RESOLVES

OF THE

SIXTEENTH LEGISLATURE

OF THE

STATE OF MAINE,

PASSED AT THE SESSION

Which commenced on the sixth day of January, and ended on the fifth day of April, one thousand eight hundred and thirty-six.

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1836.

STATE OF MAINE.

HOUSE OF REPRESENTATIVES, March 10, 1836.

The Joint Select Committee to whom was referred "so much of the Governor's Message as relates to a Geological Survey," have had that subject under consideration and ask leave to report:

The question may arise in the minds of many not particularly acquainted with the subject, what is meant by "Geology" and a "Geological Survey." By the word Geology, is meant the name of that science which treats of the formation and structure of the globe, or of the crust of the earth. The facts which have been ascertained by those who have turned their attention to this subject, being collected together and put into a connected form, constitute this science.

In detail, it would describe the different kinds of rocks and soils which we find upon, or in the earth—the substances of which they are composed, &c.—the materials or minerals, whether useful or otherwise, which may be embodied in them. It also describes and explains, as far as human observation has discovered, or human reason can infer from the facts obtained, those laws of nature by which these productions have been found—what circumstances vary or modify the actions, and consequently the results of these general laws. In a word, what we mean by Geology, is a knowledge of the different kinds of rocks and mineral substances of which the *earth is composed.*

By a *Geological Survey*, is meant an examination of the rocks, soils and mineral matters in a certain territory, by some one who passes over it and ascertains by mere inspection, or in some instances by blasting or boring, what kinds of rocks, soils, mines or minerals are contained therein. And it may perhaps be the proper place here to remark, that, although it would be immense labor to examine every inch of surface in a given territory, though small, it would also in most instances be somewhat unnecessary to explore the whole, for such is the regularity with which the laws of nature have operated in the distribution of mineral matters, that a safe judgment may be given or inference drawn from knowing the general character of the rocks or formations which extend through such territory. It may be laid down as a general rule, warranted by long and careful research of Geologists, that certain kinds of minerals usually occur in certain kinds of rocks. That certain kinds of rocks are indications of certain kinds of soil. That certain properties in some kinds of rocks, make them unfit for one purpose, and fit for another; and hence the survey of any region or section of country is greatly facilitated, and the labor thereof abridged, inasmuch as it saves a useless search for minerals, which, geological knowledge of this kind will tell you cannot be found there.

The importance of a Geological Survey to the State of Maine will suggest itself on a moment's consideration of the subject. Its object is—*to ascertain the mineral wealth of the country, and consequently its value either as a public or private possession.*

The history of past ages, as well as every day's experience proves, that in proportion as the mines and minerals of a nation are developed and put in requisition, the more abundant are or may be the comforts and luxuries of that nation. Indeed, one of the most distinguishing traits between a civilized and a savage, or a barbarous people is, the greater use which the former make of the metals, or other materials of the rocks or mineral kind which have been brought to light by the researches of the miner or the geologist. And this use of such articles has been the principal means of lifting the one, above the helplessness of the other. None we presume will deny that the wealth of nations does consist, in part, at least of the abundance of what we call comforts and conveniences, and if these comforts and these conveniences are made up in a great degree by the use of the articles spoken of, surely that nation or people, who has the most of them, and by consequence has become the most civilized, is inevitably the most wealthy and powerful. But if these materials remain hidden and untouched —if the hand of science or of enterprising art is not extended to dig them out and manufacture them into useful products, of what use are they to the nation possessing them? An ignorance of their existence is as bad, and the neglect of using them if possessed, is worse, than not possessing them at all; for we hold, that it is thrice more reproachful for a people to slumber over such possessions, and suffer them to lie in the mine and in the quarry unexplored and unsought for, than it is to find upon searching, that they do not exist in their territory. Every State or nation should know, as well as an individual, what she is worth. To do this, she must fully understand her resources, and know what she has, as well as what she has not; and to become informed in these matters, there is no other way under heaven, than to explore her domains and learn the value and the amount of what may be found in the search.

