U. S. GEOLOGICAL SURVEY

TRAVERSE BOOK

9-904

Savin Hill

Thompsons Island

Dorchester Bay

Commercial Point

Harrison Square

Squantum

QUINCY BAY

North Quincy

Atlantic

Station

Wollaston Heights

East Milton

Quincy Center

Milton Creek

Rainsford Id.

Quarantine Rock's

Windmill Pt

Hull

Sunken Ledge

Peddock's Id.

Hangman's Id.

Harry's Rock's

Prince's Head

Bumpkin Isl.

Sheep Id.

Nut Id.

Moon Id.

Grape Id.

Slate Id.

Hough's Neck

Raccoon Id.

Rock Id. Cove

Weymouth Fore River

Weymouth Back River

Great Hill

Weymouth Harbor

Squirrel Hill

Ferry Pt.

Hunts Hill Point

Old Spain

North Weymouth

Quincy Neck

Old Boat Pt.

Pine Pt.

Mill Cove

White's Neck

Beals Cove

Fort Hill

West Hingham

Wymans Hill

King Oak Hill

Braintree

Weymouth Landing

Weymouth

L M N O P

Beacon

Pt. Allerton

Little Hog Id.

Nantasket

Strawberry Hill

Beach

Bumkin Id.

World's End

Little

Black

owner

nding

Crow Pt.

Chandler's Id.

Sailor's Id.

Ragged Id.

HINGHAM HARBOR

N G H A M

Nantasket

COHAS

Hingham Harbor

Old Colony House Station

SOUTH SHORE BRANCH OF TH

Weir River

Turkey Hill

Situate Hill 177ft

Hingham Cen.

Lower Plain

Triphammer Pond

H A

O

Black Rock

Rock

Minot's Ledge Lt.

N 70 E = 60 E
45 N.

Ber W. Willett,
Bradford,
A little Boy born between Prospect
Hendon

6 4 1 Farthest northern exposure is a dyke of diabase I think running N 85 W. and cutting across the slates whose strike is N 70-75 E, dips nearly vertical or faintly towards N. Per real strike can be detected by the fine banding caused by changes of color or by fine more sandy layers. East of this dyke and just south of this same I think stratigraphically are 4 bands of quartz following the true strike of the slate. This would seem as though they may not be metamorphosed sandy sediments as but they seem to pinch down the slaty layers a little in front which they have come up, and although they have a dip decided by cleavage I concluded they were veins. The cleavage has a direction here in the slate of N 75 W dip vertical, and stops abruptly at the "sandstone"; In the sandstone are veins running N 60 W. In one or two layers of shale intercalated the cleavage is the same as the general cleavage with note. This leads me to believe that the cleavage of the shales was induced after the intrusion of the quartz veins. and perhaps at the same time or after the dyke intrusion. At the north side of the road the strike is E+W. Road the dip is 75 N. The cleavage is N 65 W and its dip vertical. On the south side of the road is a dyke like a or a sandstone, probably the first since it resembles of which looks more like a dyke than a sandstone. At the southern end of the exposure is what I think is another dike. It looks like a sandstone but breaks across the slates irregularly like a dyke. This would make at least 8 dykes in this locality, all of the same trend. The strike and cleavage here seem to agree N 65 W. dip 80-70 N. The distance across the strike from the most southern to the most northern exposure is 1/2 chain = 225 feet. The slate of the entire series is finely banded, greenish, or dark bluish green, sometimes very slightly purple not resembling the red rocks here or at all.

Of 4 1 The ridge Of. 4. 1 — Of. 4. 2. runs N 65 W. This would make the ridge parallel to the south of Raccoon Island. It is composed entirely of dyke rocks. There are several low lying ridges

which is finely banded, greenish, or dark bluish green, sometimes very slightly purple not resembling the red series however at all.

Of 4 1 The ridge Of.4.1 – Of.4.2. runs N 65 W. This would make the ridge pass to the south of Racoon island. It is composed entirely of dyke rocks. There were several flows here. Along the western margin at Of.4.1. and thence along the northern edge occurs a greenish, more dense and homogeneous rock, which near Of.4.1 shows porphyritic feldspar crystals and nearer Of.4.2. looks like an indurated slate, but I satisfied myself at least that it was not a slate but only the same porphyritic rock with no porphyritic crystals. Along

Of.4.2. the centre and southern side of this border is a more purplish rock, amygdaloidal often densely filled with small dark specks which I suppose are chloritic amygdules, often filled with larger, often 1/4 inch in diameter, amygdules, which consist chiefly of quartz or first chlorite with an exterior of quartz, or limonite, or chlorite or serpentine; the last two in smaller amygdules. No sedimentary rocks, either slate or conglomerate were seen here by me. At the eastern end of this part of the rock, Rock Island Head I saw no conglomerates or slates although I notice [illegible] for some reason or other marks in conglomerates. I was then moreover at low tide.

