

The Borthwick Theory

By E. C. DAWSON.

Professor John Borthwick closed his front door at 9.14 a. m., one moment ahead of scheduled time. This enabled him to collect a scrap of paper from his lawn and enter it decently in a bed of variegated leaves fallen from the maples bordering the roadway. The sharp October breeze exhumed it almost before his back was turned, and his housekeeper, watching from an upper window, observed that men with a vast amount of brain showed an extraordinary want of common sense.

Professor Borthwick—with the alphabet transposed after his name—walked to the end of the block and turned the corner that brought the buildings of the Canadian Geological Survey into view. For a generation past he had been one of the department's shining lights; over and above all, he was the Borthwick Theory.

It was impossible, in scientific circles, to discuss the pre-terrestrial period in Polar regions without reference to the Borthwick Theory. It permeated the calculations of two decades of geologists as inevitably as the knowledge that certain fossils were characteristic of certain horizons. The world over the Theory was discussed and quoted, argued and disseminated from. Of course, there was dissection—the very magnitude of the theme courted criticism from its bearing upon vast economic possibilities in the Northwest provinces, as yet but partially explored. Not that Professor Borthwick concerned himself intimately with economic questions; his interests were centred in the course of events before Man was.

The Theory had its origin in a handful of obscure fossils collected by the professor in early manhood, when field instructions had taken him, one of a band of pioneers, into unexplored regions bordering upon the Arctic.

Years passed, and each season found him pursuing his investigations with patient, unwavering energy; those untroubled lands became divisions, the divisions began to follow in the Geological Survey's footsteps; Professor Borthwick continued to collect fossils in summer and determine them in winter, and slowly but surely his researches strengthened his convictions.

Borthwick on Northwest geology attained importance in the eyes of the department, his views passed, in process of time, to wider acceptance as Dr. Borthwick's Theories, and finally attained impressive, singular and international significance as the Borthwick Theory.

The Professor aged with the Theory; younger men went into the field, able—where he was now unable—without the hardships entailed; he remained in his laboratory, and on the evidences of their researches continued to deduce and establish the Theory, link by link. Year by year he hoped for the conclusive results that would blaze it on time's records as incontrovertible fact.

He paused on the steps of the survey with a dawning sense of misgiving. Suppose that, in place of confirmatory evidence, the season's work served to weaken the foundations of the Theory, or in any way suggested the possibility of his evicting being right and he wrong. Even in the home survey there were men who doubted—youths of thirty-five and forty who based their arguments on experience that, compared with Professor Borthwick's, was insignificant.

A side door into the building opened to exude a couple of empty crates, indication, therefore, that the fossils and mineral specimens collected in the past season were unpacked and awaiting identification.

The Professor's autumnal elation reasserted itself, his forebodings vanished; entering the Survey, he said good-morning to the janitor in a tone that caused the official to note thoughtfully that he mounted the stairs to the next floor taking two at a time.

A spirit of bustle and rejuvenation pervaded the Survey; the field parties were assembling day by day from all quarters, and exchanging specimens and experiences.

In a corridor Professor Borthwick happened upon a man fresh from the centre—to him—of vital interest. They paused for an interchange of greetings. The Professor was popular with the younger generation, following his footsteps in the Northwest; his solidities bore everlasting witness of him and of their esteem, even though the Theory should pass, in a Borthwick mountain, a Borthwick river, and lakes to match.

"A successful season, I hope, Tillman?" said the Professor punctiliously, but with an undertone of eagerness in his voice that was unmistakable.

"That's for you to decide, Professor," the younger man replied. "There's a careful of specimens waiting for you, some of them new, I think. We followed up the west fork of the Borthwick and explored one of the unknown tributaries. A wonderful country, but the difficulties—"

"No doubt, no doubt," interrupted the Professor gently; transport problems were mere details, and he wanted facts. "Come to my room when you have a moment to spare, and I'll pursue. I should be glad to note of—"

"I should be glad to note of—"

"Good morning," said the Professor, with the same jubilation he had evinced toward the janitor. "What a delightful day!"

"Good morning," said Miss Dickson, as she stepped forward.

son, without looking up. She never encouraged the Professor to be enthusiastic at 9.30 a. m.; it involved working through the luncheon hour without a break, which was bad for both of them.

