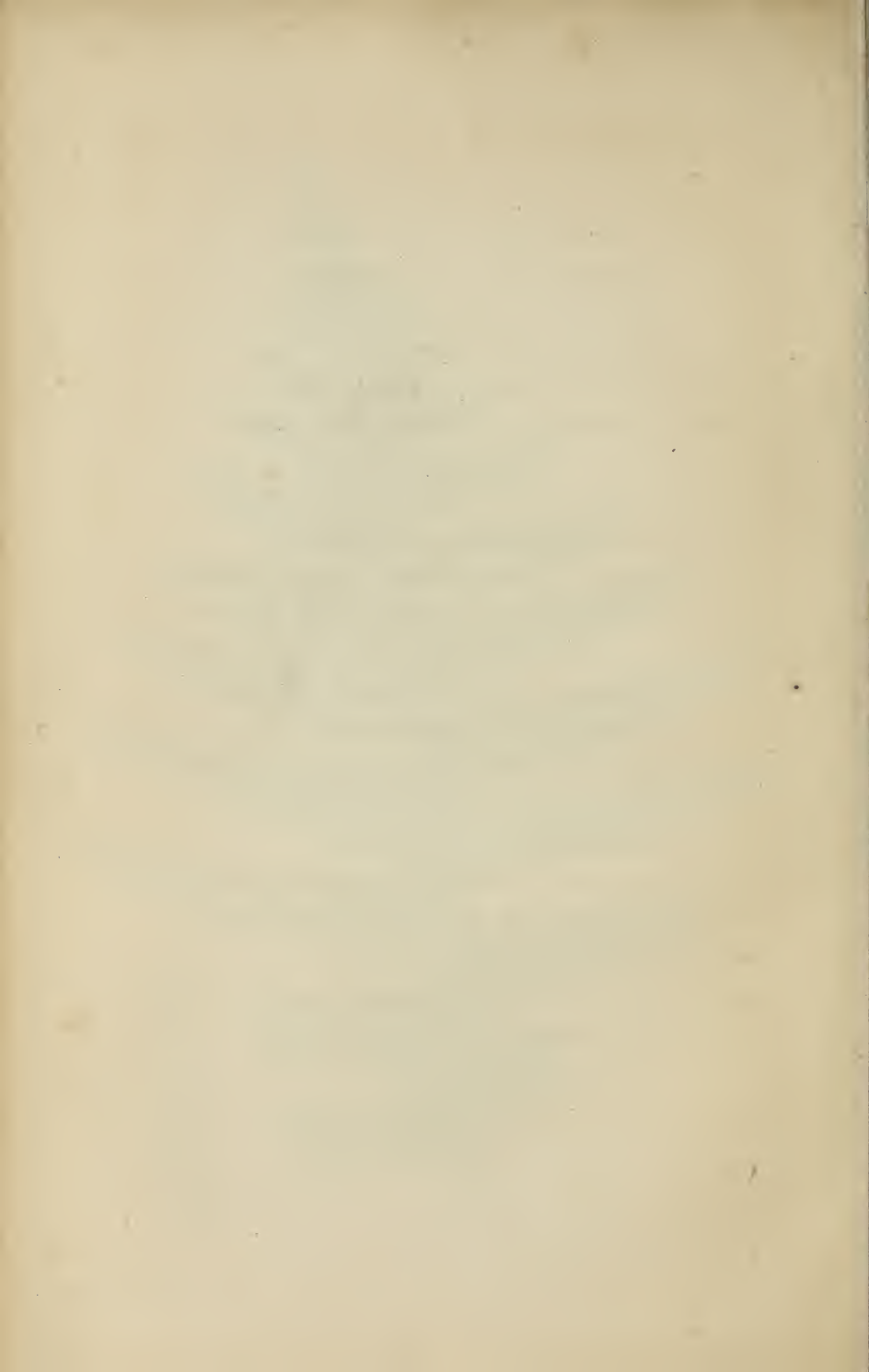
Wentbridge.

PLATE V.





J. E. Faust



POLYSTICHUM ANGULARE. PRESL.

(Angular or Soft Prickly Shield Fern.)

SYNONYMES.

POLYPODIUM ACULEATUM. *Lightfoot, Hudson.*ASPIDIUM ANGULARE. *Willdenow; Smith, Mackie.*

DESCRIPTION.

CAUDEX tufted, with long strong rootlets.

FROND lanceolate, twice pinnate; pinnules distinctly stalked and lobed at the base, and toothed, each tooth ending with a spine. The main stalk densely covered with rusty scales, as are those of the pinnæ, and nearly all the back of the frond. It appears about April, and in sheltered places is evergreen, and from a foot to three feet high.

VEINS much branched.

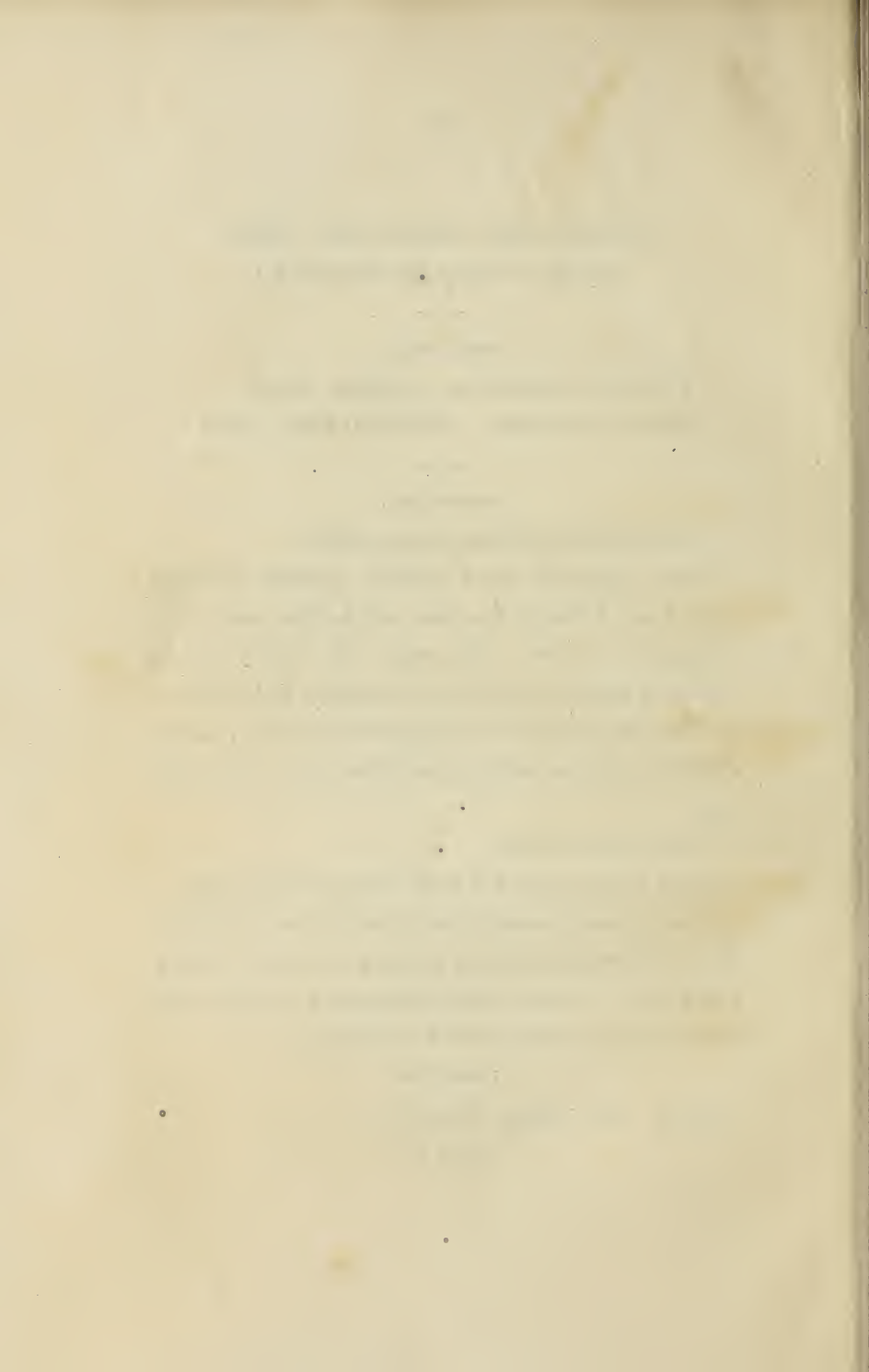
SPORE CASES arranged as in the two preceding plants.

This is a most beautiful and graceful plant growing in dense tufts, with the fronds drooping outwards, and of a pale green. It is very easily distinguished from the other prickly ferns, as shown under *P. aculeatum*.

LOCALITIES.

Nostel. (Mr. Watson, Ackworth.)

PLATE VI.





J. E. Fecit



LASTREA OREOPTERIS. PRESL.

(*Mountain Buckler Fern, or Heath Shield Fern.*)

DERIVATION OF NAME. The specific name given in honour of M. Delastre, a French botanist. The generic name is from *oros* a mountain, and *pteris* a fern.

SYNONYMES.

POLYPODIUM FRAGRANS. *Linneus.*

POLYPODIUM OREOPTERIS. *Withering.*

POLYPODIUM THELYPTERIS. *Bolton.*

POLYSTICHUM MONTANUM. *Roth.*

ASPIDIUM OREOPTERIS. *Swartz, Hooker and Arnott, Bentham.*

LASTREA MONTANA. *Newman.*

DESCRIPTION.

CAUDEX tufted and scaly, yearly increasing ; with strong, tough rootlets, spreading in all directions.

FRONDS almost erect, lanceolate pinnate, with pinnatifid divisions, slightly indented ; lower pinnae very short, stalks very short, covered at the bottom with pale brown scales. When the fronds are unfolding the exerted ends of the pinnules give the folded portion a remarkably jagged appearance, very marked, and peculiar to this fern. Pale yellowish green appearing at the end of April and beginning of May.

VEINS. Alternate, simple, or branched, at the ends of which and very near the margin of the pinnule are the circular

SPORE CASES which are either covered or naked; but apparently, as observed by Mr. Newman, much more frequently naked at all stages.