Of 4 3 Coarse reddish conglomerate runs as a ridge to
Of 4 4 which ridge has no slate or sandstone to any great amount. Almost entirely conglomerate of variable coarseness N 65 W to N 75 W. The cleavage seams dip southward, I am not so sure that the strike is southward although I presume it is about 70 S. The rocks at least dip at a high angle since the stratification of them could not keep persistently in the conglomerate, which I think would not be the case in more horizontal strata. Along the southern side, a little east of the middle of this ridge is the greenish diabase which penetrates the conglomerates in tongues. This ridge lies south of the diabase ridge 1–2, at least 50 feet.

Of. 4. 5 This is intended to locate another ridge, passing south of the last, and is composed of the greenish or reddish green diabase only. At least I found no conglomerate during my short search here. All these three ridges are separated from each other by low nearly depressions having a direction of N 30 W.

Of 4 6. is not separated with the same distinctness from Of.4.5 indeed I doubt whether any fault remains here to be brought out. If there be any its direction is N 70 W. which is also the direction of the ridge Of 4.5. because a faint depression lies in line with the southern edge of the diabase ridge, towards the south of which the conglomerate exposures of Of 4.4 are found. No diabase was noted here.

Lg 4 1 Just at the landing northeast of the house. blackish grey slate, same as at G.4.1 and Wollaston Heights. Strike N 80 W. dip 70 N. to 85 N. The slate is banded towards the north. more massive farther inland. Then banded again. Just east of to some 20 feet is some of the rock I called massive slate which looks like argillite. On both sides of this ~~these~~ stratified slates are much contorted and there are included contorted slates. It would be called a dyke here I think did it not look and break like argillite. What is the meaning of the included contorted pieces.

Lg 4. 2. Strike of banded slate along shore. fine exposure N 85 W. Dip 80 N. Massive argillite farther inland.

Lg 4 3 Strike of banded rock fine long exposure. N 80 W. dip 70 N. — 80 N.

Lg 4 4 The slate extends out into the sea in ledges under the water for 100 feet at least. keeping up its strike. This is the place to go to see contorted strata still preserving their general strike with great accuracy. Dip northward 80°–75°. N 80 W. The contortion of the included banded slates in the more massive argillite in my estimation means nothing.

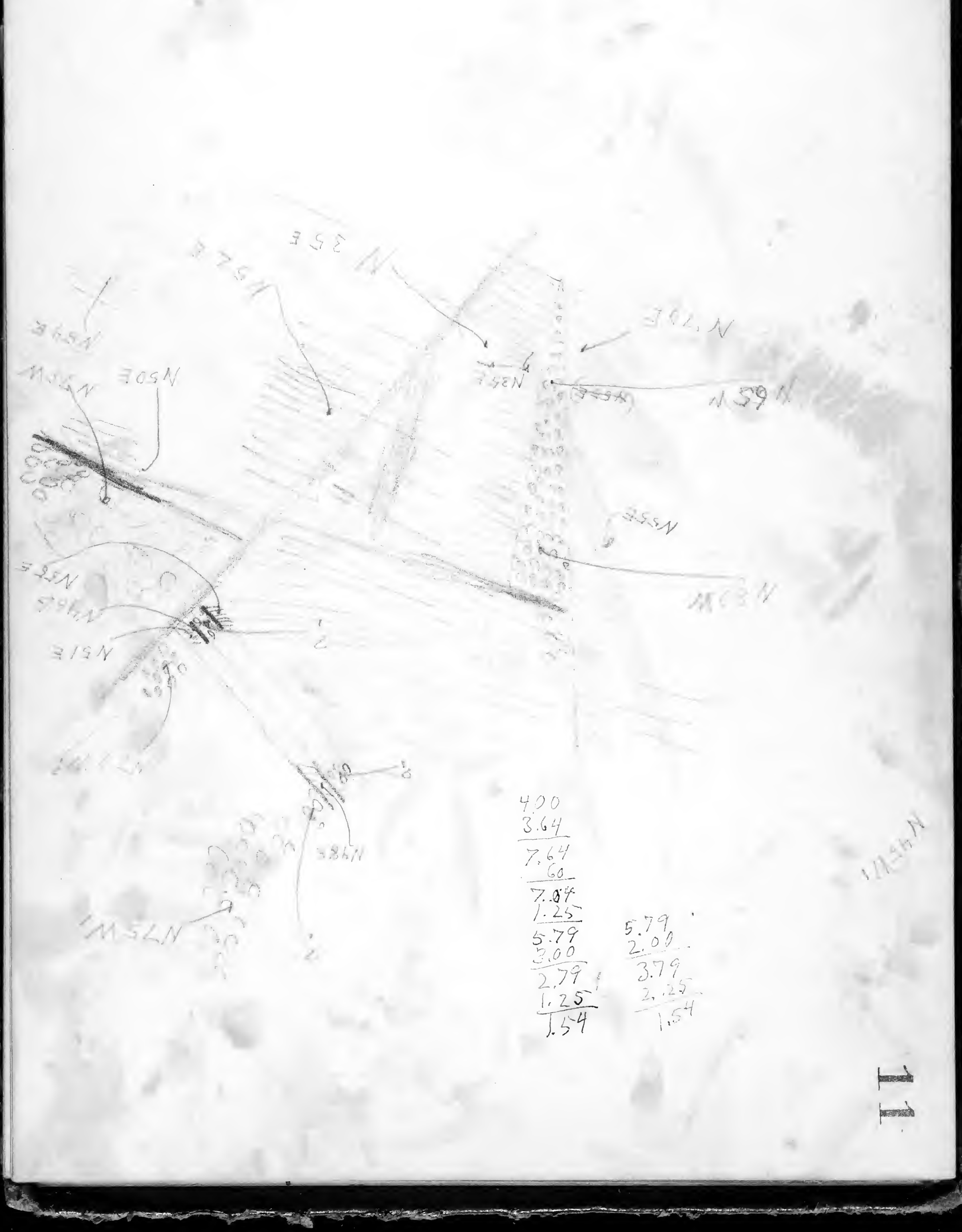
Lg 4 5 There seems to be a dike here along the strike of the slate similar to the dikes at G.4.1.

