atrophied side no trace could be found of the *posterior vesicular column*, usually so well developed in this region.

The belt of degenerated substance is largely developed in this portion of the cord, extending (Figs. 3, 4) quite into the anterior white column.

FIG. 6.

These were the chief morbid appearances noticed, and the case seems very remarkable as presenting evidence of such decided degeneration and morbid change confined to so comparatively small a portion of the cord, completely circumscribed and limited to this portion, the remainder of the cord being perfectly healthy.

Description of the Figures.

FIG. 1.—Section from the cord close to the commencement of the dorsal region.

FIG. 2.—Section from the upper dorsal region.

FIG. 3.—Section from the central dorsal region.

FIG. 4.—Section from the same.

FIG. 5.—Section from the lower dorsal region.

FIG. 6.—Section from adult, healthy cord, near the central dorsal region.

The lettering corresponds in all the figures.

A.—Anterior median fissure.

D.—Posterior median fissure.

C.—Central canal.

B.—Anterior cornu.

P.—Posterior cornu.

P'.—Cervix cornu.

P''.—Caput cornu.

X.—Belt of morbid substance.

The figures are all drawn with the same power, by the camera lucida, the magnifying power being about $8\frac{1}{2}$ diameters.

OUR NATIVE MATERIA MEDICA.

BY FRANCIS MINOT WELD. AN ESSAY TO WHICH ONE OF THE PRIZES OF THE BOYLSTON MEDICAL SOCIETY WAS AWARDED.*

[Communicated for the Boston Medical and Surgical Journal.]

SHORTLY after the close of our last war with England, Dr. Jacob Bigelow issued a series of volumes on the Native Medicinal Plants of the United States: a work written with so great care and tho-

* A prize awarded to under-graduates of Harvard Medical School.

roughness, and illustrated with such accuracy and beauty, as to be still our classic manual in this branch of medical literature. In the preface to this work, the author alludes to the effect of the blockade of our ports by the British, in cutting off supplies of drugs. He therefore strongly urges an examination of all our native plants, so as to render ourselves, as far as possible, independent of foreign productions.

During the last two years, a much more stringent blockade than the one just alluded to has been enforced on the ports of a large section of our country; bringing about such an inconvenient scarcity of certain drugs as to cause more strenuous efforts to be made to secure these precious articles, than to obtain even the most necessary materials of war.

Let us suppose New England, instead of the Southern States, to be at war with the rest of the Union, and hemmed in and blockaded by land and sea. What substitutes could her rocks and sands, chilled by frost and snow, furnish for the rich drugs of the tropics, ripened under an equatorial sun?

Let us examine the condition of our *Materia Medica*: see which of the drugs in common use are of domestic production, and how many others might be introduced into cultivation, or otherwise supplied; learn precisely the number and value of those which cannot possibly be furnished from our own resources; and, lastly, find whether among native products hitherto neglected, we may not discover substitutes, partial or complete, for some of the foreign drugs.

The general plan pursued in the present paper is this. Taking the classification and list of medicinal agents adopted in Stillé's work on *Materia Medica*, the latest available authority, the principal sources of our present supply will be stated in connection with each drug separately. The words native and naturalized are used with reference to the New England States. Where Stillé has omitted to speak of drugs mentioned with approval by other writers of authority, particularly Dr. Bigelow, they will be annexed to the list. Next, taking each class of drugs separately, our resources and more important deficiencies in that class will be very briefly discussed, with whatever remarks the subject may suggest. Finally will come a concise summary of the results arrived at.

The principal authorities consulted are—The United States Dispensatory (1858), Stillé's and Wood's works on *Materia Medica*, Dr. Bigelow's *Medical Botany*, various State Geological Reports.

CLASS I.—LENITIVES.

Mucilaginous.

Acacia,
Althæa,
Cetraria,
Chondrus,
Linum,

Africa.
Naturalized from Europe.
Europe—also native.
" " "
Native.