Impressed with this belief, other States have caused their territories to be explored by experienced Geologists and a report made to their several Legislatures, embodying the facts which they have discovered. Massachusetts, South Carolina, North Carolina, and, if we mistake not, New Jersey, have already finished the work. Delaware and Connecticut are now doing it, and the States of New York, Ohio, Indiana and Illinois are about ordering surveys to be made in their respective borders.

Slight examinations of small sections of our State by amateurs, and accidental discoveries by those not particularly engaged in such pursuits, have already elicited the fact that

Maine is not a whit behind her sister States in mineralogical treasures. These casual observations and facts have turned the attention of speculators to these things. Companies, organized for the purpose of profiting thereby, have actually employed Geologists to explore and report to them their discoveries, and the results of their labors amply corroborate the above assertions in regard to the abundance of valuable minerals among us. By this, we do not mean that we can boast of the gold and the silver of Potosi, or the gems of Golconda, but that we have those articles which when considered with reference to the great prosperity and permanent stability which their possession and use insure to a people, are a thousand fold more valuable.

Granite and Marble and Iron have been scattered in our borders with a profuse and liberal hand. Copper and Lead and Zinc—metals administering to innumerable wants, and useful in almost every situation and calling in life, are no doubt to be found in Maine. Soapstone and Sandstone, we are informed, have been also found. Slate is abundant, and we doubt not that Coal will one day be found in quantities sufficient to do away the dependence which we now have upon our neighbors. We have also among us clays of different kinds for pottery, from that suitable for the *brown earthern jug*, to the porcelain vase—ochres for paints, and alum and copperas for the Dyer, exist, beyond a doubt, in our region, but untouched and unused, while thousands and hundreds of thousands of our dollars are poured into the pockets of our more enterprising neighbors for products from those very articles. Indeed we seriously believe that while we pay so much to others, we have the very substances we purchase, either in a crude state, or ready prepared, in plenty among us, resting undisturbed in the very spot where they were deposited by the Creator himself.

In order to prove that what we have thus advanced is not mere conjecture, permit us to enter into some detail of the kind, character and description of those rocks and mineral substances which are known to be found among us.

GRANITE. This rock, so abundantly used as a building material, is found in vast quantities in our State in all its varieties and in all its qualities. The quarries in different parts of the State, of this article, are extensively and profitably wrought, and immense quantities are annually shipped to different States of the Union. This rock is usually composed or made up of three ingredients, viz: *feldspar, mica and quartz*, and accordingly, as these ingredients predominate or occur blended more or less intimately, will the quality vary. When these ingredients are combined together each one somewhat large in size, or, in familiar language, "coarse," the granitic mass will be difficult to work, and consequently not so valuable for architectural purposes, but when the materials are fine or each separate

ingredient occurs in small masses and uniformly and intimately blended together, and contains no foreign matter to discolor or injure it, the material becomes of a good quality and useful in structures of a durable and solid kind.

These three ingredients may be easily distinguished even by those who have not much practical experience in mineralogy.

The feldspar presents, generally, a white appearance, and when put in such a position as to throw the reflection of the light directly to the eye, it gives a sort of *silky* lustre.

The quartz generally presents a more vitreous or glassy appearance, being more dark in color. The mica is oftentimes of a black and glistening color, and made up of small scales or *flakes*.

When this last ingredient, the mica, predominates, the granite becomes more liable to split in certain directions with facility, and has received the name of *gneiss*.

This is the variety, probably, which is most abundant in Maine, and which, under the name of granite, is so much sought for and used as a building material in most of the maritime cities of the several States.

No data are now within our reach by which we can ascertain the amount of Granite shipped from the several quarries now opened. From Hallowell there is not less than 12,000 tons shipped per annum.

From North Yarmouth, 3,000 tons.

The quarry at Bluehill sends out annually, not less than $100,000 worth. These are but three of the many quarries now in operation, and the whole now opened and in use, are but a small part of what may be wrought if necessary.

During the past summer numerous large formations of this substance have been discovered on the seaboard and in the interior, excellent in quality and inexhaustible in quantity.