This fern is very permanent in its form. The only variety I have ever met with, being a very crisped form, in South Wales. The under surface of the frond is covered with small glandular globules emitting a strong odour; hence the plant has been called the "fragrant fern."

LOCALITY.

Netherton. Hemsworth (T. M. K. Hughes, Esq.)

PLATE VII.



J. E. F. Fecit.

LASTREA FILIX-MAS. PRESL.

(Male Fern or Common Buckler Fern.)

SYNONYMES.

POLYPODIUM FILIX-MAS. *Linnæus, Lightfoot, Hudson,*
Withering.

POLYSTICHUM FILIX-MAS. *Roth.*

ASPIDIUM FILIX-MAS. *Swartz, Smith, Mackay, Hooker and*
Arnott.

DRYOPTERIS FILIX-MAS. *Schott, Newman.*

NEPHRODIUM FILIX-MAS. *Hooker.*

DESCRIPTION.

CAUDEX tufted with strong dark brown rootlets; it lengthens every year, and I have seen it in old woods over four feet long.

FRONDS lanceolate and pinnate; the pinnæ pinnatifid or pinnate with toothed pinnules, they vary in height from four inches to five feet, and are barren or fertile, the varieties being more frequently barren. They appear in April or May.

VEINS. Midvein waved, veinlets alternate and branched, bearing the nearly circular clusters of

SPORE CASES which are completely covered with a kidney shaped involucre.

This fern has many varieties, some of them very curious. I have observed but two in this district—the one with more or less forked pinnules, and the variety generally known as “*incisum*.” The latter is one of the largest and most beautiful forms of the male fern, frequently having deeply serrate pinnules from an inch to an inch and a half long.

USES.

This fern (with which I believe are united—medicinally—nearly all the forms of Shield, Buckler, and the Brake ferns) has for ages been in great repute as a remedial agent. It is now extensively used to obtain an ætherial oil from the root, which oil is believed by many of our first medical men to be the best vermifuge we possess, notwithstanding the introduction of a number of foreign remedies.

LOCALITIES.

Common almost everywhere.

PLATE VIII.



J. E. Fecit

LASTREA SPINULOSA. PRESL.

(Prickly Buckler Fern.)

SYNONYMES.

POLYPODIUM FILIX-FÆMINA var SPINOSA. Weiss.

POLYSTICHUM SPINOSUM. Roth.

LASTREA SPINOSA. Newman.

LOPHODIUM SPINOSUM. Newman.

ASPIDIUM SPINULOSUM. Hooker and Arnott.

DESCRIPTION.

CAUDEX stout, gradually increasing in length and becoming branched, with numerous nearly black rootlets.

FRONDS linear-lanceolate twice pinnate with the pinnules pinnatifid or only toothed with (generally) well-developed spines. The stalk is always as long and sometimes much longer than the frond, and covered with *very pale* almost transparent scales. The fronds spring in May and are usually erect, growing from one to three feet high.

VEINS alternately branched, with the anterior branches bearing the *circular* clusters of

SPORE CASES covered by a kidney-shaped involucre.

As far as my observation goes, an easily recognised fern. Its upright habit, pale green colour, and almost uniform flatness of the frond readily distinguish it in its native

localities from the coarser, drooping and very frequently recurved *L. dilatata*. The peculiarity, mentioned by Mr. Newman, of the sori being confined to the upper part of the frond, certainly does not apply to the plants in this neighbourhood, as most of the larger, healthy, and well-grown plants have the sori distributed all over the backs of the frond. A variety occurs in Soothill Wood, with very contracted pinnules; in some instances, scarcely toothed and almost spineless. It dies off much earlier than the usual form, thus standing brown and withered when all the other ferns in its vicinity are fresh and green. From some forms of the *L. spinulosa* that I possess from Knaresborough, I believe that this is the fern that was entered in Baines' "Flora of Yorkshire" for *Lastrea cristata*.

LOCALITIES.

In boggy places; and in almost all the moist woods round Wakefield. Soothill Wood, Ardsley, Langley Wood, New-millerdam, Streethouse Common (abundant), Haw Park.

PLATE IX.



J. E. Fecit

LASTREA DILATATA. PRESL.

(Broad Prickly Buckler Fern.)

SYNONYMES.

- POLYPODIUM CRISTATUM. *Linnaeus.*
 POLYPODIUM MULTIFLORUM. *Roth.*
 ASPIDIUM DILATATUM AND SPINULOSUM. *Smith.*
 ASPIDIUM SPINULOSUM. *Swartz.*
 POLYSTICHUM MULTIFLORUM. *Roth.*
 LASTREA MULTIFLORA. *Newman.*
 LOPHODIUM MULTIFLORUM. *Newman.*
 NEPHRODIUM SPINULOSUM *var* DILATATUM. *Hooker.*

DESCRIPTION.

CAUDEX large and tufted with black wiry rootlets.

FRONDS broadly ovate-lanceolate (sometimes triangular) bipinnate with pinnate or pinnatifid pinnules, which are deeply toothed and strongly spinous, and very commonly much recurved. The stalks are usually shorter than the frond, and densely covered at the lower part with *brown* scales, very dark in the centre and shading gradually to very pale at the margin. They usually appear about May and vary in height from a few inches to five feet, the average height, being in favourable situations between three and four feet.

VEINS branched, the anterior branches bearing the nearly circular

SPORE CASES, which are covered with an irregular kidney shaped involucre and scattered over the whole back of the frond.

This is a much coarser fern than the *L. spinulosa*, and often has its pinnules so much recurved as to meet at the back.

LOCALITIES.

Hedges and moist woods, and even on walls and cellar windows in Wakefield.

PLATE X.



J. E. Feil

ATHYRIUM FILIX-FÆMINA. ROTH.

(Lady Fern.)

DERIVATION OF NAME. From *athyros* opened; in allusion to the turning back of the involucre.

SYNONYMES.

POLYPODIUM FILIX-FÆMINA. *Linnaeus.*ASPIDIUM FILIX-FÆMINA. *Swartz.*ASPLENIUM FILIX-FÆMINA. *Bernhardi, Hooker and Arnott, Bentham.*

 DESCRIPTION.

CAUDEX large and erect, with black, fibrous, wiry rootlets.

FRONDS lanceolate, twice pinnate, with the pinnules pinnate or pinnatifid, and in some forms only toothed; surface flat or recurved. From a few inches to four feet high, springing in May and withering early.

VEINS. Midvein waved, with forked lateral veins, bearing the long *slightly curved* mass of

SPORE CASES covered with an involucre, one edge of which is free and split into fine segments.

When freely grown this is one of the most fragile and beautiful of our English ferns. On the other hand, some of the small rigid forms growing in exposed hilly districts

do not at all deserve the name of "Lady Fern." There are many varieties of it, two of which are found frequently in this district, viz—*A. convexum* and *A. incisum*. The former notably at Walton, by the canal, where it is three feet high, and very beautiful.

LOCALITIES.

Moist woods, sides of streams, &c. Heath, Walton, Flanshaw, Newmillerdam, Warmfield, Sharlestone, &c., &c.

PLATE XI.



J. R. F. Fecit

ASPLENIUM TRICHOMANES. LINNÆUS.

(*Maidenhair Spleenwort, Common or Wall Spleenwort.*)

DERIVATION OF NAME. From *a*, without, and *splen*, the spleen; referring to the supposed power of this fern upon that organ.

SYNONYMES.

ASPLENIUM TRICHOMANOIDES. *Withering, Lightfoot.*

ASPLENIUM ANCEPS. *Lowe.*

DESCRIPTION.

CAUDEX tufted, with black, wiry rootlets.

FRONDS linear-lanceolate, pinnate; pinnæ oblong incised, crenate, or entire. Stalks smooth, shining deep brown, almost to the point of the frond. They spring in April and May and during the whole summer; are from two to ten inches long, and evergreen.

VEINS forked, the anterior one bearing the *linear* cluster of

SPORE CASES covered at first by a linear white involucre. As the capsules swell, and become almost confluent, this covering disappears.

This fern will grow freely even in the smoke of towns, and is often found covering walls where it can scarcely be seen for the dirt and cobwebs that so quickly accumulate.

USES.

Ray says it is useful in affections of the chest and lungs. Lightfoot says the Scotch made a tea and syrup for coughs and colds. Old works say it is the plant from which the syrup known as Capillaire is prepared. Gerard says an infusion of it is a good hair wash, and makes "the haire to grow in places that are pild and bare." Formerly considered good for all diseases of the spleen, and capable even of destroying it if used to excess.

LOCALITIES.

Nostel, Newmillerdam, Womersley, Heath.

PLATE XII.



J. E. F. Fecit

ASPLENIUM ADIANTUM-NIGRUM. LINNÆUS.

(Black Spleenwort.)

SYNONYMES.

The name given by Linnæus seems to have been retained by all modern authors.

DESCRIPTION.

CAUDEX tufted with black wiry rootlets.

FRONDS triangular, twice or thrice pinnate at the lower part, with the pinnæ triangular, the ultimate pinnules being more or less toothed; the middle and upper part of the frond being usually pinnate with pinnatifid or toothed pinnæ. They spring about May and continue green through the winter, growing from two or three to eighteen inches high. Stalks black and shining.

VEINS in the pinnules or lobes alternate and forked, each branch bearing a cluster of

SPORE CASES covered with a white *linear* involucre which eventually disappears and the clusters become confluent.

This fern grows freely in the country under almost any circumstances; but in towns it seems at best only just to live, sending up a few fronds that soon become dwarfed and misshapen. In moist hedge-banks it is a beautiful object, but grows to its largest size amongst brambles and the roots of fences.

USES.

The same as those ascribed to *Asplenium Trichomanes*.

LOCALITIES.

Hedge banks, walls. Lofthouse (Mr. Forrest), Royston,
Nostell.

PLATE XIII.



J. E. Seel



ASPLENIUM RUTA-MURARIA. LINNÆUS

(Wall-rue Spleenwort.)

SYNONYMES.

ASPLENIUM MURALE. *Bernhardi.*AMESIUM RUTA-MURARIA. *Newman.*SCOLOPENDRIUM RUTA-MURARIA. *Roth.*TARA CHIA RUTA-MURARIA. *Presl.*PHYLLITIS RUTA-MURARIA. *Mench.*

DESCRIPTION.

CAUDEX tufted, black, with bristly scales and wiry black rootlets.