Lg 4 6 Strike N. 88 W.

Lg. 4 7 Strike N. 85 W. Dip 80 N. Dike here. The same

N 85 W. ... the ... slates in the more inclusive regularity in my estimation means nothing.

Gy 4 5 There seems to be a dike here along the strike of the slate similar to the dikes at G 4.1.
Gy 4 6 Strike N. 88 W.
Gy 4 7 Strike N. 85 W. Dip 80 N. Dike here. Presume banded slaty rock.
Gy 4 8 Dikes south of the house.
Gy 4 9 Dark greenish slate N 80 W = cleavage? dip 70 N. Whether cleavage or strike I could not tell. Presumably the same as the banded slates nearby.
K 5 4 Granite.
K 5 1 Amygdaloid diabase runs among conglomerate N 63 W 45° N. as near as the strike & dip of red conglomerate can be guessed.
K 5 2. Ledge of diabase in south bold, E + W about. conglomerate band in the middle N 73 W. 45° N. diabase north of the conglomerate
Y 5 1 A decidedly purplish slate. N 50 E. where finely banded. 80°–70° W. The rest of the ... the greater part, homogeneous.
Y 5 2 Red conglomerate same as K. 5.1 and 2. A large amount of igneous rocks here included as pebbles or boulders often of large size. The diabase still penetrates the same in ... and dykes although not as frequent or as largely as at the more eastern localities. There is a depression between the last conglomerates and these slates and the strike seems to be different but it must be remembered that the strike of the coarse conglomerate can be only indifferently determined.
Y 5 3 Slate Cambrian N 50 E Dip 70 E
Gy 5 1 Cambrian Slate N 15 W. Dip 85 S.
G 6 1 Slate fine E + W. 85 N. Greenish purplish.
G 6 2 Slate fine N 75 E 85 N. + vertical S? also purplish
G 6 5 E + W. Dip 80 N. Purplish
G 5 1 ... Cambrian ... N 55 W. (70 S?)
Y 5 4 Conglomerate, whitish. Not much amygdaloid on another road farther north. ...



400
3.64
7.64
60
7.04
1.25
5.79
3.00
2.79
1.25
1.54

5.79
2.00
3.79
2.25
1.54

J. 3. 1 Banded grey slates [illegible] of [illegible]
N 84 E dip 80 S. [illegible]
N & W. dip [illegible]. About 115 steps across the
[illegible]

J 3 2 [illegible] dark purple or grey color [illegible]
[illegible]
N 84 E dip 80 S. [illegible]
[illegible]

K 3 1 The [illegible] banded slate of J. 3 2. N 82 E,
dip [illegible]
[illegible]
[illegible] N 78 E
dip 80 S. [illegible]
[illegible]

K 3 2 [illegible] 85 S.
K 3 3 [illegible]
K 3 [illegible]

Numerous dykes of whitish color, [illegible] both with the strike and cutting across the same occur in this island. Slate Island.

