

TESTS OF PINE TIMBERS:

Tests of pine timbers, carried out by Professor R. W. Chapman, of the Adelaide University, point to the superiority of the Canary Island pine (Pinus canariensis) over both the Remarkable pine (Pinus insignis) and the Maritime pine (Pinus maritima). Several hundred tests of the timbers were made, and the outstanding feature of them all was the great strength of the Canary Island pine as compared with others. Taking the average weight of all the beam tests, a beam of this timber 12 in. by 12 in. and 12 ft. long will carry a central load of about 42 tons before it breaks. An Insignis beam of the same size will carry 24 tons, and a Maritime 19 tons. Oregon beams of the same size will carry 26 tons. Similarly, a short column of Canary Island pine 12 in. by 12 in. will carry a load of 533 tons before it actually breaks. Insignis will carry 297 tons, and Maritime 336. Canary Island pine flourishes in 18 to 20 in. rainfall areas, and better still in heavier soils in the 20 to 25 in. rainfall areas. It is a tree that is particularly free from disease, and yields an extraordinary amount of resin and turpentine. It is about 15 per cent. slower in growth than the Insignis, but when drought is killing the latter it is flourishing. Moreover, it is not readily destroyed by fire, as it will sprout again.—Science and Industry.

Argus 10-1-20

SATURDAY, JANUARY 19, 1920.

Almost all universities are in need of money. Students have greatly increased, while the real value of all revenues has diminished. Instead of fees being raised the tendency is to lower them or do without them altogether. This only makes the situation more critical. Either universities must obtain money, much money, or they must gradually diminish their work or even close their doors. So the question arises: "Does the world desire universities and university education to continue, and, if so, how are these things to be paid for?" Oxford and Cambridge are falling back on the Government, and are trying to obtain money from the public. But this means the admission of political and Parliamentary and civil service control into university life. Harvard has chosen a wise course. The Harvard University spirit is strong; there are Harvard clubs scattered throughout the world, and the Harvard graduates are waking up to do something for their old home of learning. They are trying to raise 15 million dollars to meet the immediate needs of their university. The "Spectator" of October 25 compares favourably the Harvard way with the Oxford and Cambridge way. It points to the outrageous corruption of the German universities through the political interference of the German Government. But this is only one instance, although an extreme and a striking one. The real question lies deeper, and is this:—"Is it possible to run a university under State control? If that control is active—not merely the latent control of a body of trustees who never interfere—then must not the university gradually change from a university into something else?" That is the problem before Oxford and Cambridge and Harvard. It is also the problem before Melbourne. The "Spectator" advises Oxford and Cambridge to firmly resist the attempt of the Government to get its hands upon them; and the advice may be repeated with emphasis to the Melbourne University.

The Melbourne University needs much more money. Its students are increasing, its classrooms are crowded, its revenues are at a standstill, its fees must be diminished rather than increased, and so it appealed to Parliament. The Premier most graciously promised immediate relief. But, unfortunately, at this critical time the question

of reorganising the government of the University happens to be before the public, and to enable the radical element in Parliament to improperly exact a quid pro quo for the money to be granted a bill has been introduced into Parliament which practically converts the University into a civil service institution under the Minister and Director of Public Instruction. It makes the University into a glorified State school, and the professors and lecturers into State school teachers. This is the way that the Ministry panders to politicians, most of whom have had nothing but a primary State school education. These politicians argue: The State school system was good enough for us; why is it not good enough for the University? What is the University, after all, save a higher grade State school, where the elements of professional knowledge are imparted? So the State is to take control. The University is to be run on the lines of a primary school, and the old ideal whereby the soul of a people lives is to be put away, forgotten, abolished. But why not? asks the casual observer of the struggle. What, after all, is the difference between a university and a State school? Why should not the Director and the Minister control both? That question is easily answered.