Salep,
Sassafras medulla,
Sesamum,
Tragacantha,
Ulmus,
Amylum,
Ginseng,

Levant.
Native—good subs. for acacia.
India.
Asia Minor.
Native.
“
“ —much like glycyrrhiza.

Amylaceous.

Avenæ farina,
Hordeum,
Maranta,
Oryza,
Sago,
Tapioca,

Native.
“ [Arum triphyllum.
W. Indies—might be made from
Southern States.
East Indies.
West Indies.

Fatty and Oleaginous.

Adeps,
Amygdala,
Cetaceum,
Glycerina,
Ol. Olivæ, Ol. Amygd., Ol. Cacao,
Sevum,

Native.
Barbary.
Marine.
Home manufacture.
Imported.
Native.

Gelatinous.

Gelatina,
Icthyocolla,
Collodium,

Native.
Imported—also made here.
Cotton from South.

Saccharine.

Glycyrrhiza,
Mel,
Saccharum,

Europe.
Native.
“ from maple.

CLASS II.—ASTRINGENTS.

Mineral.

Alumen,
Bismuthi subnit.,
Plumbum,
Zinci acet.,
“ carb. præcipit.

Imported—can be made here.
Bismuth is found at Monroe, Ct.
{ Lead ores in N. H., and Hamp-
{ den Co., Mass.
{ Germany. A carbonate of iron
{ and zinc exists in New Hamp-
{ shire and at Worcester, Mass.

Vegetable.

Acid tannicum,
“ gallicum,
Catechu,
Galla,
Geranium,

Obtainable from native products.
Tannic acid.
India.
{ Mediterranean—there are na-
{ tive specimens, probably useful.
Native.

Hæmatoxylon,	Central America.
Kino,	Africa.
Krameria,	Peru.
Quercus alba and tinctoria,	Native.
Rosa Gallica,	Cultivated.
Rubus villosus—R. trivialis,	Native.

CLASS III.—IRRITANTS.

Mineral.

Acidum acet., Acetum,	Native.
“ nitricum,	{ From nit. of potash or nit. of soda, both usually imported.
Chlorinium and aq. chlor.,	From native sources.
Calx chlor. and ac. mur.,	{ Require sulphuric acid for their manufacture.
Ac. sulphuricum—its compounds and preparations,	{ Usually made from combustion of sulphur; may be made in abundance from native sulphate of iron.
Liq. ammoniæ,	From native products.
Potassa and preparations,	“ “ “
Sodæ carbonas,	{ Made artificially with aid of sulphuric acid.
“ boras,	Europe, India, &c.
Calx, &c.,	Native.
Argenti nitras,	“ ores.
Cupri sulphas,	“ “
Zinci chloridum,	“ “
Antimonii terchlor.,	Antimony in Maine and N. H.

Vegetable Irritants.

Sinapis,	Cultivated.
Capsicum,	“
Pix abietis,	Native.
Mezereon,	Somewhat cultivated.
Pyrethrum,	Cultivated.
Sabina,	Native. [vated here.
Ol. monard. punct.	Middle States. Could be culti-
Clematis Virginica,	Native.
Arum triphyllum,	“
Ranunculus bulbosus,	“

Animal Irritants.

Cantharis vesicatoria,	Vicinity of Mediterranean.
“ vittata,	Southern States.
“ atrata-marginata,	Native.

CLASS IV.—TONICS.

Specifics.

Ferrum,	Native.
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Cinchona.	South America.
Salix,	Native.
Cornus Florida,	"
Prunus Virginiana,	"

Simple Bitter Tonics.

Colomba,	Africa.
Gentiana,	Europe.
Quassia,	West Indies.
Simaruba,	" "
Sabbattia,	Middle and Southern States.
Centaureum,	Europe.
Chiretta,	India.
Coptis,	Native.
Xanthorrhiza,	Southern and Western States.
Menyanthes trif.—Alettris farinosa,	Native.
Polygama polyg.	

