

THIRTY-SIXTH SESSION—(Continued.)

SECOND CLASS—Grade A.—(Cont'd.)

2321 Ebbels, Walter Dennis.
2322 Eccles, Daniel.
2323 Kennedy, Neil.
2324 McLenn, James.
2325 Slavin, Edward.
2326 Wellwood, Nesbitt John.

Grade B.

2327 Carlaw, Davidson.
2328 Costin, William.
2329 Hendry, Andrew.
2330 Herner, Samuel Shantz.
2331 Milne, Walter Baird.
2332 McDiarmaid, John.
2333 McKay, William.

Females.

FIRST CLASS—Grade A.

2343 Couzens, Emily.

Grade B.

2344 Jones, Anna Elizabeth.
2345 Kessack, Margaret.
2346 Meldrum, Margaret Jane.
2348 Turnbull, Sarah Annie.

THIRTY-SEVENTH SESSION—DATED 15TH JUNE, 1867.

Males.

FIRST CLASS—Grade A.

2391 Douglass, William Alexander.

Grade B.

2395 Britton, William.

SECOND CLASS—Grade A.

2398 Henderson, Robert.
2399 Leslie, Alexander.
2401 McFarland, Robert.

Grade B.

2403 Edmison, Ralph Heplop.
2404 Kellogg, Charles Palmer.
2405 Pollock, James Edward.
2406 Rothwell, Peter Duilligas.
2407 Silcox, John.
2408 Stewart, Elihu.

Females.

FIRST CLASS—Grade A.

2418 McCausland, Caroline Elizabeth

Grade B.

2414 Brown, Margaret.

Grade C.

2418 Hatton, Sarah Adelaide.
2420 Maret, Sabina Hawkins.

THIRTY-EIGHTH SESSION—DATED 22ND DECEMBER, 1867.

Males.

FIRST CLASS—Grade A.

2466 Davey, Peter Nicholas.
2467 Fullerton, James.

Grade B.

2468 Durham, William.

Grade C.

2469 Atkinson, John Sangster.
2470 Fraser, William.
2471 Linton, John.
2472 Robertson, Duncan.
2473 Rannie, William.
2474 Schmidt, George.
2475 Tremser, Thomas.

SECOND CLASS—Grade A.

2476 Bonnar, Horatio James.

Grade C.

2349 Bennetto, Susan Elizabeth.
2350 Fairgrieve, Agnes.
2351 McDonald, Isabella.
2352 Somerville, Agnes.
2353 Sparling, Mary Jane.
2355 Young, Mary.

SECOND CLASS—Grade A.

2356 Butler, Harriet Jessie Edith.
2357 Drury, Martha Jane.
2361 Reeves, Ellen Margaret.
2362 Scarlett, Mary Elizabeth.

Grade B.

2365 Boyce, Martha Jane.
2367 Clark, Jane.
2369 Forsyth, Annie Dossin.
2370 Hurlburt, Maria.
2371 Kenny, Christina.
2374 McLeod, Mary.
2375 Patterson, Clara Amelia.
2377 Riddell, Elizabeth.
2378 Robbins, Clara.
2380 Sylvester, Emily.
2381 West, Eliza Jane.
2382 Wilson, Jane.

SECOND CLASS—Grade A.

2423 Baxter, Louisa.
2424 Comfort, Sara.
2425 McGeorge, Mary.
2427 Mearns, Isabella.
2428 Moorcraft, Sarah Esther.

Grade B.

2434 Cameron, Jane.
2435 Dorland, Lydia Catherine.
2437 Howe, Francis Esther.
2438 Keam, Mary Roberts.
2439 Lawrence, Fanny Helena.
2440 McCrea, Mary Ann.
2443 Nesbitt, Agnes.
2444 Preston, Elizabeth Jane.
2445 Prior, Joanna Amelia.
2447 Rogers, Agnes.
2448 Smith, Charlotte.
2449 Thompson, Mary Jane.
2451 Woodside, Jane.
2452 Wright, Mary Ann.

Grade C.

[Expire 15th June, 1868.]

2454 Clark, Alvina.
2455 Coyne, Margaret Jane.
2459 Guillet, Mary Ann.
2460 Harris, Elizabeth.
2462 Mills, Jane.
2463 Moore, Sarah.
2464 Page, Minnie Emilie.

Grade B.

2482 Boyle, William S.
2483 Harris, Benjamin Wesley.
2484 Fraser, Donald Blair.
2485 Fulton, James.
2486 Hogarth, Thomas.
2487 Kirk, William.
2488 Lean, John.
2489 McAndrew, James.
2490 Smith, Edward Saunders.
2491 Stahlschmidt, William.
2492 Walker, James Taylor.