"A delightful morning," pursued the Professor, unchilled. When not conversing academically he tried to be conventional, and became commonplace. "I believe the market is going up," he added, after a pause and a flash of inspiration.

"Down," replied Miss Dickson, pursuing the damping process. She dabbled mildly in shares, and the Professor heard of his ventures with the puzzled interest that a man with a banking account and no use for money would naturally evince toward a woman with gambling propensities—and a salary.

Next to the Theory, Miss Dickson was an indispensable adjunct to the Professor's welfare. Every New Year's Eve a check, for the purchase of additional shares, lay on her desk, presented "with the gratitude and esteem of J. Borthwick."

She was a little, energetic woman, agreeable, well educated, well read; ten years as the Professor's secretary had grounded her so effectively in the Theory and all pertaining to it that she had become a source of reference on the subject, consulted by the Professor and the geological staff, indiscriminately. A kindly nature enhanced her mental attainments, coupled with an assured manner. She was self-sacrificing and self-assertive as occasion demanded, championed her chief in public, and bullied him in private as one who knew his weaknesses and corrected his spelling.

He turned to his desk and the morning's correspondence. Miss Dickson laid aside her paper.

"The new batch of fossils came in this morning," she said. "I had them arranged in the sampling room."

"I met Tillman as I came in," the Professor replied; "from what he said it's just possible that he has happened upon something new."

He reverted to his letters. "Nothing of importance—ah, yes, unfortunately—a reminder from the Editor of 'The Scientific Journal' about the contribution I promised. He shall have that note on a Fossil Fish Tooth from the Devonian—when it's finished, only"—he referred again to the letter and glanced toward the sampling room door regretfully—"he wants it at once."

"And you want to get to the fossils, so 'The Journal' must wait," suggested Miss Dickson, conniving with the Professor's inclination against his conscience.

"A promise," began the Professor pedantically, drifting toward a bureau. From a drawer containing manuscript he extracted the Fossil Fish Tooth sheets. Miss Dickson took them from him compassionately.

"I'll look through it and see what alteration is needed—your attention would be so divided," she said.

The Professor bore the imputation with meekness and made a bee line for the sampling room. "Be sure you come to me if there is anything unnecessary or unintelligible, in your opinion," he paused to add from the threshold—to propitiate Miss Dickson and palliate the sense of wrongdoing.

Miss Dickson nodded and smiled; the Professor, artful and conscience-stricken, was genuinely humorous.

Left in solitude, she commenced work on the Note; it covered several pages, closely typewritten, and even to her scientifically adjusted mind became a trifle tedious. She turned, for diversion, to the Professor's correspondence and prepared the replies for his signature.

Midday struck; the janitor knocked at the door with a telephonic dinner invitation for the Professor.

"Ask for the number and say the Professor will ring up later," replied Miss Dickson. "He is busy with some fossils, and I can't disturb him. It was her custom to waive matters of minor importance without reference to him, an authority the Professor never resented.

In the next hour various individuals dropped in for conversation with the Professor, and stayed to enjoy it with Miss Dickson. It was past the luncheon hour when the last departed, and the Professor was still closeted in the sampling room. Miss Dickson decided to give him another half hour, and reverted, hungry but patient, to the Fossil Fish Tooth. At the end of the period she knocked at the door and entered.

"Time you went to lunch, Professor," she said.

He was seated with his back toward her, before a table littered with rock specimens, his head sunk between his shoulders, his elbows resting on the table.

It struck her, for the first time, that he looked very old and shrivelled and fragile; the reaction, possible, from his earlier elation. She approached softly, to avoid startling him.

He seemed unconscious of her presence; his eyes were glued to a magnifying glass beneath which lay a fragment of limestone containing fossils.

the several languages at his command could find no word to express himself. He raised his eyes to hers, shamefacedly; a suspicion of the truth flashed upon her—she read it in her eyes—and flung the magnifier from him with a gesture of despair.

"All—dis—proved," he said, faltering from syllable to syllable, and sank back in the chair, a withered, decrepit, old, old man.

"Nonsense! Not the Theory?" she retorted, struggling with overwhelming conviction of the truth and the utter futility of fighting against it.

A knock came at the outer door. It galvanized the poor, broken old man into active misery.

"A laughing stock! A doddering old idiot. Good God!" he said.