K 4 1 A ledge above water at low tide only. The Cambrian red conglomerate and sandstone chiefly sandstone. The purple color sometimes almost absent, at other times present. Strike E + W. dips southward I think.

L 4 1 The red Cambrian conglomerate has with [illegible] the red color. Strike E + W. dip 45 S. At this particular locality bands of sandstone intervene in the conglomerate especially towards the bottom. An E + W diabase dyke cuts across the strike dipping 45° to the North.

L 4 2 Red Cambrian conglomerate with sandstone intercalated. Strike E + W. dip 45 S. sandstone
[illegible]

L 4 2 Red Cambrian conglomerate with sandstone interbedded. Strike E + W. dip 45 S. sandstone layer sometime 3 ft thick. Conglomerate on this end not quite so coarse as at Chandlers Island. The conglomerates contain granite, felsite and metaslate pebbles. also banded slate pebbles. Just north of the point between the island a large boulder, 2 ft long and 1 ft broad is imbedded in the Cambrian sandstone. This pebble is composed of greenish banded slate, similar to those of Chandlers Island and elsewhere. Raccoon Island for instance. A homogeneous purplish rock which might represent the purple Cambrian is also included. Massive greenish sandstone 15 feet thick form a layer along the N.W. end of this island. On looking about I found several additional pebbles of the banded slate further east.

L 4 4 Granite in abundance in place.

L 4 3 Red Cambrian conglomerate N 81 W. dip 45 S. Sandstone, usually greenish in color these conglomerates, interbedded. Purplish sandstone ones interbedded at L.4.1. A fine purple sandstone occurs at L.43. sometime interbedded for short distance with the coarser green variety. These purplish bands are especially common along the northern side of the Island, but are always thin. The massive green sandstone is very common here especially and very thick bands on the north side of the island.

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O 3 1 At the most northern point is [illegible] congomerate then red slate 3 feet. N 80 E, dips south. then coarse conglomerate, towards the north the conglomerate pebbles are held by a slaty cement, and next coarse real slate comes in with strike N 65 E dips 25 South. slate is banded. South and west of this the rock is all melaphyre itself split by large [illegible] dykes.
N 4 2 Conglomerate rather coarse. with a depression in a valley between the conglomerate region and the [illegible] hill on the east.
N 4 3 Coarse conglomerate with melaphyre pebbles and felsite etc.
N 4 4 Coarse conglomerate, reddish in general with felsite. melaphyre, etc.
N 4 5 Much granite.
N 4 6 Granite.
N 4 7. Granite on the west and coarse conglomerate on the east. There is a contact here, but with the short time spent here I thought the evidence was considerably in favor of the conglomerate containing pebbles from the granite, but sections are needed to establish this,
N 4 8 Coarse conglomerate.
N 4 9 Coarse conglomerate.
N 4 10 Coarse conglomerate
N 4 11 Coarse conglomerate
N 4 12 Coarse conglomerate with coarse granite and melaphyre pebbles and a melaphyre as a dyke or [illegible] on the south side.
N 3 1 This whole knob is melaphyre - amygdaloid.
N 4 1 On this promontory is coarse conglomerate, one coarse granite boulder is 3 ft [illegible] in diameter. The melaphyres and felsites are [illegible] well represented. A melaphyre dyke is on the south west end. The first satisfactory signs of stratification are found here. The strike is 54 W and the dip 15 S. Even this exposure is [illegible] by large enough to determine the dip for the whole region. At the very southern edge of the promontory is another melaphyre dyke.

N 4 22 Granite, coarse. in abundance.
N 4 23 Greenish melaphyre.