In the State school system three tendencies are to be noticed. First, there is the tendency of the daily method which is to keep back instruction to a point wherein the most backward can join. Then, arising out of that, there is the tendency of the teacher to be satisfied with small mental gains both for himself and others. Whatever his ambitions once were, he settles down to a complacent satisfaction with a very limited knowledge. Last, there is the tendency to develop a method or "mill" which all the small human atoms must be put through in order to make them capable of earning a living wage. Compare these three tendencies—which are more than tendencies, for they become ideals—with the aim of every university and the achievement of every great university. Instead of the limitation of knowledge, the ideal of the university is its indefinite increase. Research, and then again more research! It matters not how few or how many students can keep up with it. Original work, a new point of view, an enlargement of the horizon—these are the ideals of the university teacher, and these are the exact opposite of anything that can live under civil service control. Then there is, or there should be, the divine discontent of the teacher. Whatever he knows, he must wish to know more. He always seems to himself like a child groping in the dark or playing with the pebbles on the shore. He can have no complacency, no satisfaction in the small mental gains of either himself or his students. Last, there is the ideal of the personal discipleship, not a method or a "mill," but a great teacher, a Maxwell or a Kelvin, with a band of devoted disciples around him, catching his spirit, being initiated

into his methods—that is the ideal of the university classroom.

That is an answer to the cry, What, after all, is the difference between a university and a higher grade State school? And, because of that difference, no university can remain a university when it becomes part of the State school system, and its teachers are mere routine officials, working by a time-table, and advancing by the seniority of a civil service gradation. Primary education may have to be run in that way; secondary education becomes difficult in that way; university education becomes impossible. The aim of primary education is to turn out artisans, of university education to turn out artists. The one has enough knowledge to make him a useful citizen; the other is a lover of knowledge endlessly. The one wishes to make a living and to rise in the world; the other is content to be poor, unknown, obscure, neglected, forgotten, so long as he can extend the bound of human knowledge and help to free the human spirit from the slavery of darkness. The Education department, with its State school system, may do its work well, but it can do only its own work. The State must endow its University as a separate and distinct institution altogether, and must trust it also to do its own work. But, above all, the University graduates should, as in the case of Harvard, wake up and do something for their old home. If the University is really a home and not a mere boarding-house its old members will not willingly let it die or be mutilated or deformed. Men will not lay down their lives for a boarding-house, but they will for their home or their country. If our University has been really worthy of its name, then it must be to the graduates rather than to Parliament that we look for its rescue. What do they propose to do to fulfil their obligations?

Reg. 13-1-20

THE UNIVERSITY OF ADELAIDE.

PUBLIC EXAMINATIONS BOARD. JUNIOR PUBLIC EXAMINATION, 1919.

Candidates who are classified as under age, were under 16 years of age on December 1, 1919.

HONOUR LISTS. The following lists show the names of candidates who have distinguished themselves in the separate subjects. Under each subject there may be two lists:—(i.) The names of those who are under age, arranged in order of merit; (ii.) the names of those who are over age, arranged in alphabetical order. Where subjects are common to both Junior Public and Junior Commercial Examinations, the numbers indicate the position of Junior Public candidates after combining the results of the two examinations. The names of the Junior Commercial candidates are shown in the honour lists of that examination.

—English Literature.— I. Under Age.—d. Campbell, J. (Tennyson Medal); 2, Young, D. K.; 3, Poole, K. S.; 5, Dorsch, M. H.; and Nelligan, M. T. (equal); 9, Deland, E. W., and Mara, M. A. F. (equal); 22, Sabel, J. P. T.; 13, Richards, M.; 15, Acraman, N. S. K.; Allen, L. N.; Fyfe, D. M.; Heidrich, L. A.; Lamphee, M. M.; and Roberts, J. (equal); 23, Ralph, C. M., and Thompson, J. F. (equal); 27, Barwell, M. G., Cockburn, F. S., Crompton, M. E., McKay, D. G., Mayfield, M. A., Murrowood, G. M., Newbold, L. C., Prince, E. M., Smyth, H. M., Walker, L. S., and Watchope, P. J. (equal). II. Over Age.—Balleine, G. J., Blucher, D. M., Bradley, L. F., Curtin, I. E. S., Dighton, C. F., Dunbridge, W. P. S., Gurry, L. J., Hahn, H. W., Lohr, A., Marshall, P. C., Montross, J. W., Sim, N. E., Springbett, E. M., Sukke, F. A., Sweetman, E. J., Wade, A. F.