Gneiss. Although the kind of rock above described may be considered by some as coming strictly under this appellation, yet there is a variety which more particularly comes under it. It is a variety where the *mica* more largely prevails than in the other, and gives it a decidedly slaty structure and renders it liable to split into sheets or tables of less thickness than the other kind, and to have less solidity. Of this kind we have *many* formations, especially on the seaboard, one of which some of your Committee now recollect at Harpswell, and which furnishes good *flag stones* for side walks.

Graphic Granite. There is a variety of granite in which the mica is absent and the *quartz* appears among the feldspar in a somewhat parallel position with considerable regularity, resembling in some degree the rude writing of the ancients, and from this circumstance is called *graphic granite*. Accompanying formations of this kind, the feldspar is also not unfrequently found in large detached masses, and of great purity.

As this last material enters largely into the manufacture of porcelain when decomposed by art or nature, it becomes an object of importance to this business.

In some parts of the State extensive beds or formations of these materials occur, which might undoubtedly be made subservient to this art, either on the spot, or exported to other places for a supply.

From one quarry in Connecticut more than 500 tons of Feldspar are annually exported to England to be manufactured there. To search out the extent, situation, and circumstances attending these formations above named and others of the kind, and also to judge and pronounce of their quality, would be the legitimate object of this survey.

SIENITE. When the *mica* in this kind of rock is absent, and its place supplied by another material, known by the name of *Hornblende*, it is called *Sienite*. This is considered, by many, and perhaps not improperly, to be a variety of Granite, as two of the ingredients, viz. the *feldspar* and *quartz* help make up the mass. This substance does not split so readily as the other variety, or the gneiss, but it is considered more durable and less liable to be changed by the action of the weather upon it. When of a blueish tint it is thought to be more valuable, as being less liable to change by time, than when of a lighter, or of a greenish tinge. Quarries of this material have been discovered, as we have been informed, in Kennebunk Port, or vicinity, and buildings have been erected of it. Large quantities of the green variety, have also been found in the western part of Kennebec County, and there is no doubt that other deposits of it, may yet be found now lying unknown, and of course without a value to the public or its possessors.

MICA SLATE. When the feldspar is absent and the mica prevails almost wholly, held together by a small quantity of quartz or silicious matter, it constitutes what is known by the name of *Mica Slate*. This is a very abundant rock in this State. It has different appearances, sometimes dark, of a compact structure, and sometimes of a light silvery appearance, and has sometimes been mistaken for silver or lead ore, by those who have little acquaintance with mineral matters.

This rock when found of the proper texture, is used for the hearths of furnaces which are exposed to great heat during the smelting of ores. When it contains silicious matter of a kind sufficient to make a suitable grit, it is used for whetstones. In some parts of the United States it is quarried for this purpose in considerable quantities and becomes a source of profitable business. It also oftentimes contains ores of the different metals, and is considered as a metaliferous rock.

We have observed that this rock was abundant in our State, but the true situation or extent of it, or with what it is accompanied, is not yet known.

MARBLE OR LIMESTONE. This species of rock so useful, either in the state of rough or hewn marble for the purpose of a building; or, when polished, for the purposes of ornamental architecture, or when manufactured into quicklime for cements, is abundant in our State.

Thomaston has for a long term of years been an unfailing source of this article in its various forms. Her marbles vie in richness of lustre—in variety of shade, and in beauty and splendor of coloring, with any to be found in the Union; and her lime has long been known as a superior article for the purposes of the various arts in which it is used. The two villages in this town, probably send out not less than 380,000 casks of lime per annum, and more than 30,000 cubic feet of marble are quarried in the same places per annum.

But this is not the only locality or deposit of lime to be found in our State. Other formations of this valuable material abound on our coast; and in the interior it is also found combining qualities of every grade, good, bad, and indifferent. The valuable aid which lime affords to the agriculturist in his pursuits, and the attention which is now beginning to be turned to this all important art, will increase the demand of this article, and render it highly necessary that every bed or deposit of limestone or marble should be sought out and its quality ascertained. Specimens have been seen by some of your Committee, which were brought from the region Mt. Katahdin on the Penobscot river, and from near the Canada Road in Kennebec, which indicate a quality of the first order, and hold out good reasons why an examination of these formations should be made. It is not improbable that the variety of limestone called *water lime*, so useful as making the necessary ingredient of cement, or mortar which will harden under water, may be discovered among us in quantities sufficient to supply all the wants of our own people.