Miss Dickson answered the knock instantaneously, stepped into the passage and closed the door behind her.

"The Professor is busy, extremely busy; for goodness' sake leave him in peace," she said with irritation to the intruder. "Oh, it's you, Mr. Tillman; I beg your pardon—will you come back presently—I mean to-morrow? Professor Borthwick promised an article for the next number of 'The Scientific Journal,' and we must get it off to-day, somehow."

Tillman departed, after a chaffing reference to the business methods of academic cranks. In his wake followed the janitor with another message.

"Look here, Simes," said Miss Dickson decisively, "tell every one who wants the professor—in or out of the building—that he's too busy to be interrupted to-day—on any account. I'm sick of repeating the same thing."

The janitor shuffled away; Miss Dickson re-entered the study and paused for a moment's reflection. Before returning to the Professor she slipped on her hat and coat.

He sighed with relief at her entry; his misery became a shade less acute in her presence; she seemed, temporarily, to stand between him and exposure. Then he noted with deeper despair that she had donned walking attire.

She came to the table and scrutinized the specimens lying before him. Next she turned to a cabinet filled with rock sections labelled "Borthwick River Series," and picked out several fragments from a miscellaneous heap, resembling in shape and size those that lay on the table.

The Professor watched her with apathetic curiosity; she came beside him and picked up the tell-tale limestone near the magnifier, and dropped the pieces one by one into the capacious pockets of her coat.

"The river," she said quietly, and arranged the specimens from the cabinet in the space beside the glass.

"No, no!" he exclaimed.

"She drew on her gloves with determination. They will never be missed," she said.

He remembered with terrible joy that she had always had her own way. She was having it now, and he sat there—unprotesting.

"Now, I'm going to lock you in for a few minutes, Professor," she resumed. "You've overdone things to-day, and you're too busy to see people."

The door handle clicked, and the key turned on the outside. Inevitable reaction succeeded the tension of the last few moments; a shiver ran through the distraught old man—his head ached, a tightness at his throat and chest turned him sick and clammy, his head dropped limply on his hands.

"I'm dying for luncheon and a mouthful of fresh air," said Miss Dickson to the janitor, in passing. "I won't be gone long, but don't forget my instructions about the Professor."



Portuguese Proverbs.
Women and glass are always in danger.
A widow's tears and a dog's limp are far from real.
A woman, a vineyard and an orchard are hard to water.
A rich widow laughs with one eye and weeps with the other.
Woman is a supernumerary when present and missed when absent.

Sunshine For the Hair.
There is no better tonic for the hair than sunshine. Sit outdoors in the sunshine every day. Loosen the hair and let the sun shine on it and the air blow through it. In the summer days go without a hat as much as possible. The hair needs to be ventilated to keep it healthy. Airing and sunning the hair every day not only keeps it sweet and clean, but is good for the scalp also. The sun will soon cure any disease of the scalp and make it healthy and active, and a healthy scalp makes strong, beautiful hair. Brushing the hair every day, "a hundred strokes," as our grandmothers used to say, will make it soft and glossy as silk.

French Women Improving.
While French women are still far from having their hands on the ballot, their position before the law is rapidly improving, as is shown by the different attitude which French juries now take toward women who, tired of being ill-treated by their husbands, take the law into their own hands. In two recent cases where wives had killed their legal tormentors they were promptly acquitted, it having been proved that they acted in self-defense when their lives were endangered, and one of the jurors added under his breath, "Served the fellows right." Such a position is thought to be highly significant of a change in public sentiment, because in the past it was felt that women should never take the law into their own hands, even in extreme cases; consequently, those who did so seldom escaped punishment of some kind.—New York Tribune.

Her Horrid Neighbor.
"I don't like our neighbor across the hall," announced a pretty little bride in a West Side apartment house.

"What's the matter with her?" asked her husband.

"She's so queer. Yesterday I was expecting Dr. Blank and his wife to call and I had to go out for a few minutes. I asked Mrs. Neighbor if she would keep the key to our apartment and I would pin a note on our door telling Dr. Blank where to find it, so they could get it and wait for me. She said she would, but that I would better describe the doctor, so she would not admit any burglars who might read the note."

"I told her she would be sure to know Dr. Blank, because he was a dentist and an awfully nice man; and, Howard, she laughed right in my face! What do you think made her do that? I don't think she's a bit nice!"—New York Press.