FRONDS triangular, twice pinnate or pinnate with crenate or toothed, stalked, diamond shaped pinnules. Stalks long and green, blackish at the base. Fronds spring about May and are green throughout the winter, being from an inch to six inches high. Seedlings kidney shaped.

VEINS forked, "the branches or venules usually corresponding with that of the marginal teeth," and bearing the *linear*

SPORE CASES, covered with narrow involucre jagged at the margin; these coverings soon disappear as the spore cases become confluent and spread entirely over the frond.

This fern is found under almost all circumstances, from

the dingy walls of thickly populated cities to the crevices and caves of our wildest mountain solitudes. It is difficult to establish it on a town rockery, but grows pretty freely in a greenhouse.

USES.

In addition to the virtues of the other spleenworts Gerard considered this an excellent diuretic, and he adds—"It is commended against ruptures in young children, and some affirm it to be excellent good, if the powder thereof be taken continually for forty daies together."

LOCALITIES.

Old walls, rocks, &c. Womersley, Sandal, Thor nes, Newmillerdam, Nostell, Stanley, Heath.

PLATE XIV.



J. E. F. Fecit

SCOLOPENDRIUM VULGARE. SYMONS.

(Hart's Tongue or Hart's Tongue Spleenwort.)

DERIVATION OF NAME. From *scolopendra*, the name of a genus of Centipedes, to the feet of which the fructification is supposed to bear resemblance.

SYNONYMES.

ASPLENIUM SCOLOPENDRIUM. *Linnaeus.*SCOLOPENDRIUM OFFICINARUM. *Swartz.*SCOLOPENDRIUM PHYLLITIS. *Roth.*PHYLLITIS SCOLOPENDRIUM. *Newman.*

 DESCRIPTION.

CAUDEX black tufted and scaly, with black strong rootlets.

FRONDS simple linear and heart shaped at the base, varying from one inch to four or five wide, and from two or three inches to three or four feet high. It springs in April and is green throughout the winter.

VEINS forked, to the outside of which are attached the line of

SPORE CASES covered by a white involucre. Two lines of capsules are produced side by side and at length becoming confluent form the characteristic fructification of the Scolopendrium.

This fern will grow almost anywhere, and perhaps no other has been so much cultivated for its varieties, *sixty-six* being enumerated in the folio edition of Nature Printed Ferns. Most of these varieties seem permanent and are reproduced from *spores* and from the same roots year after year. No special varieties have been found in this neighbourhood.

USES.

Ray and Lightfoot recommend it as an application to wounds, burns, &c. Gerard says "*Dioscorides* teacheth, that being drunke in wine it is a remedie against the bitings of serpents. It doth open the hardnesse and stopping of the spleen and liver, and all other griefes proceeding of oppilations or stoppings whatsoever." Parkinson says "divers doe also commend the distilled water thereof to bee taken against the passions of the heart, and to stay the hicket, and to help the falling of the pallate, to stay the bleeding gums if the mouth be gargled therewith."

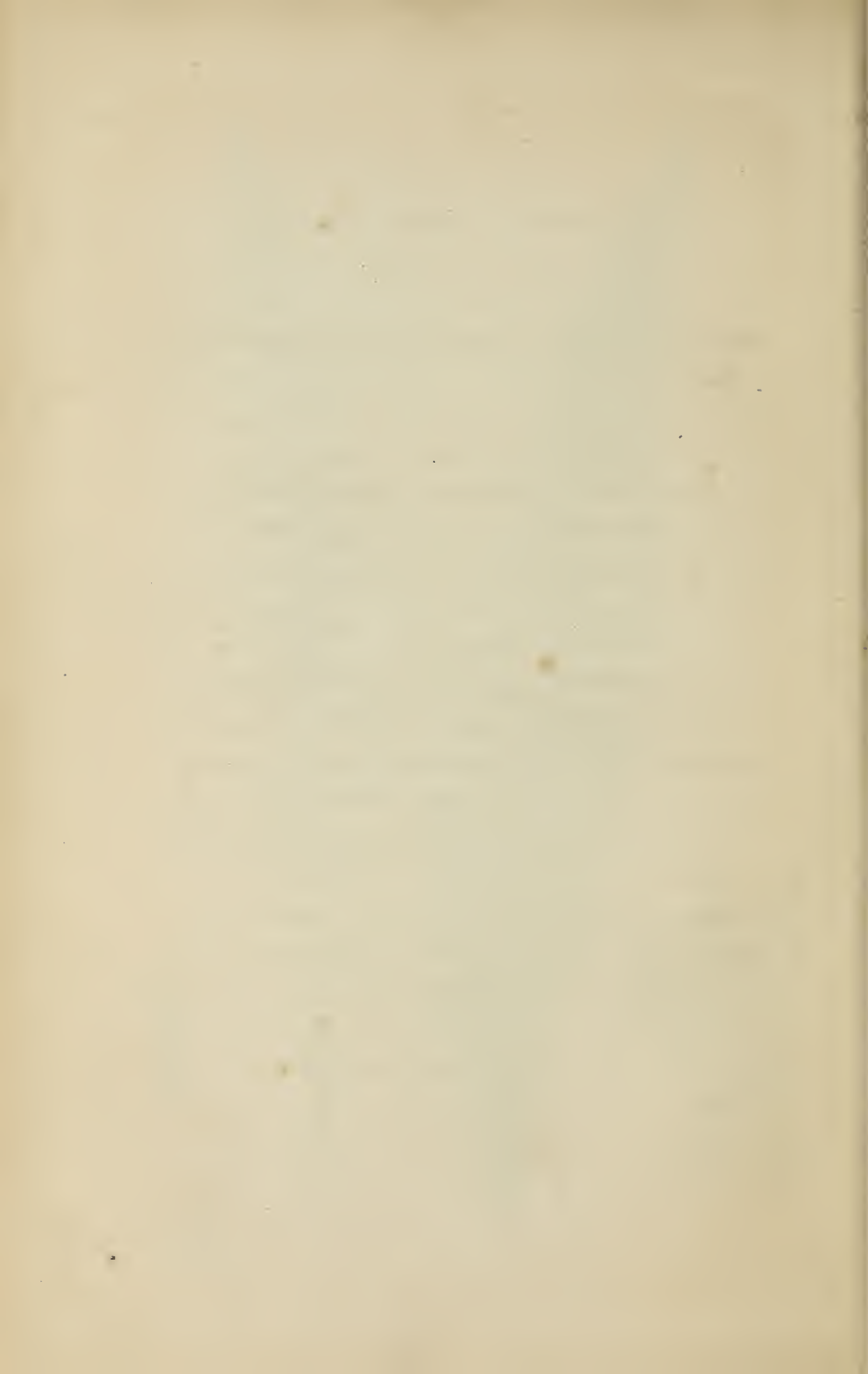
LOCALITIES.

Walls, rocks, woods, and hedges. Nostell, Newmiller-dam, Thornes, Horbury. Three years since tolerably plentiful in Hell Lane, but now quite eradicated, not for *scientific* but *rockery* purposes.

PLATE XV.



J. E. Fecit



BLECHNUM BOREALE. SWARTZ.

(Common Hard Fern.)

DERIVATION OF NAME. Latinised from *blecknon*, a Greek name for a fern.

SYNONYMES.

OSMUNDA SPICANT. *Linnaeus, Lightfoot, Hudson.*

BLECHNUM SPICANT. *Withering, Newman, Moore.*

LOMARIA SPICANT. *Desvoux, Newman.*

DESCRIPTION.

CAUDEX tufted and hairy, with black, strong rootlets.

FRONDS of two kinds, barren and fertile. Barren ones shortest, pinatifid with oblong pinnæ. Fertile frond pinnate with linear pinnæ. They spring about May, and the barren ones are sometimes found green throughout the winter, but the fertile ones wither at the end of autumn.

VEINS forked, the branches forming a continuous line about midway between the midvein and margin of the pinnæ, all along the side of this continuous vein are attached the

SPORE CASES covered by a linear white involucre.

This fern is very liable to variation, and such is the present rage for establishing varieties of it that it would be

hazardous to conjecture how many forms are enumerated or when the discoveries will cease. The commonest variety as far as my observation goes is the *B. multifidum*, which has the apex of the fronds forked more or less, but this variation is more frequently confined to the barren fronds.

USES.

This fern was formerly supposed to possess the same virtues as the Spleenworts, "and the greene leaves to be regular good for wounds, and to keepe them from inflammations."—*Parkinson*.