RC 4 22 Granite, coarse. Hornblende.
RC 4 23 Granite and aplyte.
RC 4 13 The coarse conglomerate included in the granite, several boulders and a long narrow strip of the same conglomerate.
RC 4 11 Granite coarse.
RC 4 1 Coarse Granite
RC 4 2 Coarse Granite
RC 4 3 Coarse Granite.
RC 4 15 On the west coarse conglomerate. Shaly and already layers of very limited extent, strike N-S E. dip 15 S. On the east is the coarse gneissoid granodiorite.
O 3 2 Amygdaloid.
O 3 3 Conglomerate - Strike & included a matter of small length. N 65 E dip 15 S. This is the coarse conglomerate with granite, amygdaloid and felsite pebbles. Granite pebbles are numerous all over the area here.
P 3 7 Numerous small layers of intercalated structure. Strike N 80 E dip 35 S.
P 4. Gneissoid looking granite.
P 3 1 Only loose boulders.
P 4 4 Gneissoid granite
P 4 3 Gneissoid granite
R 4 1 Gneissoid granite. This granite is different from the Gneissoid variety and although the gneissoid structure is not always marked, variations to distinct types of the same locality is common.
R 4 2 Gneissoid granite
R 4 3 Gneissoid granite
R 4 7 Gneissoid granite
R 4 5 Gneissoid granite.
O 4 5 Gneissoid granite
R 4 4 Gneissoid granite.
O 4 6 Gneissoid granite.
O 4 7 Granite
O 4 8 Granite
RC 4 16 Granite
RC 4 17 Granite
RC 4 18 Granite.

O 4 9 Granite
O 4 10 Amygdaloid.
O 4 11 Coarse conglomerate.
R 4 2 Nearest the water. diorite. [illegible] strike N60E dip NW but strata + flexes. [illegible] Much amygdaloid at south.
R 4 3 Slates N70W. same as R.4.2. Dark, slightly purplish but apparently nearer the slates of Slate Island &c. Dip in general north. In places much contorted 32 steps across the strike. Hence for 200 steps south slate dip S. then comes diorite. Then for 100 steps south abrupt comes slate dip south & contorted [illegible] of amyg [illegible] south. [illegible] brecciated amygdaloid or conglomerate at two small places.
R 4 4 Slate. N60E. dip north. soon after apparently the strike becomes somewhat near N+S.
R 4 5. Slate. Banded. The same since R.4.2. Strike changeable, much contortion. In general E+W. but also much nearer N+S. strikes.
R 4 6 Slate with conglomerate composed of slate pebbles forming layers (1 ft thick [illegible])
R 4 7 Abundant conglomerate passing into slate on the east. No amygdaloid pebbles in it, [illegible] throughout of the same. N40E dip 45 N.
R 4 8 Dark slate with purplish tinge. as at R.4.3 near shore. Much of the slate since then has been specimened.

L 4 1 Conglomerate, [illegible], down to the creek, numerous exposures, [illegible] pebbles [illegible]

L 4 1 Conglomerate, red, [illegible] [illegible] the [illegible] [illegible] and [illegible] pebbles [illegible] [illegible] [illegible] [illegible] a metamorphosed form of the common conglomerate of [illegible] [illegible] [illegible] [illegible] at local [illegible] [illegible] being a large pebbled form.

R 5 9 Amygdaloid [illegible] [illegible] [illegible] [illegible] in [illegible].
R 5 10 [illegible], [illegible].
R 5 3 275 steps [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the [illegible] slate [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] E + W, [illegible] by a [illegible] contact [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible].
R 5 5 145 [illegible] [illegible] is [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].
Y 5 5 75 steps [illegible], plenty of amygdaloid.
Y 5 6 75 steps [illegible], plenty of conglomerate, [illegible] [illegible] surface [illegible] [illegible] well exposed. No amygdaloid [illegible] [illegible].
R 5 7 Conglomerate, [illegible] [illegible] [illegible] R.R. station [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible].
R 5 8 Plenty of amygdaloid [illegible] [illegible] [illegible] [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].
R 4 9 Red conglomerate of [illegible] [illegible] type.
R 4 10 Amygdaloid.
R 4 11 Slate, dark black [illegible] [illegible] sandy [illegible] strike about E + W, dip 10 South, [illegible] [illegible] [illegible] [illegible].
L 5 1 [illegible]
L 5 2 Very [illegible] [illegible]
R 4 12 Amygdaloid. A [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] abundance, [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] E + W, dip 25 South


Weymouth Back River.

slate overlies the conglomerate. All of the general age.

22
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Fig 5-2 Second sketch. Strike about E + W, about 200 feet south of
finest the limestone.

Lg 5 2 Greenish shale. Strike about E + W. about 200 feet south of limestone ledge[illegible].

Lg 5 3 Greenish shale underlain by limestone layer very full of Hyolithes + Trilobites at one place. These slope southward are thinner limestone layers & continuing for 3 more steps southward, then greenish shale. Strike N 7 E dip vert or slightly S. [illegible] strike towards [illegible] on next road south. 15 steps southward purple limestone [illegible] nodular masses come in.

Lg 5 4 On west side of road south of line of station Lg 5 the purple shales continue to show the scattered nodules of limestone + spindle.

Lg 5 5 Along Pearl St running E + W is more purplish slate with spindle nodules.