She Tells Character by Hats.
With jarring disregard for propriety of word formation, Lenox sojourners have bestowed the name "hatology" on the newest amusement to which they have resorted to drive away dullness. One must scrutinize carefully the hats of all one's dear friends, and from those headpieces read the characters of the wearers. A woman who says she is an authority on this new practice says: "The woman of the Alpine hat is likely to be of suspicious mind. She talks sharply to the conductor and ticket agent. But it isn't her fault. No woman with an Alpine hat can help it. That hat is what you might call the last straw on the pile of ugly shapes, and the worst of an unbecoming hat is that you never can tell what its wearer will do. The picture hat bespeaks the philanthropist. The toque, when not too severe, indicates a leaven of humor and of common sense. Hats loaded with flowers show extravagance."—New York Press.

Blamed on Peek-a-Boo.
"While clergymen and folk in the country districts are decrying peek-a-boo waists," said a woman who has the courage to wear a waist not of the popular variety, according to the New York Press, "the thing that set me against them was that I lost two open-faced watches and two four-deck pins. There is so little on that to pin a watch on an open-work waist that in a car jam I lost a valuable timepiece I treasured for sentimental reasons. I went to the car barns. They had so many complaints of lost articles that they told a woman waiting in front of me that there was no use for to leave her name and address because the lost article probably would not turn up, for finders usually pawned such articles two days after they were received. That struck me as absurd. You can just bet he didn't tell me anything like that. Well, I didn't get my watch. They said it hadn't been turned in. Since then I have lost another. It may be a peek-a-boo got it on a surface car, or it may be the weight of the watch swaying to and fro opened the pin and it dropped. At any rate, I've gone back to the old-fashioned waists. If you don't believe what I say about so many women losing their watches look at the lost and found advertisements in the papers these days."

Machine's Limitations.
"Madame," said the young man who had called at the back door on May day, "I have the pleasure of introducing to you our new automatic housecleaning machine—a simple little thing which does the whole work of housecleaning, leaving to you merely the general supervision."

"Does it all, hey?" demanded the woman of the house. "Will it wash the outside of the upstairs windows?"

"Why, no, madam, but—"

"Will it take down, wash, stretch to dry, iron and hang up the parlor curtains?"

"Well, of course—this machine—"

"Will it gild the chandeliers, paint the kitchen, make my daughter help with the dishes, persuade my husband to be contented with cold dinners, get out the screens and pinch them up?"

"Oh, madam, this machine—"

"Will it take down the parlor stove and set up the refrigerator, wash the winter bedding and put it away, lay down the furs with moth balls, paper the hall bedroom, wash down the paper in the bathroom, wash, fold, starch and iron and put away the family clothes, darn, patch and sew on buttons, wash dishes, set three meals a day and pacify the household?"

"No, madam, you have misunderstood the limitations of this machine."

"Limitations?" demanded the woman of the house. "I guess it has limitations. It will be a long time yet before any man will get up a machine that will do all a woman has to do in housecleaning time."

She took a fresh mouthful of tacks and went back to the diningroom carpet, and the agent faded sadly away.

—New Orleans Picayune.

The Old Are Younger These Times.
With increasing enlightenment in matters of hygiene the period of old age is deferred, and the tides of life now flow strongly at a time when our forefathers and, still more, our foremothers were laid on the shelf; and yet, put it off as we may, it is bound to catch up with us, unless we be of those whom the gods love. To the earlier period of meek acceptance belongs the assertion, so often repeated as to be sometimes carelessly taken for truth, that contact with youth more than anything else makes old people forget their age. Never was a more mistaken statement. In a way, it is true that the society of young persons does keep their elders young, by stimulating their pride and preventing them from giving way to certain foibles incident to their time of life. It is the nature of a salutary discipline, and those persons who are brought in contact with the little sequestered communities of old men and old women who agree that it is a discipline which is most desirable. For of all the pitfalls which lie in wait for old age the most distressing is that lack of self-control which lays bare the weaknesses hitherto kept under cover by a normally strong will. The constant presence of the younger generation is at the same time a moral goad and a support. The very instinct of self-preservation leads one to adapt oneself to their standards. If you would not be unpleasant to look at, you must cultivate the niceties of the toilet. Not for you, madam, any "sweet neglect." At your age, robes loosely flowing, hair as free as an art as befitting as a well-preserved figure and a trim coiffure. Not for you, sir, an overdiligence in slipped shoe case. Beware the trousers that bag at the knee and the wrinkled waistcoat. If you would not be an unwelcome companion you must constantly bear in mind that "brevity is the soul of wit." You must be sympathetic, but discreet; wise, but not too wise; modern, but not to be companionable, but old-fashioned enough to be suitable. And you must not expect to be understood—"The Point of View," in the Fiction Number of Scribner.