THIRTY-EIGHTH SESSION—(Continued.)

Grade C.

[Expire 22nd December, 1868.]

2493 East, Cornelius.
2494 Jessop, Elisha.
2495 Jones, James Robert.
2496 McEwen, John.
2497 McFarlane, Peter Alexander.
2498 O'Brien, William.
2499 Scallion, James William.

Females.

FIRST CLASS—Grade A.

2500 Mathews, Agnes Olivia.
2501 McMahon, Catherine.
2502 Paterson, Mary Theresa.
2503 Scott, Margaret Taylor.
2504 Worth, Mary Anne.

Grade B.

2505 Lemon, Kate.
2506 Sutherland, Margaret.

Grade C.

2507 Hepburne, Rhoda.
2508 Jones, Louisa Harriet.
2509 MacDonald, Margaret.
2510 McLaughlin, Elizabeth Anne.
2511 Riddell, Mary Anne.
2512 Tuttle, Alice Mary.
2513 Wood, Henrietta.

SECOND CLASS—Grade A.

2514 Aird, Margaret.
2515 Andrews, Abigail Wilkinson.
2516 Armstrong, Elizabeth.
2517 Beattie, Mary.

2518 Corrigan, Augusta Margaret.
2519 Dowswell, Mary Jane.
2520 Duffia, Mary Charlotte Jane.
2521 Jones, Eleanor Josephine.
2522 Lowrie, Eliza Jane.
2522 McEachren, Charlotte Emma.
2524 Ramsay, Mary Ann.
2525 Robertson, Margaret Gordon.

Grade B.

2526 Ableson, Huldah Ann.
2527 Bell, Emma Elizabeth.
2528 Calder, Elizabeth.
2529 Dcswell, Elizabeth.
2530 Ellis, Louisa Josephine.
2531 Fletcher Margaret.
2532 Fraser, Margaret.
2533 Gibson, Margaret Agnes.
2534 Harney, Ellen Nora.
2535 Moore, Isabella.
2536 Morton, Hester Amelia.
2537 McDonald, Annie Jane.
2538 Sharpe, Jennie Anna.
2539 Simpson, Mary.
2540 Thompson, Charlotte Emily.
2541 Walsh, Margaret Elizabeth.

Grade C.

[Expire 22nd December, 1868.]
2542 Fuller, Henrietta.
2543 Germain, Mary Eleanor.
2544 Schofield, Amelia Monro.

Addition to List of 37th Session.

FIRST CLASS—Grade C.

2545 Brown, Sophia Georgiana.

The foregoing is a complete list of all Provincial Certificates for Ontario which have not been cancelled or suspended by law. The list contains the names of those whose certificates have expired by death, as the department does not receive information on that point.

Certified

ALEXANDER MARLING,

Registrar.

EDUCATION OFFICE,
Toronto, January, 1868.

IV. Papers on Meteorology, &c.

1. THE SUN'S ATMOSPHERE.

In a lecture on spectrum analysis, delivered before the Royal Institution of Great Britain, Dr. W. A. Miller said:—

"The phenomenon to which I am going to direct your attention is only visible on those rare occasions when the disc of the sun is obscured by the passage of the moon between us and its body. In those cases and under suitable conditions, we have an opportunity of ascertaining that the sun is surrounded by a vast atmosphere, which is not in that intensely glowing and incandescent condition which the surface that we usually see is. I have here a photograph which represents an observation made by Dr. De La Rue in July, 1860. This indicates the appearance which is seen when the whole disc of the sun, which is visible under ordinary circumstances, is entirely eclipsed by the moon. You will notice that round the dark body of the moon we have a remarkable halo of light, and that this halo is at certain points much more brilliant than at others,—that in point of fact, there are points thrown up in the atmosphere.

"Some of these clouds have been seen detached from each other. It is estimated that the height at which these clouds occur is in some cases at least 72,000 miles from the surface of the sun, so that around the sun there is a vast atmosphere invisible under ordinary circumstances, into which visible atmosphere are projected what you see here, and what have been called red flames, clouds probably of incandescent matter. In this photograph the solar atmosphere is all of one uniform tint, but as actually seen, its projections, instead of being white, are of a rich red color, and possesses considerable photographic power. Thus, if the atmosphere is favorable, opportunity will be given to persons properly prepared for making observations upon these flames by means of the spectroscope, and thus, probably, of ascertaining what the constituents are."