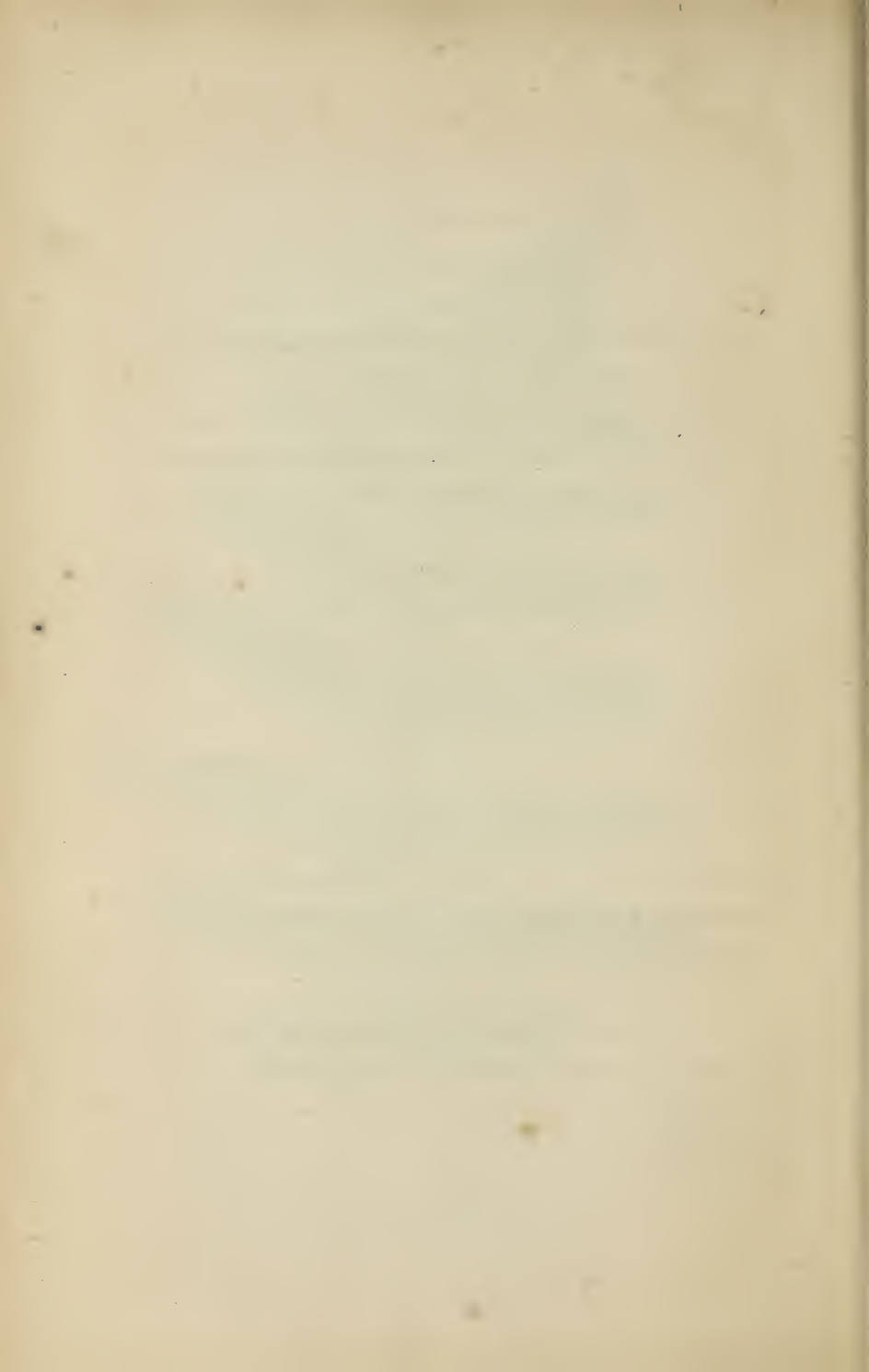
LOCALITIES.

In woods, heaths, boggy places, &c. Ardsley, Ackworth, Heath.

PLATE XVI.



H. J. F. ...



PTERIS AQUILINA. LINNÆUS.

(Common Brake or Bracken.)

DERIVATION OF NAME. The name *pteris* is Greek, signifying a fern. *Pteris* is from *pteron*, a wing or feather, in allusion to the form of the fronds. The specific name is from the Latin *aquila*, an eagle, from the fancied resemblance to an eagle in the root when cut across.

 SYNONYMES.
ALLOSURUS AQUILINUS. *Presl.*EUPTERIS AQUILINA. *Newman.*

 DESCRIPTION.

CAUDEX creeping, dark brown, and succulent, with brown fibrous rootlets.

FRONDS in general form are somewhat triangular, twice or thrice pinnate, with pinnatifid pinnules. They spring about May and wither early. The whole frond has sometimes a very crisped form, which in young plants is very beautiful, but it is always barren.

VEINS forked, reaching to the margin where they are united by a marginal vein along which appear the

SPORE CASES, covered by a membrane attached to the marginal vein.

The only variety (unless the crisped form be considered one) I have ever seen of this fern is a simple fork at the end of some of the pinnæ. It varies very much in size and I have found it from one foot to thirteen feet high.

USES.

This fern is perhaps more used for various purposes than any other. In different countries the various parts of it are used for thatching, fuel, bread, litter for cattle, mixed with malt to make beer, food for pigs, manure (it is said to produce the best potatoes), fodder, in the manufacture of soap and glass on account of the alkali it contains; the ashes are mixed with enough water and made into balls, allowed to dry, and when required for use are burnt to a red heat and thrown into water, which in an hour becomes a strong ley; it is used too for tanning. It was called by Gerard and the old authors the Female Fern, and was used medicinally in numerous ways, one of which was as a vermifuge, and its roots are no doubt now collected with those of the male fern for the same purpose. Gerard goes on to say that "the root hereof is reported to be good for them that have ill spleenes; and being stamped with swine's grease and applied it is a remedie against the pricking of the reed; for proof hereof, Dioscorides saith the ferne dieth if the reed be planted about it; and contrariwise, that the reed dieth if it be compassed with ferne; which is vain to think that it hapneth by any antipathie or naturall hatred,

and not by reason this ferne prospereth not in moist places,
nor the reed in dry."

LOCALITIES.

Heath, woods, hedges, and indeed almost everywhere
except the wettest bogs.

PLATE XVII.



J. R. F. Fecit

BOTRYCHIUM LUNARIA. SWARTZ.

(Moonwort.)

DERIVATION OF NAME. From the Greek, *botrys*, a bunch of grapes, on account of the appearance of the clusters of capsules.

SYNONYME.

OSMUNDA LUNARIA. *Linnaeus, Lightfoot, Hudson, Withering, Smith.*

DESCRIPTION.

CAUDEX short with roots branching from it in a somewhat whorled order.

FROND compound, consisting of a barren and fertile branch. Barren branch leafy and pinnate with half-moon shaped pinnæ, sometimes much divided and at others only crenate; they are sometimes partially fertile. Fertile branch consisting of the clusters of spore cases more or less branched. The stalk is covered at the base with brown sheaths. The frond springs about May and withers towards the end of August; and grows from one inch to eight inches high.

VEINS of the barren branch rising from the base of the pinnules and irregularly forked.

SPORE CASES globular and two valved, which when mature open transversely and allow the seed to fall.

USES.

Astringent. Gerard says "It is singular to heale greene and fresh wounds. It hath beene used among the Alchymistes and witches to doe wonders withall, who say, that it will loose lockes, and make them fall from the feet of horses that grase where it doth grow, and hath beene called of them *Martagon*, wheras in truth they are all but drowsie dreams and illusions." Parkinson gives the same account, and adds, some "have beene so audacious to contest with those who have contradicted them, that they have both knowne and seene it to doe so; but what observation soever such persons do make, it is all but false suggestions and meere lyes. Some Alchymists also in former times have wonderfull extolled it to condensate or convert quicksilver into pure silver, but all these tales were but the breath of idle headed persons, which divers to their cost and losse of time and labour have found true, and now are vanished away with them, like the aire or smoake therein."

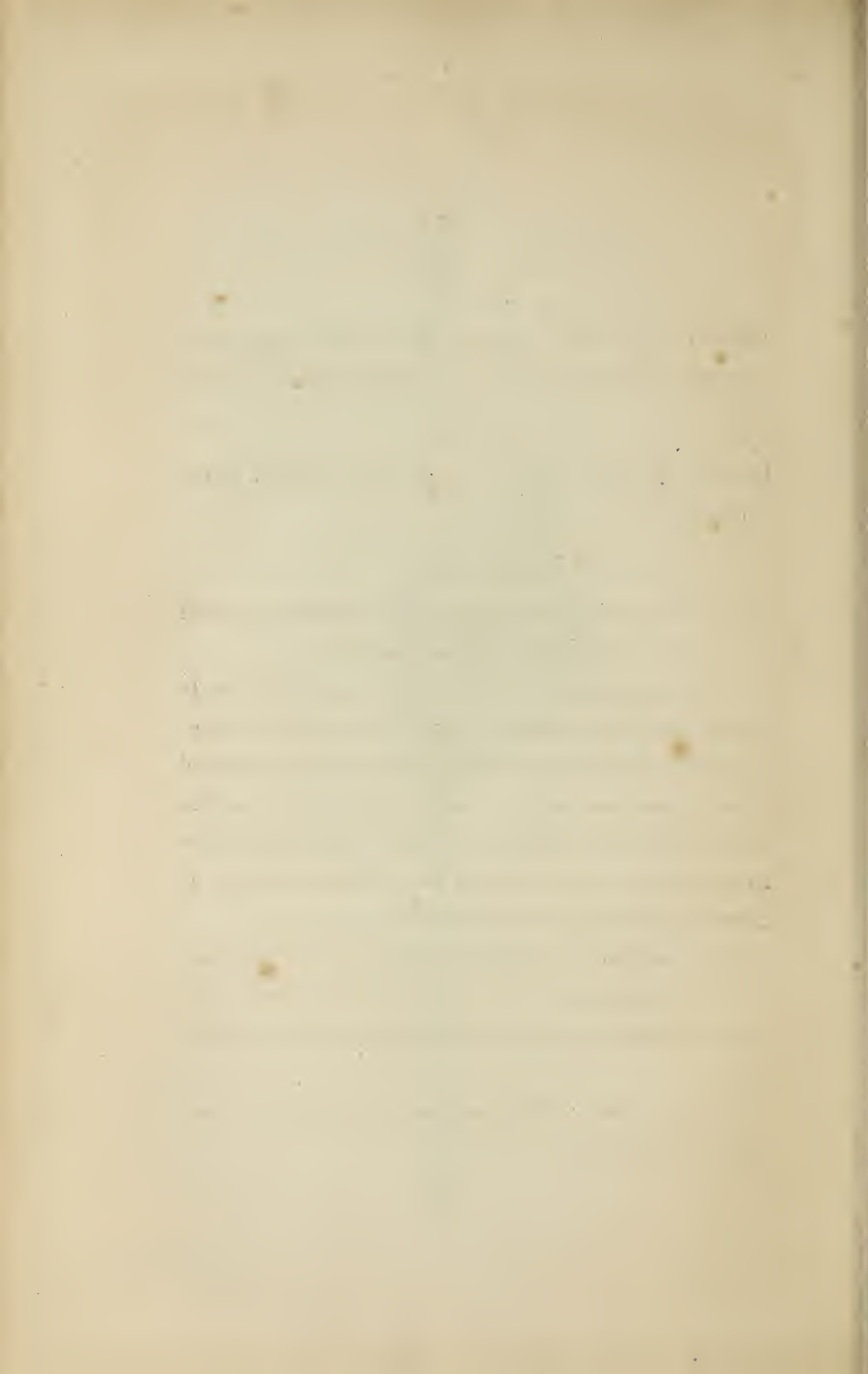
LOCALITY.

Dry upland pastures. Stanley.

PLATE XVIII.



J. C. Fecit



OPHIOGLOSSUM VULGATUM. LINNÆUS.

(Adder's Tongue.)