—History.— I. Under Age.—1, Andrew, H., Campbell, J., and Robjohns, M. F. (equal); 4, Kither, E. H.; 7, Murrowood, G. M.; 8, Bampton, J., Bolles, E. W., Crompton, M. E., and Slatery, M. (equal); 12, Culshaw, G., Heidrich, L. A., Mara, M. A. F., and Mayer, V. R. (equal); 16, Barwell, M. G.; 17, Wait, S. G.; 18, Dorsch, M. H.; 20, Benson, G. E. J., Burfield, A., and Vickers, F. A. (equal); 22, Jenkin, R. G., Lamphee, M. M., Smith, W. N., and Young, D. K. (equal); 27, Child, M. B., Giles, N. F., Roberts, C. E. II. Over Age.—Balleine, G. J., Gibson, M. L., Gurry, L. J., Nisde, T. P., Prenator, E. Y. H., Smith, D. E., Spicer, D. D., Truhen, C. M., Wade, A. W., Williams, M. H., Wright, L. K.

—Geography.— I. Under Age.—1, Polkinghorne, K.; 2, Mayfield, M. A.; 3, Fyfe, D. M. II. Over Age.—Jacob, C. E. F. —Greek.— II. Over Age.—Dighton, C. F. —Latin.— I. Under Age.—1, Barwell, M. G.; 2, Kelly, P. J.; 3, Davis, H. J.; 4, Culshaw, G. V.; 6, Riddie, W. S. C.; 6, Mara, M. A. F., and Smith, A. D. (equal); 8, Young, D. K.; 9, Deland, E. W.; 10, Dorsch, M. H.; 11, Burfield, A.; 12, Crompton, M. E.; 13, Somerset, H. B.; 14, Chapman, H. T.; 15, Acraman, N. S. K.; 16, Andrew, H., Balfour, G. M., Holdsworth, L. M., and Newman, L. A. (equal). II. Over Age.—Campbell, J., Deegan, B. A., Gurry, L. J., Heier, E. H., Wade, A. F. —French.— I. Under Age.—1, Poole, K. S.; 2, Barwell, M. G.; 3, Cantine, J. V., and Prince, E. M. (equal); 5, Dorsch, M. H.; 6, Burfield, A.; 7, Kelly, P. J.; 8, Crompton, M. E.; 9, Smith, A. D.; 10, Dunstan, J. M., and Newman, E. D. (equal); 12, Acraman, N. S. K.; 14, George, N. E., and Young, D. K. (equal); 16, Smith, V. M. H.; 17, Deland, E. W.; 18, Flaherty, F., Lamphee, M. M., and Thompson, M. K. (equal). II. Over Age.—Bradley, L. F., Ferry, M. N., Kelly, N., and Marshall, P. C. —German.— I. Under Age.—1, Sabel, J. P. T. II. Over Age.—Fechner, M. J. T., Jacob, C. E. F., and Lohr, A. —Arithmetic.— I. Under Age.—1, Davis, H. J., and Longbottom, H. T. (equal); 3, Dix, A. J.; 4, Chapman, H. T., Graham, G. F., and Wait, S. G. (equal); 7, Balfour, G. M., and Shepherd, W. A. (equal); 9, Aitchison, G. J., Nadebaum, R. C., Newbold, L. C., Pearson, F. B., Phillips, W. H. O., Riddie, W. S. C., Ridley, L. F., and Verrall, H. W. (equal); 17, Allen, L. N., and Odgers, W. B. (equal); 19, Flaherty, F., Gooding, M., Hanley, J. W., Smith, A. D., and Young, D. K. (equal); 21, Batten, R. L., Beck, R. L., Collins, L. P., Fraser, R. B., Loogbold, R. H., Lewis, H. L. B., Polkinghorne, K., and Reeves, R. K. (equal); 22, Allan, R. T., Burfield, A., Butler, W. H., Eakland, J. G., Greene, T. A., Hughes, H., and Potter, V. W. (equal); 29, Fyfe, D. M., and Kunnick, J. A. C. (equal); 41, Candy, M. G. L., Copley, L. J., Dawkins, A. L., Furler, P. S. N., Hamilton, R. W., Newman, P. M. M., Slatery, M., Smith, E. G. II. Over Age.—Blucher, D. M., Bradley, L. F., Duncan, E. M., Gurry, L. J., Hitchcox, D. M., Hocking, K. J., Jacob, C. E. F., Lundie, A., Sukke, F. A., Weatherly, D. I. —Algebra.— I. Under Age.—1, Burchell, T. F.; 2, Allan, R. T., and Pope, S. B. (equal); 5, Fraser, K. B.; 6, Ralph, C.; 8, Crompton, M. E., Mara, M. A. F., and Pearson, F. B. (equal); 11, Wait, S. G.; 13, Dixon, L. D., Gent, A. F., Newbold, L. C., and Reeves, R. K. (equal); 18, Lang, E. W.; 19, Adamson, W. K.; 20, Dalton, E. A.; 21, England, H. N.; 22, Doley, E. M., and Welcome, R. J. (equal); 24, Culshaw, G. V., Leader, H., and Verrall, R. W. (equal). II. Over Age.—Axford, L. P., Bridgland, L. S., Davis, A. E., Fors, K. L., Gurry, L. J., Hawkes, F. J., Jacob, C. E. F., Lundie, A.