TALCOSE SLATE. This variety of Slate contains an ingredient called *talc*, which is made up in part of magnesia, and which gives it a greasy or soapy feel. It is conveniently used for many purposes in the arts. We have every reason to suppose that it occurs in considerable abundance in many parts of our territory; and it is also not impossible that some of the mineral substances which have been found associated with it in other parts of the world, may also be found in it here.

SOAP STONE. The well known economical uses to which Soap Stone is put, make its value well known to every one.—The property it has of resisting heat, and consequently its application to the purposes of fire places, furnaces, &c. render it an important article. But the ease with which it is wrought into other articles of every day use, such as vessels of culinary purposes, aqueducts, pumps, &c. recommend it to the attention

of all, and render it desirable that we should possess it among us. It is a fact that we do possess it, but in what quantity or of what quality is as yet a matter of as much uncertainty, as of our other mineralogical treasures.

SLATE. This article, so useful for the covering of roofs, tablets for monuments, or as a convenient substitute for paper in schools, stores and shops, occurs in some parts of our State in great abundance and of a good quality. But the actual extent of the formation, the mineral or geological association accompanying it, the best localities of it, are yet unknown. It is a substance interesting not only to the Geologist as a scientific man who is seeking for facts as aids to the illustration of the general laws of nature, but also to the mechanic and the architect. It is not improbable that some of the public lands contain valuable quarries or deposits of this substance, which, if known, would materially enhance their value in the market.

It may not be necessary to enumerate all the valuable rocks which are used in the arts, and of the existence of which in our territory we may have either actual or presumptive proof. Let us turn to the mineral substances which occur more or less abundantly in these rocks, and the possession of which is a desideratum. The most useful article of this kind may be considered,

IRON. This is an article upon which all nations, next to their bread, perhaps, depend for their continuation as civilized communities. There can be no doubt that immense quantities of Iron, of different kinds and qualities, exist in many parts of the State. Discoveries of the variety commonly called "Mountain Ore" have been found in some of the hills of Oxford, and on some of the Islands in the Penobscot; and more than one bog in Maine is found full of ore of a good quality for smelting. The extent and the actual per centage of metal of these different varieties and deposits have not been ascertained.

Perhaps it may not be amiss to call the attention of the public to the fact, that while we are, as a people, paying a yearly tribute to the enterprising manufacturers of Vermont, New Hampshire and Massachusetts, to say nothing of Pennsylvania and New York, for articles of cast iron; there is not, to the knowledge of your Committee, a single smelting furnace in our State. It is melancholy to think, that with ore and fuel and water power to an extent beyond what any other State can boast, we quietly and tamely extend our hands to our sister States for the common utensils of our kitchens. The extent of the deposits of ore already known should be ascertained, the amount per cent. which they will yield to the manufacturer should be sought out—new localities should be discovered and made known.—The fact that malleable iron is now made in some places directly from the ore, renders it still more desirable that our territory should be explored for this valuable material.

Ochres. These substances are well known from their use as pigments or paints for houses, outbuildings, and the various implements and utensils in common use. There can be no doubt that beds of these substances will be found in various parts of the State, of a quality, both as it regards material and color which will render them valuable and be an acquisition to our other stores of mineral productions.

Sulphuret of Iron or Pyrites. Iron, in combination with sulphur, is no doubt abundant among us, no doubt sufficiently so for the production of *sulphate of iron* or copperas in vast quantities. The experiment has been tried with success in Winthrop and in some other places in the State. This was commenced during the last war with England and conducted far enough to prove the practicability of the thing. The return of peace diverted the attention and capital of the individuals who began the manufacture, to other pursuits of a more lucrative kind.

Copper. Small specimens of the ore of this metal have been picked up in different parts of the State, which are all that can be depended upon, as far as your Committee know, as proof that it occurs in our territory, although nothing as yet discovered, goes to prove that it does not exist with us at all, in quantities sufficient to make it an article of manufacture.