DERIVATION OF NAME. From *ophios* a serpent, and *glossa*, a tongue; the fertile branch resembling an adder's tongue.

SYNONYMES.

Linnæus and all our modern botanists have adhered to the present name.

DESCRIPTION.

CAUDEX very short with fleshy roots, "from some of which a new plant will sometimes spring."—Moore.

FROND compound, consisting of a barren and fertile branch; the barren portion consists of one ovate leaf from the base of which springs the fertile branch, being the stalked spike of spore cases which is usually much larger than the barren portion and sometimes forked. It springs about April and soon withers with the hot weather of summer. It grows from one inch to ten inches high.

VELNS compound, covering the whole of the barren leaf.

SPORE CASES arranged along each side of the fertile spike and when mature opening transversely and discharging the spores.

The only variety of this fern found in this district is that with the spike forked.

USES.

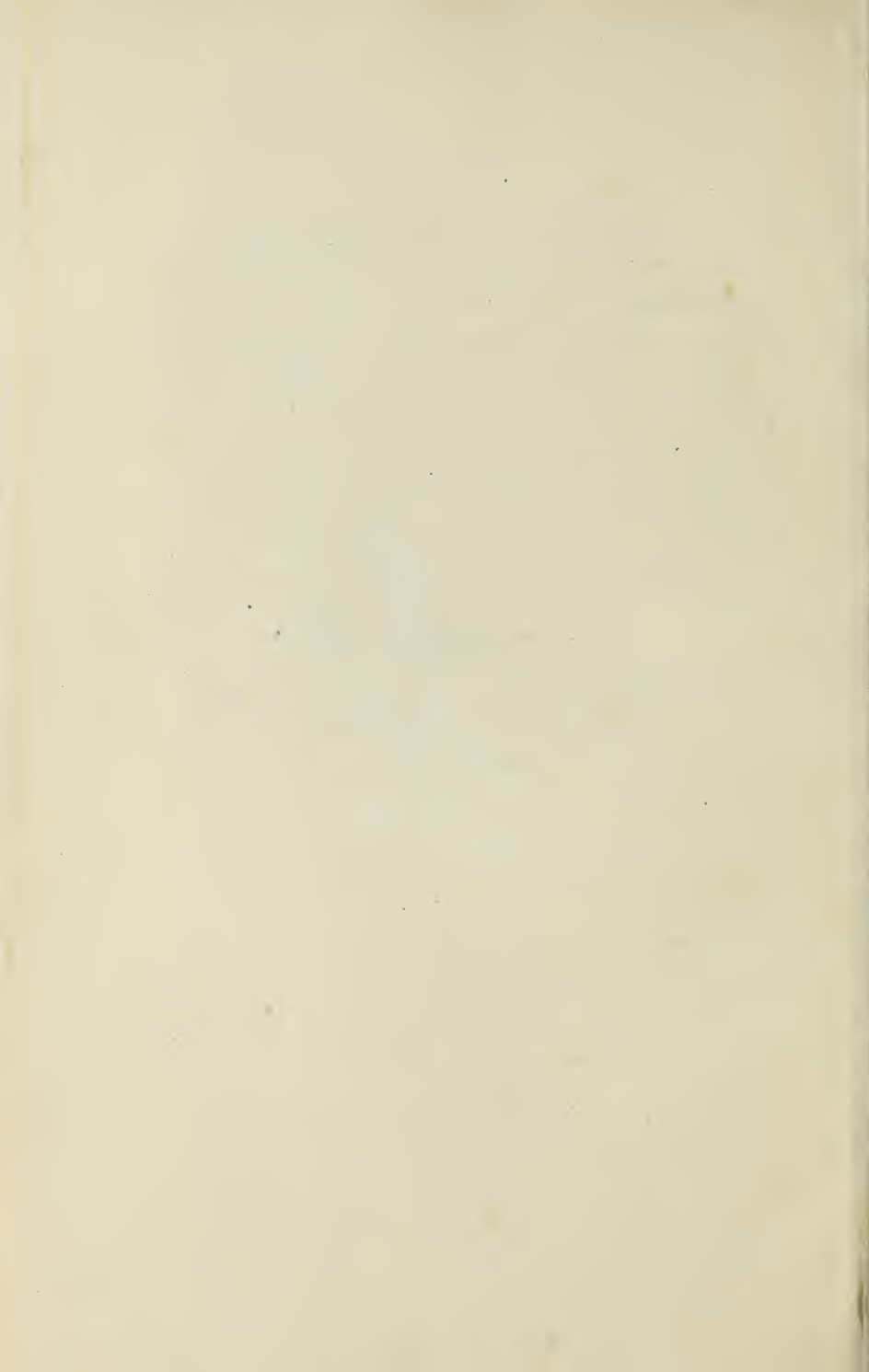
In Worcestershire and Herefordshire this plant is very extensively used by the country people to make an ointment for wounds, burns, &c., called "nedder ointment," and under this name it is often asked for at chemists. Gerard recommends it to be "stamped in a stone mortar, and boiled in oile olive unto the consumption of the iuyce, and untill the herbes be dry and parched, and then strained," when it will yield an oil equal to oil of St. John's Wort, and used for the same purposes as the above ointment. Parkinson has a much more extensive list of diseases for which it is useful.

LOCALITIES.

Moist woods and pastures. Frequent in different parts of Stanley, Lofthouse, &c.

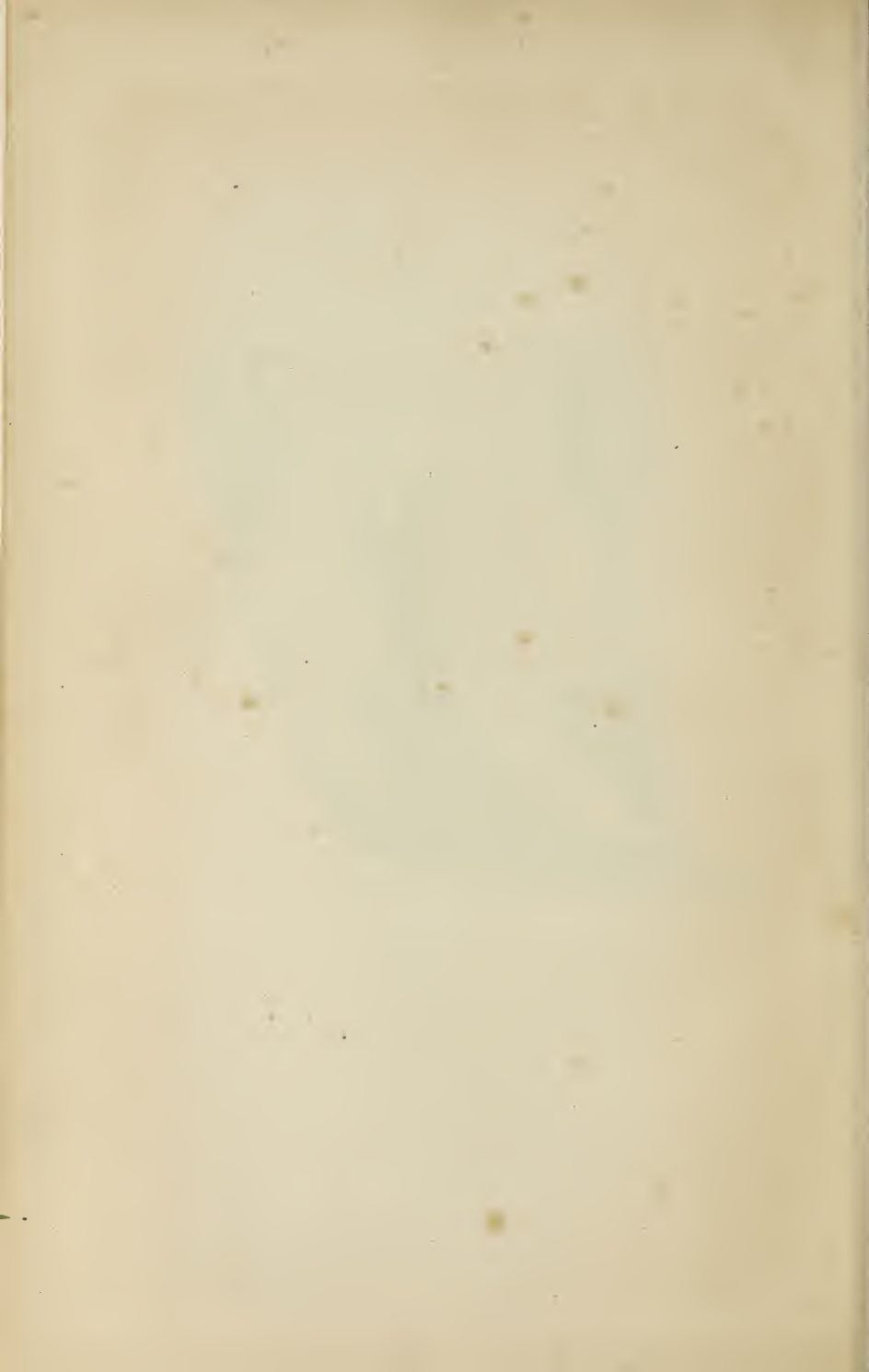
PLATE XIX.

LYCOPODIACEÆ.





J. R. Fecit



LYCOPODIUM CLAVATUM. LINNÆUS.

(Common Club-moss or Wolf's Claw.

DERIVATION OF NAME. From *lycos*, a wolf, and *pous*, a foot, from the supposed resemblance of its branches to the foot of a wolf.

DESCRIPTION.

STEMS creeping, repeatedly forked, and sending out at short intervals strong fibres which quickly take root; leaves small and moss-like, overlying each other, incurved, irregularly toothed, linear, and ending with a hair-like point. Branches usually ascending, from the ends of which spring the

SPIKES which are single or about two or three together and about an inch long, with a stalk at least as long; the scale-like leaves of the stalk being about half the size of the stem leaves, and both spikes and stalk of a yellowish colour.

CAPSULES in the axils of the scales of the spikes which when ripe burst and scatter in great profusion the yellow dust-like spores. Fructification perfect in autumn.

USES.