FRILLS FASHION

The old polonaise is very likely to have an extended vogue before it disappears again with discarded modes.

The skirt with many gorges always hangs better than the circular skirt and can be made as flaring as one likes about the feet.

The vogue for small hats doesn't mean there are no large hats, for there are many and the fashionable ones are very large.

In all accounts of fashionable Parisian society functions at French summer resorts the lace coat was accorded generous space.

The stole yokes in some of the new waists or blouses give prettier lines to the figure than do the chemisettes which are so often used in the same way.



Uncle Sam's Road Work.
Probably no field of work is of greater interest to the public at large than the improvement of the highways. The Office of Public Roads, as now constituted, writes a correspondent from Washington, D. C., represents a distinct stage in the development of the work undertaken by the Federal Government in 1893 by the establishment of the Office of Road Inquiry. At the time of the establishment of the office, the lack of a knowledge of existing conditions was a serious hindrance to an intelligent application of any plan for road improvement. The name originally chosen for the office was suggestive of the purpose of Congress, which was to inquire into system of road management throughout the United States, and into methods of road making, and to disseminate information as to the results of such inquiries.

In a recent report on the subject the Secretary of Agriculture said the most important result which has been attained up to this time, whether produced by influence in or outside of the Office of Public Road Inquiry, is that the people in all parts of the country are now interested in the subject of road improvement, and are seeking such information as will enable them to carry on the work along intelligent lines. It was found, therefore, that the collection of information must of necessity become only one feature of the work of the office, and that facilities must be provided for answering as well as awakening inquiries. At the same time the necessity for demonstrating scientific and economical methods of road construction instead of mere agitation has been clearly established.

While it is known in a general way that some parts of the country have progressed much further than others in the matter of road improvement, there is little available information regarding what has been accomplished in the various States and counties. If comprehensive statistics were available it would be shown that large sums of money are annually wasted in some sections, while in others surprisingly satisfactory results are obtained at a moderate cost. The office is now collecting information from every county in the United States in regard to the mileage of improved and unimproved roads, the amount of cash tax, bonds issued, and other information of a similar nature. No more telling argument for reform in wasteful methods can be adduced than to bring home to every county just what results they are obtaining as compared with the results obtained by other counties at a similar cost.—The Automobile.

The Split Log Road Drag.
Ten years ago a Missouri farmer who had grown tired of wading through a "slough of despond" every spring when the roads were soft and who had seen his neighbors lose time, money and patience when their wagons were hub deep in the mire or their horses tugging and straining in their harness to get a half load to market, decided that there must be some remedy for this condition. One day, in thinking it over, he made the astonishing discovery that what made the roads muddy was mud, and if the road was worked into such a shape that the water would drain off instead of soaking into the ground after every rain the roads would cease to be muddy.

By means of three inches of fence board he rigged up a home made contrivance out of an old wooden pump stock that the frost had spoiled and an oak post. He nailed these together so that they were held parallel to each other. Then he made a rough plank platform on which to stand, and by means of wire hitched his team to this clumsy affair at such a point that it would drag along over the road with a slant of about forty-five degrees.

He began with the road that ran in front of his own farm. When it was at its worst he drove up and down, from his own front gate to that of his nearest neighbor. Like a huge mason's trowel smoothing off mortar it scraped along, cutting down the inequalities and rough places and filling up the wagon ruts. He kept at it, and after a number of draggings, in place of the flat basin that had served as a water course for every storm to settle in he had built up a road with a crown and surface that was smooth enough to shed water "like a duck's back." In short, he simply demonstrated the soundness of his major premise, "If I can get rid of the mud the roads will cease to be muddy." The device he made he called a "split log road drag."—Claud H. Miller, in Farming.