Zinc. Ores of this metal have been found in detached masses, varying more or less in its quality. Nothing definite however is known respecting any certain locality, unless what is known of it as associated with the next named metal at Lubec. This is a valuable metal, and the increased use of it for several purposes, such as various vessels for household use, for the covering of houses, and as an alloy with copper to make brass, render it highly desirable that it should be found, if it does exist among us, and brought into general use.

Lead. This metal has been found at Lubec of a good quality, and every indication attending it is thought to be favorable. It is to be hoped that future research will corroborate the opinion formed.

In some other parts of the State, small quantities have been found, but nothing definite as yet is known of the extent of the veins, or what the accompanying indications are.

Gold and Silver. We are not aware that Gold has as yet been found in Maine as one of its native minerals, and in an economical point of view, it is not of much consequence that it should. But if the position assumed above be correct, viz. that Talcose Slate, the rock in which it occurs in other parts of the globe, be also found in Maine, it may not be impossible, though not certain, that this metal should be found in it.

Silver has been found combined with some lead ores, in quantities sufficient to render it an object to separate them.

This is thought to be the case with the lead ore at Lubec.

It may not be improper for your Committee here to remark, that according to the observations of Geologists who have long and carefully studied the rock formations in different parts of the globe, and closely compared the results of their researches, something like a natural classification of rocks has been formed. The first class they have agreed to call PRIMARY. It is so called because it is believed to comprise those rocks or formations, that appear to have been formed first, or that are in fact older than the rest.

A person unacquainted with the subject of Geology, may perhaps smile at the idea of pronouncing with seriousness, upon the relative ages of the rocks or mineral masses which he may find around him.

But a little examination will soon convince him that there are circumstances attending the position and structure of these rugged mountain ledges, which tell him, in language which he cannot misunderstand, which were formed first or which have been in existence the longest. He would find that what are called primary rocks, as granite for instance, are more or less crystalline in their structure, and contain no vestige or remains of any thing that ever had life, either of vegetable or animal origin. On the other hand we find masses of rocks many miles in extent, and even forming mountains of great height which contain in great abundance, the impressions of vegetables, or the bones and the shells of animals and the forms of fishes.

Now these rocks must have been formed after the plants and the animals were, whose remains are now imbedded in, and serve to make up the mass itself. To this class the name of SECONDARY has been very appropriately applied. These two kinds of rocks form the most prominent among the established classes.

Further research has also led to the discovery that certain kinds and classes have their peculiar mineral substances, or that these substances are to be looked for, in such and such classes of rocks rather than in those of another class, and that it as useless to look for some minerals in a primitive range, as it would be to look for statuary marble in a hay stack.

Hence an experienced Geologist who is acquainted with the associations of certain minerals, could at once tell the probability or the improbability of finding those minerals in any particular kinds or classes of rocks which may present themselves for examination. And, although every rock may not contain the mineral with which its class associates, yet the fact that such substance usually occurs in rocks of this kind when found at all, will guide him in his judgment whether it would be rational to expend money or labor in the search or not. From what little examination has been made of Maine, and that examination except in very limited sections, has been exceedingly slight and desultory, it has been supposed that our rock form-

ations were purely and entirely primitive, and that as a matter of course, the mineral productions which are to be looked for in a secondary region must not be expected among us. But, while we concede the fact, that Maine is, as far as the slight examination which has been made will warrant the decision, really primitive; yet there are good reasons to suppose that she is not so throughout.

Detached bowlders or masses of rock containing the remains of shells have been found in various places upon the Kennebec, also between the Kennebec and Androscoggin, as well as between the Kennebec and Penobscot rivers, and, although these have not been found *in situ*, as it is called, or in the very bed in which they were first formed, and from which they have been rent by the sweep of some tremendous deluge, or other power; yet there can be little doubt that somewhere in the upper sections of the State, or farther beyond, there is a region of more or less extent, which is of a secondary character. If this should be proved by future search to be correct, we might reasonably expect to find those minerals which, in other parts of the world are associated with, or are contained in secondary formations of the kind in question, and that a greater variety of mineral substances would, of course, be contained in our territory.