A decoction of the plant is sometimes used in Poland to cure the *Plica Polonica*, that is, when the sufferers will sub-

mit, for as a rule they prefer retaining *this* disease, under the belief that it keeps away *others* that would certainly follow if the Plica Polonica were cured. Said to restore ropy wine in a few days. The pollen (spores) is very inflammable and used in theatres to imitate lightning, hence in Germany and elsewhere it is said to be extensively used in the manufacture of fireworks. It (the pollen) repels water so strongly, that if it be spread on the surface, the hand can be plunged to the bottom of a basin of that liquid without wetting it. It is used in delicate works to keep the hands from perspiring.

LOCALITY.

Dry heaths and hilly districts. This plant has not been re-discovered in the immediate neighbourhood of Wakefield since 1857, when Mr. C. F. Tootal found a single specimen on Heath Common.

PLATE XX.



J. R. Fecit



LYCOPODIUM SELAGO. LINNÆUS.

(Fir Club Moss.)

DERIVATION OF SPECIFIC NAME. Said to be from the Celtic *sel*, sight, and *jach*, salutary, on account of its being once held valuable for diseases of the eye.

DESCRIPTION.

STEMS slightly decumbent and rooting or erect ; branched with branches usually of about the same length, varying from two to six or seven inches, and covered with dark-green lanceolate leaves, ending with a fine point and closely overlying each other.

SPIKE none ; but the yellow

CAPSULES are situated in the axils of the upper leaves.

This club-moss can be grown in an ordinary greenhouse, and seems to exist there better than any other British species. It is utterly useless for town rockeries.

USES.

Violently emetic, purgative, and narcotic, consequently dangerous to use. Decoction used as a wash to remove insects from swine and cattle. Made into an ointment in Scotland, and applied as a counter-irritant in the neighbourhood of the eyes and for dressing old wounds. The Highlanders use it instead of alum to fix colours in dyeing, and

with Brazil wood it is said to produce a beautiful and permanent *blue*.

LOCALITY.

Heaths and mountainous districts. Discovered by Mr. W. S. Banks near Heath Common, but now eradicated by the making of the new railway from Oakenshaw to Wakefield.

PLATE XXI.



J. E. Fecit



EQUISETUM TELMATEIA. EHRHART.

(Great Water Horse Tail.)

DERIVATION OF NAME. From *equus*, a horse, and *seta*, a hair, whence its English name Horsetail.

SYNONYME.

EQUISETUM FLUVIATILE. *Linnæus* (?), *Smith*.

DESCRIPTION.

FERTILE STEM simple, from four inches to a foot high; light brown colour; from each joint springs a loose sheath which extends to the next joint and is fringed with from ten to thirty teeth. At the end of the stem is the fruitful

SPIKE from one to three inches long, consisting of several whorls of brown scales, beneath which appear the

CAPSULES filled with the minute spores.

BARREN STEMS appear after the fertile ones have withered, are of a pale green colour, and from a few inches to ten or twelve feet high. At each joint is a many toothed sheath and a whorl of branches again much divided, at each joint of which is a four toothed sheath. The barren stems appear about the beginning of May and the fertile ones in March.

This is a most noticeable and beautiful plant when growing in favourable situations. I have seen the barren stems

nearly twelve feet high and completely hiding all the lesser vegetation. This plant combined with very large specimens of the Male Fern and still larger Bracken sometimes give quite a tropical aspect to quiet little English nooks, and one might almost expect to see some of those gigantic extinct old world monsters come crushing through the foliage.

USES.

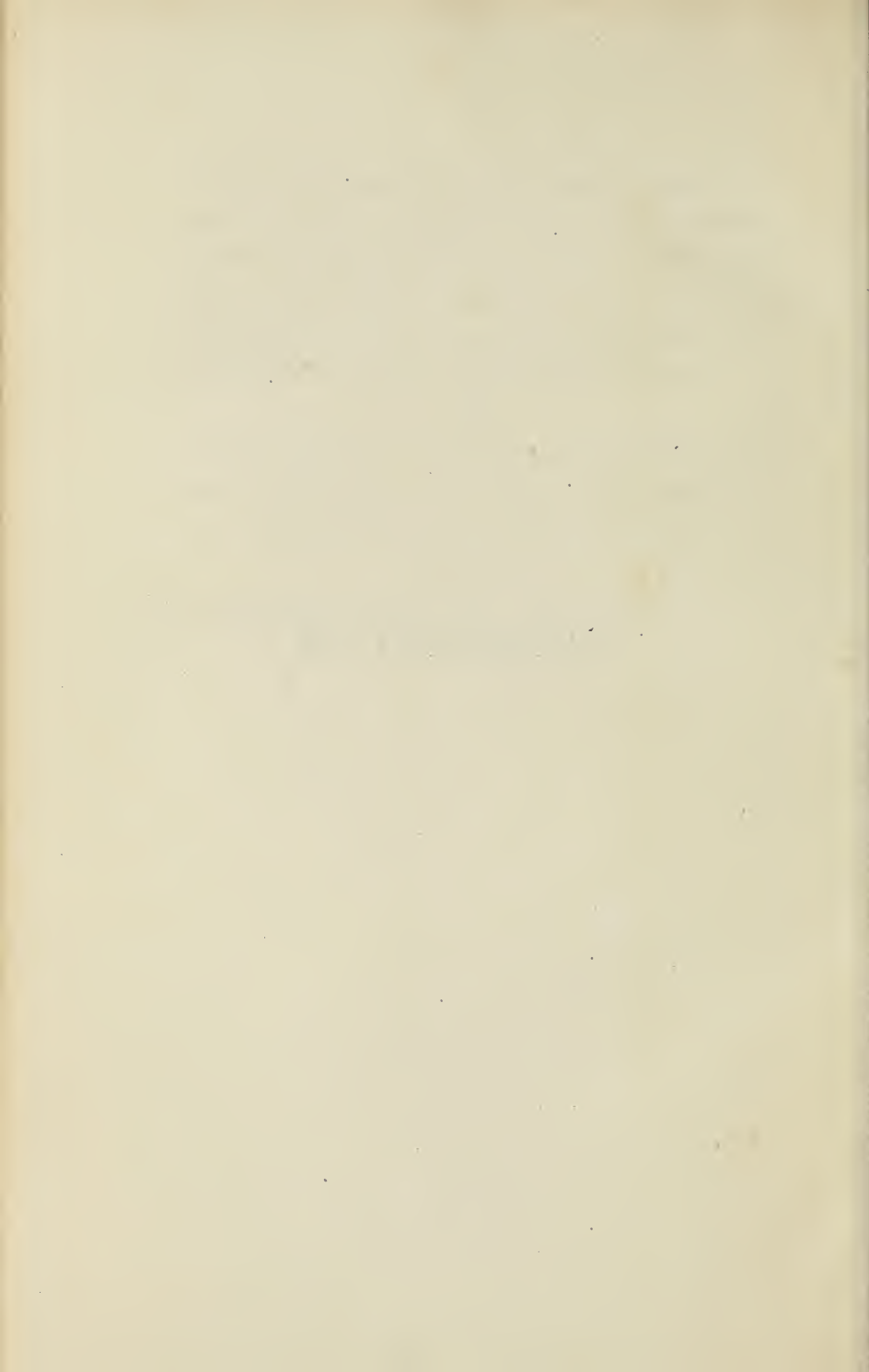
Said to have been used formerly as food by the Normans, and to be still mixed with the food of cattle on the Continent. Diuretic, vulnerary, and general astringent.

LOCALITY.

Boggy places especially woods. Haw Wood.

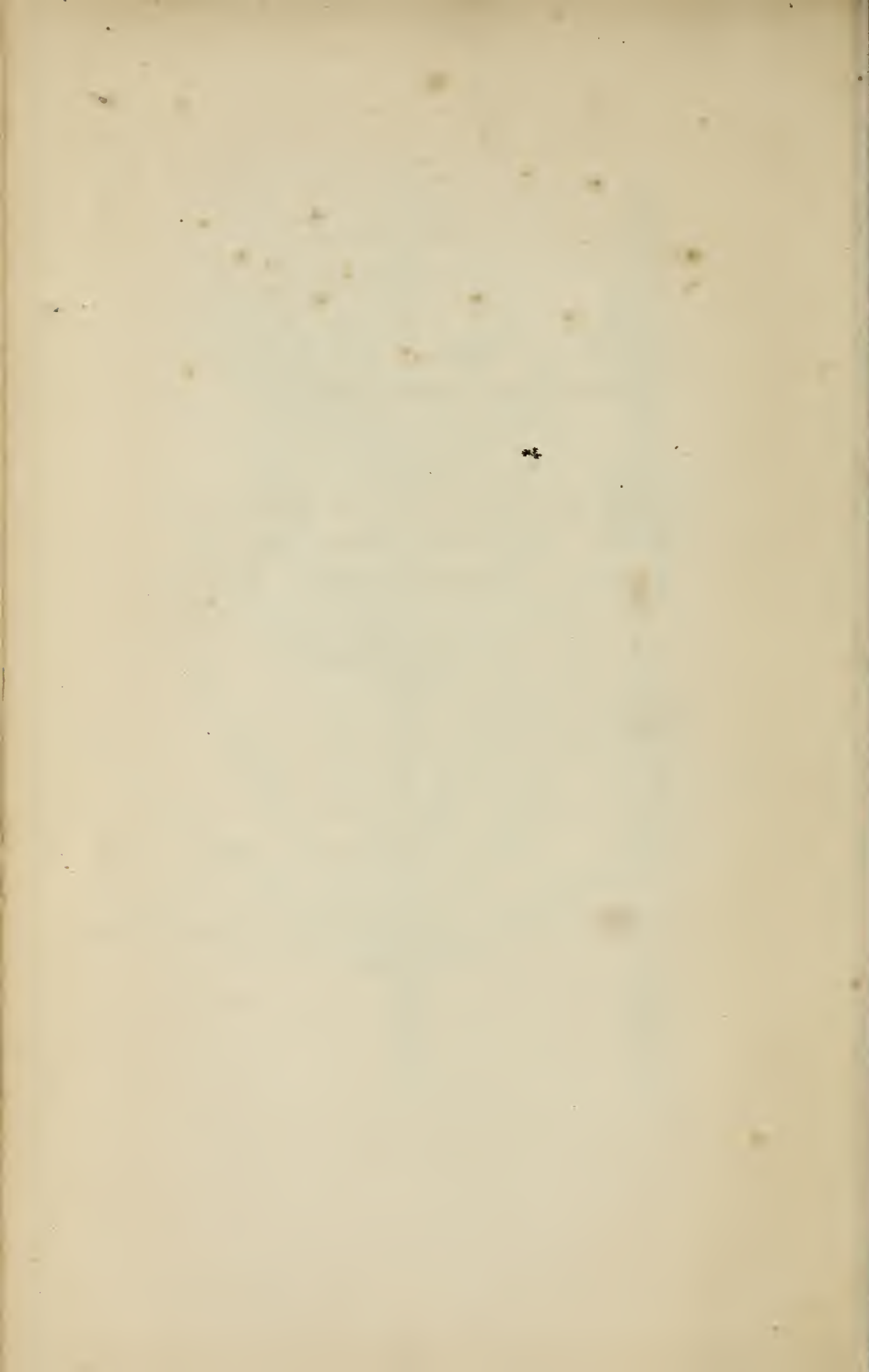
PLATE XXII.