A Princely Signalman.
While Prince Arthur of Connaught and his suite were recently travelling by steamer along a Canadian river a man standing on the bank began waving a pocket handkerchief on a stick, and the Prince, taking his own handkerchief from his pocket, waved back again. Then, turning round to the bystanders Prince Arthur said: "The man signaled the words 'Welcome to Canada,' and I have replied, 'Thank you.'"—New Haven Palladium.

Sweet Attraction.
"Labor like the ant," advised the wise mother.

The lady boy sulked. Presently he rushed back in great glee.

"Oh, mamma!" he exclaimed, excitedly. "Can I labor like the ant right now?"

"You certainly can, my son," replied the delighted mother. "But what prompted you so suddenly?"

"Why, I just found an army of ants laboring around your jam-jars."—Chicago Daily News.



On the Ragged Edge.
"I'm broke!" exclaimed the worn-out shoe; "Aye! worse than that. Ah me! I'm on my uppers, for I've lost my sole support, you see."

Tom Knew.
Teacher—"Tommie, what is the hardest wood that grows?"

Tommie—"The kind a feller's got to split."—Yonkers Statesman.

Cutting.
Lady (with pet)—"Barber, I want my dog clipped and shaved."

Barber—"Pardon me, madam, I'm no skye-scraper."—Boston Transcript.

No Joke.
Giles—"Uncle Sam ought to send a lot of servant girls to China."

Miles—"What for?"

Giles—"To smash it."—Chicago News.

Dies Non.
The Girl—"The fortune teller told me that the eighth day of the month is the luckiest to be married on."

The Cynic—"You were misinformed, my dear. It's the eighth day of the week."

Cautious.
Yeast—"I understand he always writes his poetry when he is alone."

Crimsonbeak—"That's right. He hates to have people see him make a fool of himself."—Yonkers Statesman.

To Be Exact.
Ascum—"I hear your family has gone South for the winter."

Miss Stickler (of Boston)—"Not at all. They have gone South for the absence of winter peculiar to that locality."—Philadelphia Press.

A Cheaper Way.
Old Kelly—"Do ye think men should be chloroformed at sixty. No, rah?"

Mrs. Kelly—"Phat, wid chloroform so expensive! That's the matter wid an axe?"—New York Press.

A Possibility.
"Great financier, isn't he?"

"Yes, indeed. Very able man. He would have succeeded in any line."

"Beyond a doubt. I think, if he had tried he could even have made an honest living."—New York Press.

In Dispute.
"Whose little boy are you?"

"Well, Sally Jones says I'm her, and Maria Muggins says I'm hers, so you kin take yer choice."—New York Journal.

In His Line.
"That young man I have invited to dine to-night is a very promising engineer," explained the hostess. "I want you to entertain him if you best your ability."

"What shall I talk about?" asked the pretty girl, "bridge?"—Detroit Free Press.

Thoughtful.
"Are you sure the sick man wanted me?" asked the physician, reaching for his hat.

"He didn't mention your name, but he's screaming for some one that'll put him out of his misery, and I thought of you right away."—Houston Post.

System.
"Maria, what's the use of your telling the girl to be sure and wake you at 6 o'clock? She does it every morning, and you never get up."

"John, I don't want you to interfere with my way of running the house. When that girl calls me at 6 o'clock, I know she's up."—Chicago Tribune.

Raised the Bid.
"I'm surprised you took up with that tortoise-shell Thomas cat," said the first tabby.

"That Maltese fellow told me he loved you as he loved his own life."

"Yes," the other replied, "but the tortoise-shell told me he loved me as he loved his nine lives."—Philadelphia Ledger.

Overlooked One Part of It.
The rector's little daughter did not appear to wholly satisfied.

"Why, dear," said her mother, "don't you remember you prayed the other night for a brown collie dog? Well, here it is."

"Yes," pouted the little girl, "but I prayed for a brass collar and chain, too!"—Chicago Tribune.

An Inference.
Mrs. McCall—"I do wish I could get a good maid."

Mrs. Uppish—"You might interview mine. I think she'd be delighted to go to you."

Mrs. McCall—"But why don't you keep her?"

Mrs. Uppish—"Oh! she won't stay. She says she wants a place where she won't have so many gowns and hats to take care of."—Catholic Standard and Times.