From what has been advanced, your Committee think they have reason to believe that the existence of large bodies of the most valuable mineral substances in our State, has been proved. Indeed, we have most of the kind in general use, except *coal*, and in regard to this they beg leave to state that almost every indication which has led to the discovery of coal in other regions of the world, are found in many parts of our territory.* What then is wanting to bring Maine forward and place her on a level with others of the Union in this respect, but a search for the treasures which are strewed upon her surface and placed in her soil? Her quarries of Granite, and Sienite, and Marble, and Limestone, now in successful operation in many parts of her territory, have already brought her into successful competition with others, and her deposits of Iron, when they shall be sufficiently known and extensively wrought, will place her by the side of those who are now profiting by the manufacture and sale of similar products.

* Since this subject has been under the consideration of the Committee, we have been shewn specimens of Anthracite, said to be found in Palmyra, in Somerset County. The specimens are genuine Anthracite, and the indications are said to be in favor of there being an abundant deposit in that region.

A fact has also been communicated by one of the Committee in regard to the coal indications on the eastern border of the State, viz. that the new Red Sandstone, so called, is found in that region, particularly in the town of Perry and vicinity.

This rock, according to the observations of Dr. Jackson, is the roof of the coal formations in the British Provinces.

Her beds of Felpspar, and Clay, and Silicious Sand, may hereafter produce as beautiful and as costly articles as the porcelains of England, of France, or even China herself.

Be that as it may, we believe it may be laid down as an indisputable fact, that the country that has a plenty of Granite, of Lime, of Iron and Coal is preeminently rich. As we have before stated, all except the last are found among us, but how much of the latter, or how much more of the former may hereafter be found remains for time to show. Nor do we believe that we are destitute of many minerals which are not immediately useful in the common arts of life, but nevertheless have a certain value of no mean amount in the eyes of the world. Several of the precious gems are occasionally found in many parts. The Amethyst, the Tourmaline and the Rubellite are found in more than one of our hills. Indeed in almost every county we may say, are found deposits of mineral matters useful either in the arts or as ornaments, or deeply interesting to the Geologist as illustrating and demonstrating the laws of mineral structure or geological formations.

In addition to the reasons above enumerated for prosecuting a Geological Survey of our State, there are those of a *negative* kind which urge it. It will have a tendency to check the foolish expenditure of money, in digging and mining for metals and minerals in places and situations where it is utterly impossible that such substances could be found. Many thousand dollars are annually spent in such fruitless and chimerical pursuits. It is presumed that not a season passes without some person, ignorant of the principles of Geology, is led astray by the delusive glitter of *Sulphuret of Iron*, or some other substance equally deceptive in its *shining* character, and forthwith becomes filled with golden dreams of treasures and inexhaustible riches. The artful and designing are ever ready to take advantage of ignorance and of the weakness of human nature, and to turn to their own account any enthusiasm or excitement which they may get up. The past season exhibited numerous instances of impositions of this kind. Iron pyrites has been sold at a high price as *Gold Ore*. *Mica Slate* for *genuine Silver Ore*. Traprock for *Irish Marble; mud* for *Porcelain Clay*, and tourmaline for the best of *Mineral Coal*. By effecting a thorough survey of our Geological formations, and by spreading abroad definite information upon these subjects, we hope and trust that an effectual stop would be put to the gross and oftentimes cruel impositions which have so frequently been practised upon the honest but uninformed.

Besides the immense importance of ascertaining the extent of our mineral riches as sources of wealth and national strength, and also as a means of diffusing correct information, by which the gross frauds so often practised might be com-

pletely checked—there are other considerations of no mean character, which should urge upon us the necessity of a Geological survey.

It is the aid which would be derived to the science of Geology itself, from the immense number of facts which must be elicited. We should thus, as a State, as a member of a great and enlightened community, be found contributing our mite to the advancement of a science as useful as it is interesting, and of repaying in some small degree the benefits which we have received from the labors and researches of those who have so successfully and honorably toiled in a similar field. Such a transaction would elevate us to a high and noble eminence in the eyes of the enlightened and scientific portion of mankind. It would give us character—it would give us importance—we should become known and appreciated among those who have cultivated the liberal arts and sciences.—We should be looked upon by our sister States and by the world, as having wealth of an available and durable nature, and that we ourselves know and duly prize our abilities and our resources.