EQUISETACEÆ.





J. E. F. Fecit



EQUISETUM ARVENSE. LINNÆUS.

(Corn or Field Horse Tail.)

SYNONYMES.

The present name is generally adopted.

DESCRIPTION.

FERTILE STEMS, appear about March, are simple, about eight inches high, and pale brown. Sheaths with about ten teeth and tipped with dark brown spring from each joint. At the end is the

SPIKE, about one inch long, with fructification of the kind and arrangement as the *E. Telmateia*.

BARREN STEMS appear after the fertile, are bright green when young, and from six inches to two feet high, with simple or forked whorls of branches springing from each joint. The teeth of the stem joints varying in number, those of the branches usually four.

This plant spreads rapidly and is difficult to eradicate, therefore should be introduced with great caution amongst ferns, its matted and much branched roots in some instances destroying other plants.

USES.

Parkinson says "country huswives doe use any of these rough sorts that are next at hand to scoure their wooden,

peuter and brasse vessels; the young buds are dressed by some like asparagus, or being boyled, are often bestrewed with flower and fryed to be eaten." He likewise says it "soone sodereth together the toppes of green wounds, not suffering them to grow to maturation." In fact he says it is an excellent vulnerary, both externally and internally, and for nearly every kind of hurt.

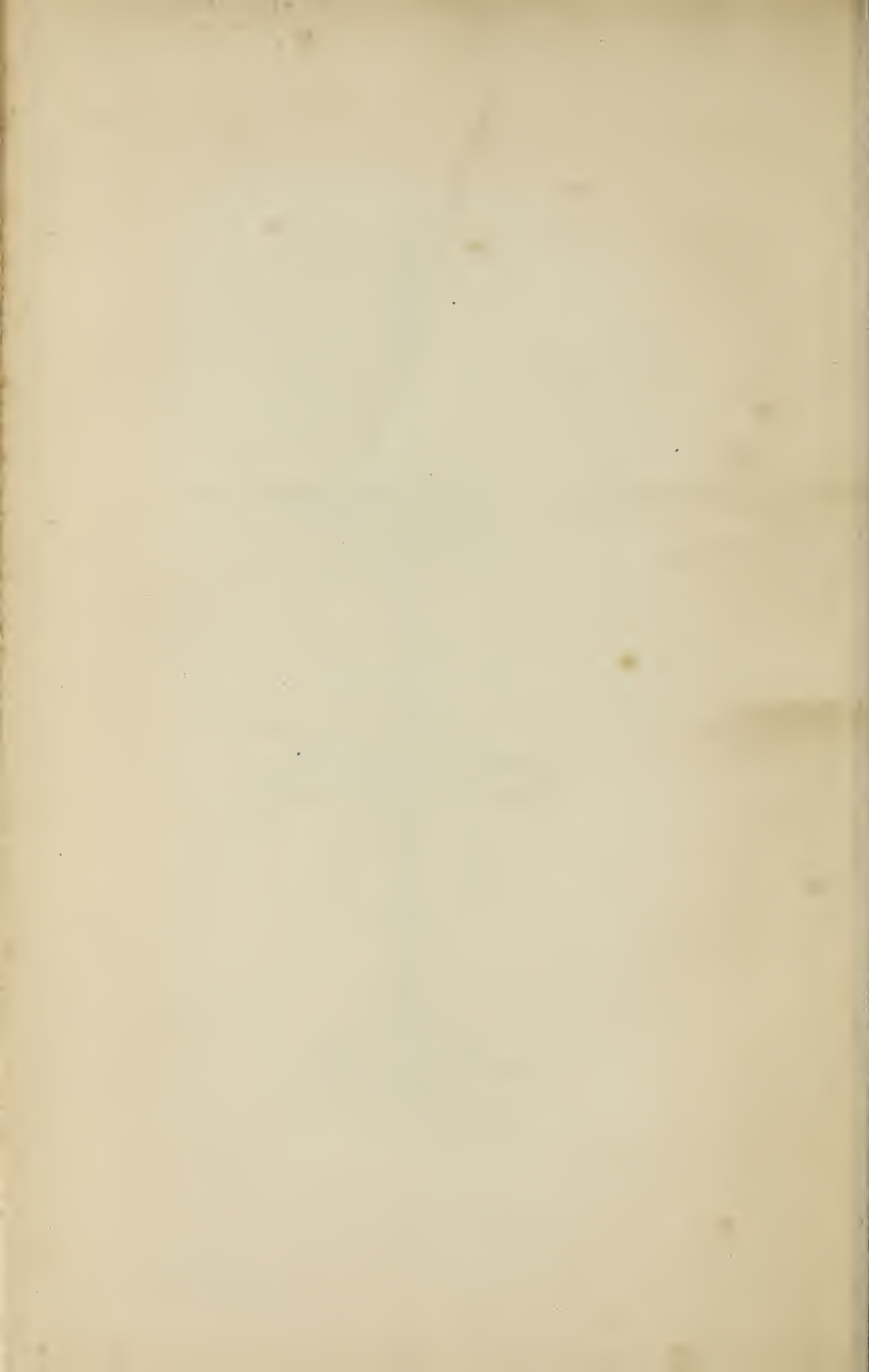
LOCALITIES.

Dry fields, hedges, and railway embankments, abundant.

PLATE XXIII.



J. E. Fecit



EQUISETUM SYLVATICUM. LINNÆUS.

(Wood Horsetail.)

SYNONYMES.

Present name generally adopted.

DESCRIPTION.

FERTILE STEM about twelve or eighteen inches high; with from three to five whorls of branches, each branch being again whorled with much smaller branches. Sheaths distant, pale brown, darker at the points, divided at about the middle, with three or four lobes which are entire or toothed.

SPIKE from half an inch to one inch long, with fructification the same as the preceding species.

BARREN STEMS usually much larger than the fertile, with more whorls and branches more divided. Both barren and fertile stems appear about April. This is a very beautiful plant, and by far the most elegant of the British Horsetails: It has the same tendency to creep as the preceding species, but can be easily introduced into rockeries by planting it in a large pot, sinking the pot in the earth to the rim and keeping the soil constantly wet.

USES.

The same as all the horsetails.

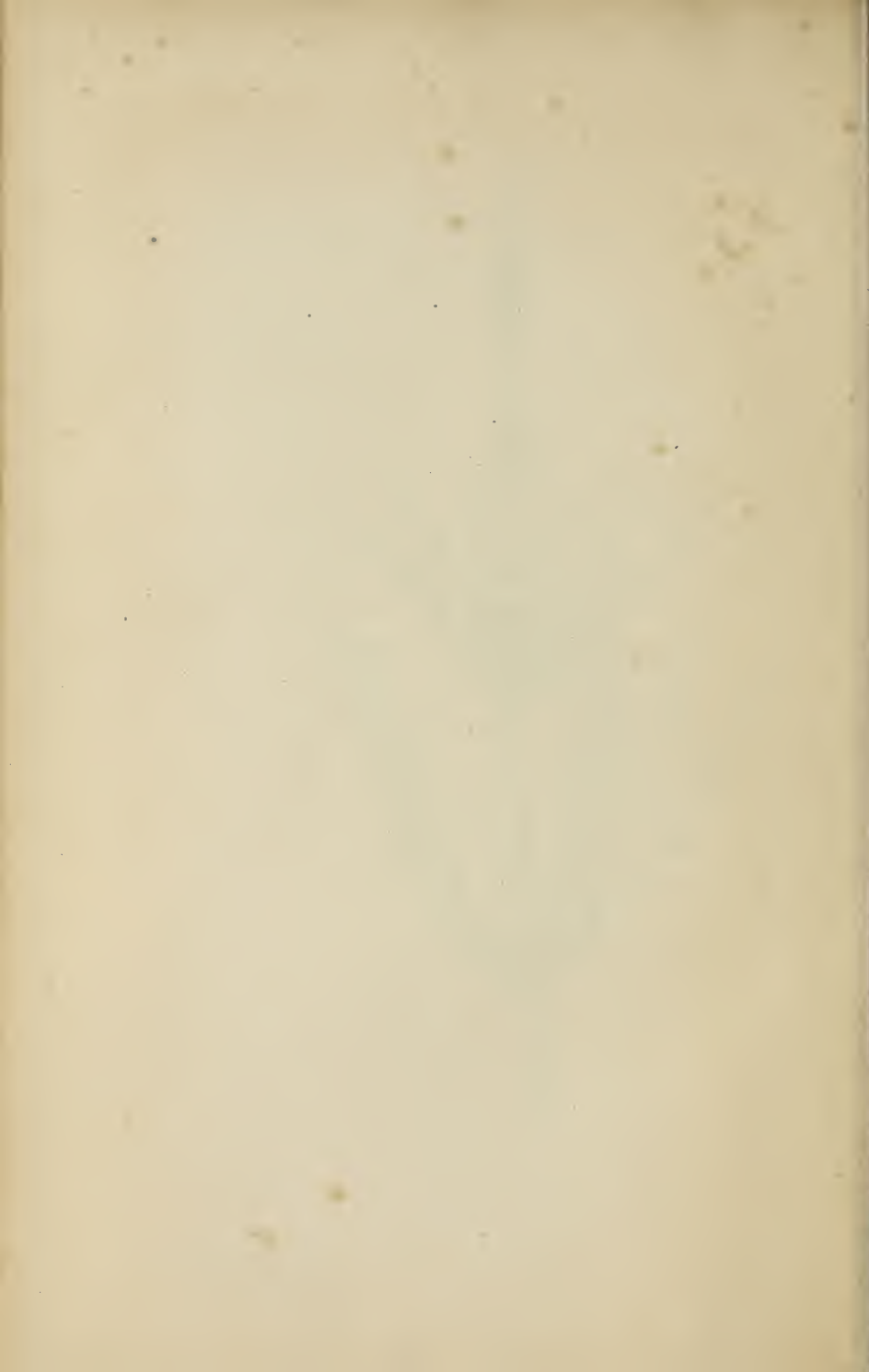
LOCALITIES.