Stimulant Tonics.

Anthemis—Eupatorium,	Cultivated.
Angustura—Cascarilla,	West Indies.
Marrubium,	Naturalized from Europe.
Contrayerva,	Central America.
Calamus—Angelica,	Native.
Aurantii Cortex,	West Indies and Mediterranean.
Wintera,	South America.
Millefolium,	Cultivated by Shakers and others.

Tonic and Aromatic Stimulants.

Anisum, Carum, Foeniculum,	} Are common garden herbs.
Lavandula, Melissa, Mentha	
piperita and viridis, Origa-	
num, Ros marinus, Ruta, Sal-	
via and Thymus,	
Asarum, Gaultheria, Hedeoma,	} Native.
Sambucus,	
Ol. cajuputi,	Moluccas.
Cinnamomum,	Ceylon.
Cassia—Piper,	Java.
Canella—Pimenta,	West Indies.
Caryophyllus—Myristica,	Moluccas.
Cardamomum,	India.
Coriander,	Europe.
Cyminum,	Egypt.
Monarda,	Vide Ol. monardæ.
Zinziber,	W. Indies, Africa, S. America.

CLASS V.—GENERAL STIMULANTS.

Heat and Electricity.

Vinum,	Native—from grape, currant, &c.
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Alcohol,	Native.
Ol. terebinth.—Creasotum,	"
Ammonia carb.,	"
Arnica,	Northern Europe.
Toxicodendron,	Native.

CLASS VI.—CEREBRO-SPINAL STIMULANTS.

Narcotics.

Opium,	Asia—may be produced here.
Lactucarium,	Cultivated.
Hyoscyamus,	Naturalized.
Belladonna,	Native.
Stramonium,	"
Humulus,	Cultivated.
Cannabis Indica,	India.
" sativa,	Native.

Antispasmodics.

Assafoetida,	Persia, &c.
Dracontium—Valeriana,	Native—cultivated. [yard.
Succinum,	Found at Nantucket and M. Vine-
Castoreum,	Russia and Canada.
Moschus,	Russia and China.
Camphora,	China.
Æther sulphuricus,	
Æther chloric fort.,	Native.
Æther nitricus,	"
Chloroform,	"
Cuprum ammoniatum,	"
Zinci oxid. and Valerianas,	"

CLASS VII.—SPINANTS. (Tetanica.)

Spinants in General.

Nux vomica—Strychnia,	Ceylon, &c.
Faba St. Ignatii,	Philippines.
Toxicodendron,	Vide Gen. Stimulants. Native.
Ergota,	" Emmenagogues. "
Sodæ boras,	" Irritants. Europe.

CLASS VIII.—GENERAL SEDATIVES.

Cold.

Acidum hydrocyanicum dil.,	Native.
Potassii cyanidum,	"

CLASS IX.—ARTERIAL SEDATIVES.

Digitalis,	Europe. Cultivated here.
Veratrum viride,	Native.

CLASS X.—NERVOUS SEDATIVES.

Aconitum,	Cultivated here for ornament.
Conium,	Native or naturalized.

Cicuta,	Native.
Cerii oxalas,	Sweden.
Cocculus,	Malabar.
Lobelia,	Native.
Tabacum,	Cultivated in Conn. and Mass.
Veratrum album,	Europe. Little used. [veratria.
“ sabadilla.	Mexico. Used in manufacture of

CLASS XI.—EVACUANTS.

Errhines.

Asarum Europæum,	Europe.
Helenium autumnale,	Native.

Emetics.

Zinci sulphas,	From native zinc. [ties.
Antimonii et potassæ tartras,	Antimony, native in small quanti-
Ipecacuanha,	South America.
Alumen,	Vide Astringents. Native.
Cupri sulph.—Sinapis,	“ Irritants. “
Scilla,	“ Expectorants. Europe.
Tabacum—Lobelia,	“ Nerv. Sedatives. Native.
Gillenia,	Native.
Hydrargyri sulphas flavus,	Vide Alteratives. California.
Phytolacca decandra, Sanguina- ria, Iris versicolor, Apocy- num, Dirca palustris, Erythro- num Americanum,	} Are all native.