PLAN OF OPERATIONS.

In prosecuting this survey, your Committee are aware of the difficulty which must arise on account of our great extent of territory, and from the circumstances that a part of it is still covered with a dense forest. It must therefore be seen, that from this amount of surface to be traversed it will take a corresponding length of time to accomplish the undertaking. Hence economy makes it necessary that some definite system of operations be adopted, and your Committee would respectfully recommend the following—viz: That the Board of Internal Improvements take charge of the business and appoint some person for principal surveyor, and such assistants as may be necessary—that the surveyor and his assistants shall, if in their opinion it will be best so to do, divide the State into such sections as they may deem most expedient, in order to facilitate the business—that a report shall be made annually to the Board of Improvements of their doings. It may not be improper for your Committee to suggest, what may perhaps be considered sufficiently evident to every one, that the survey should commence upon the coast, as there the rock formations begin, or rather, "crop out," and may thence be more readily traced to the interior or across the State.

It may be also well to remark, that although the survey is to be strictly geological, yet it is not improbable that the surveyor

will occasionally gather important information upon other subjects, which shall tend to elucidate the natural history of the State and add to the value of his researches.

E. HOLMES, *Per Order.*

Chapter 66.

Resolves authorizing the Board of Internal Improvements to commence a Geological Survey of the State.

Approved March 28, 1836.

RESOLVED, That (in the language of our chief magistrate) a Geological Survey of this State, upon a basis commensurate with the magnitude and variety of its territory, is an enterprise that may rightfully claim the encouragement of every class of Industry, as involving more or less of probable utility to each and is intimately connected with the advancement of the arts and sciences, of agriculture, manufactures and commerce.

RESOLVED, That the Board of Internal Improvements cause a Geological Survey of this State to be made as soon as circumstances will admit, commencing in the early part of the next summer, and they are hereby empowered to appoint and contract with some suitable person or persons to perform the same.

RESOLVED, That it is with pleasure we learn the intention of Massachusetts to join us in prosecuting so much of said Survey as shall pertain to the Public Lands—that we cordially embrace the opportunity of co-operating with her in this design; and that the Board of Internal Improvements are hereby directed to take such measures as may be necessary to effect this portion of the contemplated Survey.

RESOLVED, That it shall be the duty of the Board of Internal Improvements to lay before the Legislature, at its annual sessions a detailed account of the progress of the Survey, together with the expenditures in prosecuting the same.

RESOLVED, That the person who shall be employed to make the Geological Survey, shall be required to select three complete suits of specimens of all the rocks and minerals of Maine and deposite one of them in the Public Buildings as the property of the State and also one in each College in the State.

RESOLVED, That the sum of Five Thousand Dollars be appropriated from the Treasury, subject to the discretion of the Board of Internal Improvements, and to be expended by them in carrying on said Geological Survey.

Chapter 67.

Resolve in favor of William D. Williamson, Nathaniel Clark and Joseph R. Abbot, Commissioners of State Prison.

Approved March 28, 1836.

RESOLVED, That there be allowed and paid out of the State Treasury the following sums, to wit, to William D. Williamson the sum of Thirty Nine Dollars and Ninety Six cents—to Nathaniel Clark the sum of Twenty Five Dollars and Sixty Eight cents—to Joseph R. Abbot the sum of Thirty One Dollars and Forty Five cents, being a balance due them respectively for services as Commissioners of State Prison over and above the appropriation for that object contained in a Resolve of March 23, 1835.

Chapter 68.

Resolve in favor of Argyle Plantation.

Approved March 28, 1836.

RESOLVED, That the Governor with the advice of Council be and hereby is authorized to appoint an Agent to superintend the making of a road through the Waterville College Township in the Plantation of Argyle in the County of Penobscot as is now laid out by the Court of Sessions or County Commissioners for said County unless said Agent shall find some alterations therein necessary for the public accommodation in which case he is hereby authorized to vary the same. *Provided* That, the inhabitants of said Plantation of Argyle shall at their annual meeting in the month of March or April next for the choice of Plantation Officers raise a sum not less than One Thousand Dollars to be expended in labor and materials on said Road under the direction and superintendence of said