Wet shady woods, &c. Hiendley, Stanley.

PLATE XXIV.



J. E. Fecit



EQUISETUM PALUSTRE. LINNÆUS,

(Marsh Horsetail.)

SYNONYMES.

Present name generally adopted.

DESCRIPTION.

STEMS nearly all fertile, but when barren are the same as the fertile. From a foot to eighteen inches high, with whorls of simple branches. Sheaths distant, with about six teeth with membranous margins and tipped with black. Sheaths of the branches with fewer teeth.

SPIKE about one inch to an inch and half long, with fructification as in the preceding. Two or three varieties of this plant are sometimes found, the most beautiful being the one where the branches of one or two of the upper whorls end in spikes like the terminal one. This plant can be grown in the same way as the *E. sylvaticum*.

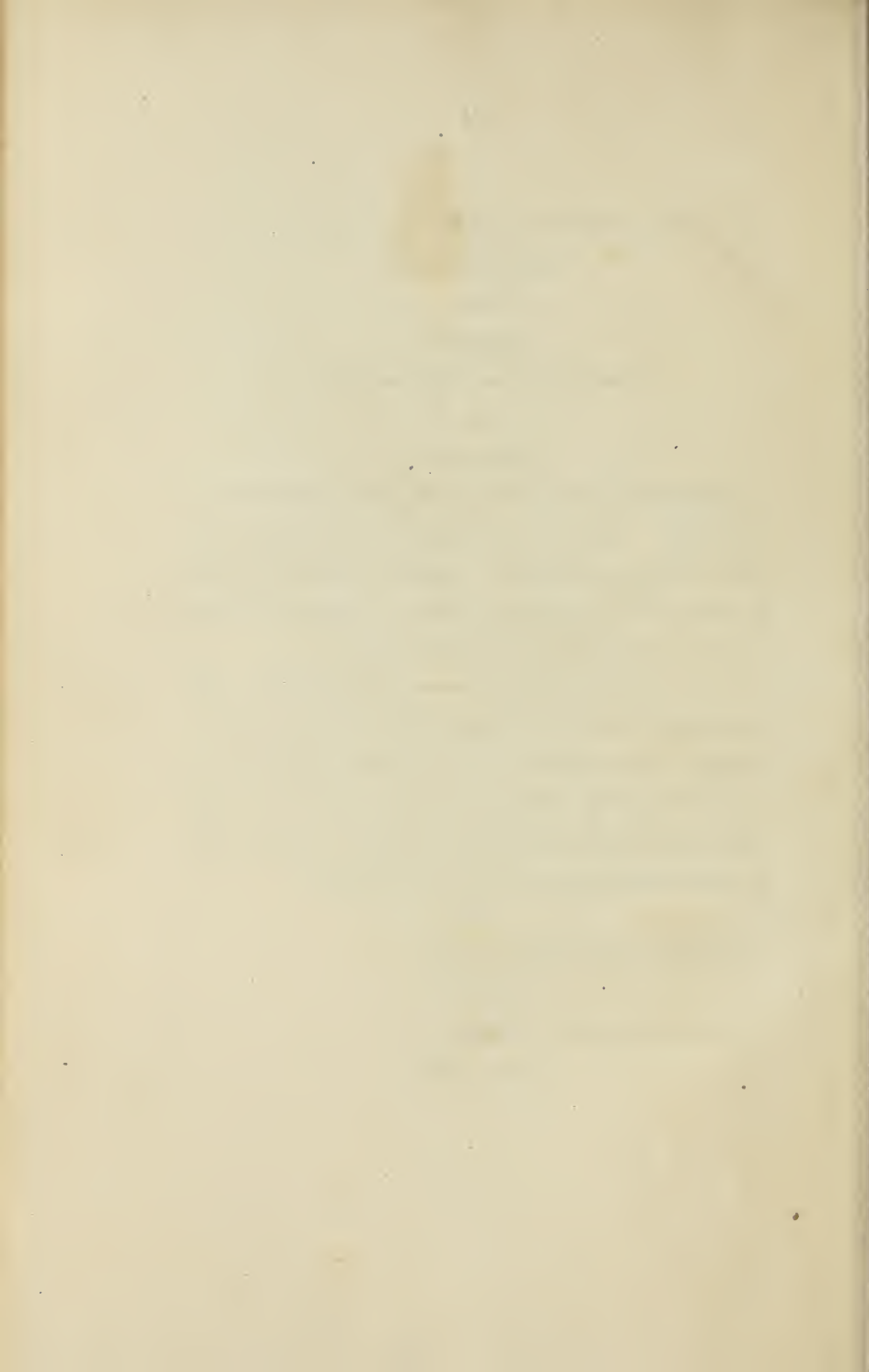
USES.

The same as the other horsetails.

LOCALITIES.

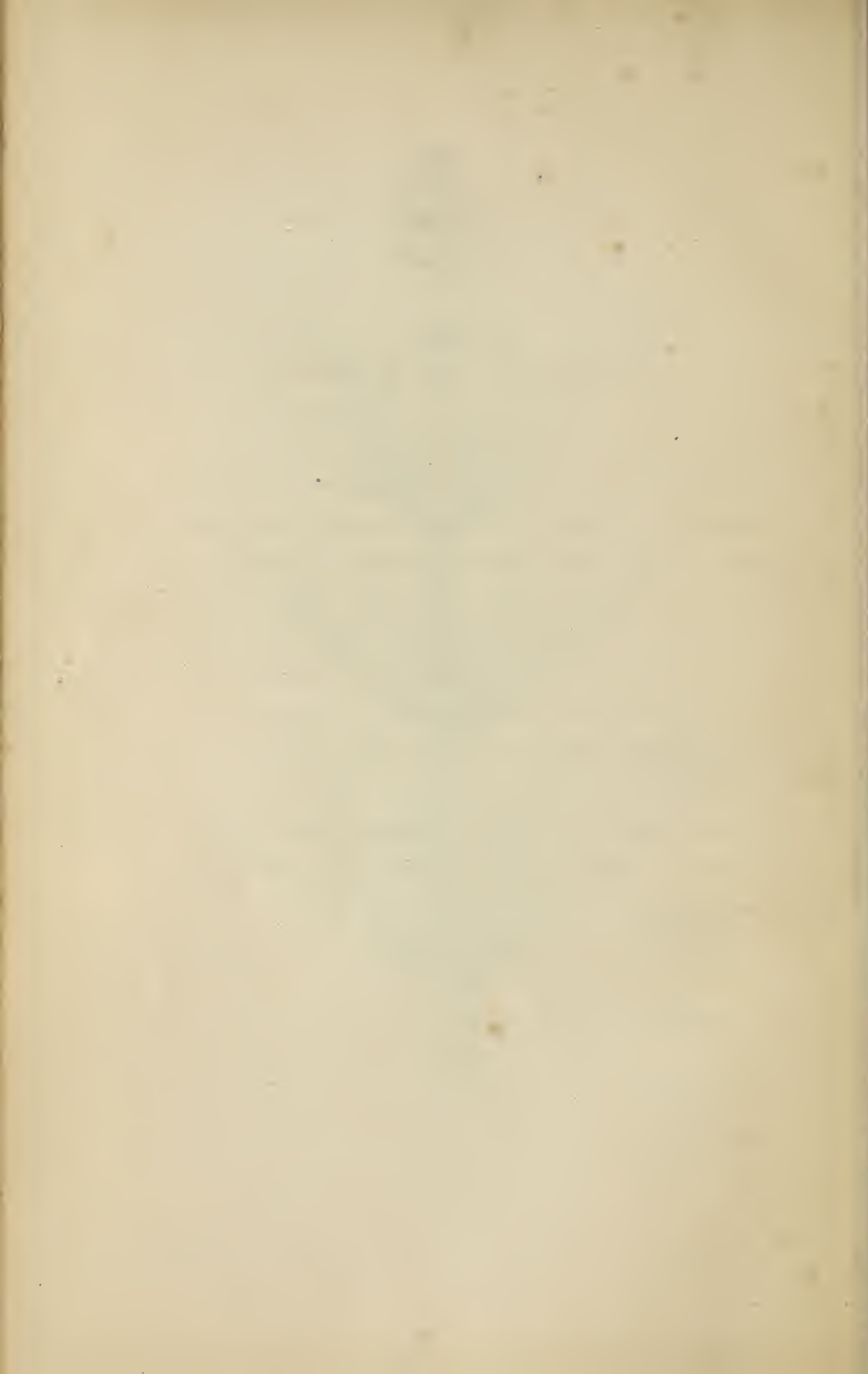
Wet marshy places. Walton.

PLATE XXV.





J. E. Feat



EQUISETUM LIMOSUM, LINNÆUS.

(Smooth Horsetail.)

SYNONYMES.

Present name now generally adopted.

DESCRIPTION.

STEMS mostly fertile but sometimes barren ; either quite naked or with scattered whorls of branches ; frequently the branches do not form whorls, but spring out singly, or in twos or threes from the joints. Sometimes, after the fructification has withered, whorls of branches will then appear, and at this time will often become longer than when they come at the time the stem first springs. Sheaths distant, short with numerous teeth, those of the branches with few teeth.

SPIKE often nearly globular, varying from half an inch to an inch and half long, with fructification as in the preceding species.

This plant spreads very rapidly and grows in large masses, contributing to the solidification of the mud in which it flourishes, and thus materially assisting in the conversion of bogs into dry land, as the dense masses of roots become gradually elevated. As it will only grow *in* the water it gradually recedes as the water diminishes.

It is not of sufficient beauty to make it worth cultivation.

USES.

Same as in other species.

LOCALITIES.

Ditches, ponds, and rivers. Frequent in this district.

PLATE XXVI.

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