

THE FAULTS OF BATTERY POINT, SYDNEY, N. S.*—BY T. T.
FULTON, B. Sc., B. E. (Mining).

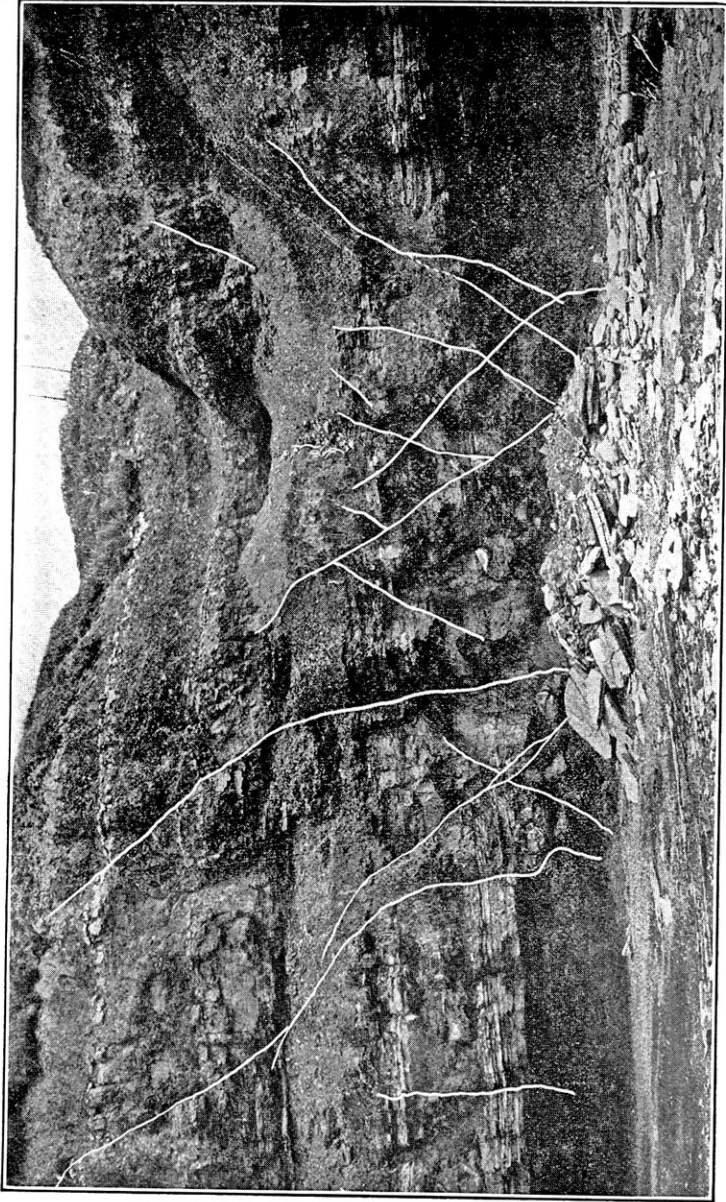
(Read 14th March, 1904).

The field work for the following paper was done during the spring of 1903, in the course of studies pursued in the Summer School of Dalhousie University.

The section under discussion is situated at Battery Point, Sydney, Cape Breton. It extends from a point 200 feet south of the old railway pier, for about 1,000 feet in a southerly direction. The faulted area begins 134 feet south of the beginning of the outcrop, and is about 400 feet long. Some faults, which in the accompanying section are shown as extending to the top of the cliff, may lessen or die out toward the surface; for the strata are not always easy to correlate:

The rocks are in the Carboniferous Limestone (Windsor) series. They are largely gray calcareous shales, with bands of concretionary clay ironstone, which vary from a few inches to eighteen inches thick. The ironstones have been employed to determine the displacements, as they are easily distinguished. The average strike of the strata is N. 42° W. (mag.), and the dip 11° N. The face of the cliff, near the top, is in many places covered with talus, which rests upon especially resistant strata that stand out below. It is this talus which makes it impossible, in some instances, to determine whether the faults pass unchanged to the surface or die out. In a few cases the latter condition was seen, in many the former. No other outcrops are available to determine the extent of the faults along the strike.

* Contributions from the Science Laboratories of Dalhousie University—Geology and Mineralogy.



Most broken portion of the section showing details of faults, Battery Point, Sydney, C. B.
(Fault lines etched in white.)

The following table gives the data for each fault, beginning with No. 1 on the the extreme north (left, in the section):

Section Number.	Class.	Strike.	Dip.	Displacement.
I.....	Normal.	N. 78° E.	48° S.	4"
II.....	"	E. —W.	52° S.	2"
III.....	"	N. 48° E.	60° S.	2"
IV.....	"	N. 70° E.	40° S.	1"
V.....	"	N. 48° E.	60° S.	5"
VI.....	"	N. 80° E.	50° S.	3' 3"
VII.....	"	N. 70° W.	48° S.	1' 5"
VIII.....	Reverse.	N. 54° W.	68° N.	3"
IX.....	"	N. 48° W.	72° N.	1' 3"
X.....	"	N. 75° W.	62° S.	5"
XI.....	"	N. 68° W.	44° S.	2"
XII.....	Normal.	N. 82° W.	62° N.	4"
XIII.....	"	N. 75° W.	58° S.	2"
XIV.....	"	N. 45° W.	82° N.	7"
XV.....	"	N. 62° W.	60° S.	1' 1"
XVI.....	"	N. 82° W.	58° S.	2"
XVII.....	"	N. 82° W.	85° N.	3"
XVIII.....	Reverse.	N. 68° W.	85° N.	6"
XIX.....	Normal.	N. 60° W.	70° N.	1' 8"
XX.....	Reverse.	N. 70° W.	68° N.	2' 0"
XXI.....	Normal.	N. 88° W.	42° S.	1' 6"
XXII.....	Reverse.	N. 86° W.	58° S.	6"
XXIII.....	Normal.	N. 70° W.	70° N.	6"
XXIV.....	"	N. 85° W.	58° S.	3"
XXV.....	"	N. 80° W.	38° S.	6"
XXVI.....	"	N. 80° W.	62° S.	1' 0"
XXVII.....	"	N. 78° W.	58° N.	4"