Cathartics.

Sulphur lotum,	From volcanic regions.
Magnesia—M. carb. and sulph.,	From native sources.
Sodæ sulphas,	In various manufactures.
Potassæ tartras and bitartras,	France.
Sodæ et potassæ tartras,	From pot. bitart. and sod. carb.
Oleum olivæ—Manna,	Southern Europe.
Cassia fistula—Tamarindus,	India. Cassia also in W. Indies.
Oleum ricini,	{ Cult. in Ohio, and occasionally { in New England.
Senna,	Egypt.
Cassia Marilandica,	Native. About equal to senna.
Rheum,	Turkey, &c. Native quality poor.
Juglans,	Native. Good subs. for rheum.
Colocynthis,	Asia Minor.
Jalapa,	Mexico.
Scammonium,	Syria.
Gambogia,	Ceylon, &c.
Aloes,	Cape of Good Hope, India, &c.
Oleum tigllii,	India.
Helleborus,	Europe.

Podophyllum,
Triosteum,
Oleum terebinthinæ
Elaterium,

Native. Like jalap.
" Not abundant.
Vide Stimulants. Native.
Produced in Eng.; can be here.

Expectorants.

Senega.
Cimicifuga,
Allium,
Ammoniacum,
Myrrha,
Balsam Peruv.—Tolut.,
Benzoinum,
Pix liquida,
Copaiba,
Scilla,
Terebinthinæ—Ammoniac carb.,
Ammoniac murias,
Ipecacuanha,
Sulphur,
Assafoetida,
Asclepias tuberosa,

Native in West. N. Eng. (Gray.)
Native. Of doubtful value.
Cultivated.
Persia.
Africa.
Central and South America.
Sumatra.
Native. [W. Indies.
Vide Diuretics. S. America and
Europe.
Vide Gen. Stim. Native.
" Alteratives. "
" Emetics. South America.
" Cathartics. Italy, &c.
" Antispasmodics. Persia.
{ Native. Highly recommended
} by Drs. Bigelow & Chapman.

Diaphoretics.

Liquor ammoniac acetatis,
Potassæ citras—Citric acid,
Spiritus ætheris nitrosus,
Pulv. ipecac. et opii,
Guaiaicum,
Sassafras—Solidago,
Serpentaria,

Native.
From the Mediterranean, &c.
Native.
Vide Ipecac. and Opium.
West Indies.
Native.

Xanthoxylum Americanum,

Middle and Western States.
{ Native. Much like Mezereum
} and Guaiaicum.

Ammoniac carbonas,
Potassæ nitras,
Antimonii et potassæ tart.,
Sarsaparilla,
Mezereum,

Vide Gen. Stim. Native.
" Diuretics. "
" Emetics. So. America.
" Alteratives. Europe, &c.
" Irritants. Cult. a little.

Diuretics.

Potassæ nitras,
" acetas,
Ammoniac phosphas,
Armoracia—Carota—Uva ursi,
Scoparius—Petroselinum,
Taraxacum—Juniperus,
Propylamin,
Scilla,

Native.
"
"
"
Cultivated.
Naturalized.
Native.
Vicinity of Mediterranean.

Buchu,
Copaiba,
Cubeba,
Colchicum,
Potassæ bitartras,
Sodæ boras,
Spiritus ætheris nitrosi—Li- }
 quor ammoniæ acetatis, }
Dulcamara,
Ol. terebinthinæ,

Emmenagogues.

Ergota,
Rubia tinctorum,
Sabina—Cantharis,
Juniperus,
Sodæ boras,
Ferrum,
Millefolium—Ruta,
Tanacetum,
Guaiacum,
Aloes,
Helleborus niger,

Anthelmintics.

Mucuna,
Stanni pulvis—Tanacetum,
Filix mas,
Chenopodium—Spigelia,
Santonici semen,
Granatum,
Absinthium,
Azedarach,
Bayera (kousso),
Cucurbita pepo,
Kamecla,
Saoria,
Zatze,
Oleum terebinthinæ,

Cape of Good Hope.
West Indies and So. America.
Java, &c. [here.
Europe. Somewhat cultivated
 { Vide Cathartics. Ac. tart. im-
 } ported.
Vide Irritants. Italy, &c.
“ Diaphoretics. Native.
“ Narcotics. Native.
“ Stimulants. “

Native.
Southern Europe.
Vide Irritants. Native.
“ Diuretics. “
“ Irritants. Europe.
“ Specific Tonics. Native.
“ Stimulants. Cultivated.
“ Anthelmintics. Native.
“ Diaphoretics. W. Indies.
“ Cathartics. So. Africa.
“ “ Europe.

East and West Indies.
Native.
“ probably.
Southern States.
Persia. [what cultivated.
So. Europe and Africa. Some-
Naturalized.
Asia. Southern States.
Abyssinia.
Cultivated everywhere.
India.
Abyssinia.
Africa.
Vide Gen. Stimulants. Native.

CLASS XI.—ALTERATIVES.

Hydrargyrum,
Arsenicum,
Iodium,
Oleum Morrhuæ,
Potassæ chloras,
Ammoniæ murias,

California, &c.
Native.
Sea-weeds and Saratoga Springs.
Along the coast of New England.
 { By passing chlorine through a
 } solution of potassæ carbonas.
Native.

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Sarsaparilla,	From Mexico and So. America.
Chlorinium,	Vide Irritants. Native.
Colchicum,	" Diuretics, "
Dulcamara,	" Sedatives. "
Guaiaicum,	" Diaphoretics. W. Indies.
Mezereum,	" Irritants. Cultivated.

[To be continued.]

ON THE HYPODERMIC TREATMENT OF UTERINE PAIN.

BY J. HENRY BENNET, M.D., LATE PHYSICIAN-ACCOCUCHEUR TO THE ROYAL FREE HOSPITAL.

DURING the present winter I have used, with prompt and marked success, the hypodermic injection in several cases of severe dysmenorrhœa, with or without hysterical complications, and in several others of uterine and ovarian neuralgia, and of facial neuralgia having a uterine origin. The relief has been obtained in from fifteen to thirty minutes, without being attended or followed by the headache, loss of appetite, or nausea, which are so frequently the result of the use of opiates in any other way, even by injection into the rectum. This latter mode of administering opiates has hitherto been my sheet-anchor in the treatment of uterine spasms and pain, and is certainly most efficacious; but it is not unfrequently attended by all the above-mentioned drawbacks, from which the hypodermic injection appears to be singularly free. In nearly all the instances in which I have tried this mode of introducing opiates into the system, the sedative result alone has been produced: there has been no subsequent bad effect whatever.

In one case of severe uterine tormina and pain, the result of arrested menstruation from cold, I injected thirty minims of the solution of morphia. In half an hour the pains, which had been agonizing for the previous twenty-four hours, were calmed. A good night's rest followed; and the next morning the menses had resumed their course, and my patient was all but well. In another similar case, the uterine pain was accompanied by severe hysterical symptoms. The injection was followed by the same favorable result—ease, sleep, and rapid disappearance of all morbid symptoms.

Owing to the complete control over the element of pain which the hypodermic injection of opiates appears to give, I have been able to carry on the necessary treatment in an interesting case of uterine disease, which I should otherwise have been obliged to treat under chloroform, or at a great disadvantage. The patient, a young German lady of twenty-four, came to Mentone last autumn, by direction of her medical attendants, with the view of spending the winter in the South. She was considered to be suffering from neuralgia, facial and general, and from nervous irritability of the system in