—Geometry.— I. Under Age.—1, Pearson, F. B.; 2, Butler, W. H.; 3, Graham, G. F.; 4, Clifton, C., Douglas, S. J., Fraser, R. B., Newbold, L. C., and Richards, M. (equal); 9, Gent, A. F., and Holdsworth, L. M. (equal); 11, Dix, A. J., Fyfe, D. M., and Jacob, M. A. (equal); 14, Ridley, L. F., and Sweet, E. L. (equal); 16, Schafer, N. T. H.; 17, Day, F. J.; 18, Dunninghoff, A. A.; 19, Oogreave, F. G.; 20, Collins, P. J., Crawford, C. G., Dingle, F. M., Parker, G. G., Riddie, W. S. C., Somerset, H. B., Sturm, L. R., Symons, C. T., and Taylor, W. G. (equal); 29, Culshaw, G. V., and Morgan, D. B. (equal). II. Over Age.—Barbary, N. C., Burford, K. O., Cutten, C. W., Fechner, M. J. T., Gerard, A. H., Gibson, M. L., Hague, M. P., Hocking, K. J., Hutton, E. E., Ingleby, J. R., Lundie, A., Montross, J. W., Searle, I., Summers, J. T., Todd, H., White, H. T.

—Physics.— I. Under Age.—1, Douglas, S. A., and Finlayson, C. S. (equal); 3, Butler, W. H.; 4, Esklund, J. G.; 6, Clark, R. D., and Fraser, R. B. (equal); 7, Daniel, O. H.; 8, Allen, L. N., and Smyth, R. M. (equal). II. Over Age.—Anderson, R. M.; Jarvis, A. J.; Lundie, A.; Matheson, J. G.; Wells, T. F.

—Chemistry.— I. Under Age.—1, England, H. N.; 2, Riddie, W. S. C.; 3, Morris, J. L.; 4, Margarey, I. S.; 5, Burfield, A., Mathews, S. J., Smith, A. D., Stewart, D. G. L., and Thomas, R. K. (equal); 10, Allan, R. T.; 11, Davis, H. J., and Hoeker, C. F. (equal); 13, Inglis, A., and Pearson, R. A. (equal); 15, Butler, W. H.; 16, Graham, G. F.; 17, Allen, H. J. II. Over Age.—Andrews, J., Gwynne, R. C., Rahn, H. W.

—Physiology.— I. Under Age.—1, Smith, V. M. H.; 2, Barwell, M. G.; 3, Kernot, V., Lamphee, M. M., and Young, D. K. (equal). II. Over Age.—Bradley, L. F.

—Botany.— I. Under Age.—E. Heidrich, L. A.; 2, Benzona, G. E. J.; 3, Clifton, C., and Murphy, W. M. (equal); 5, Congreve, F. G., Kernot, V., and Lamphee, M. M. (equal). II. Over Age.—Hardy, A. G., Trudgen, C. M., Wade, A. F.

PASS LISTS. In the following pass lists, candidates are divided into two main groups:—(a) Those who were under 16 years of age on December 31, 1919; and (b) those who were 16 years of age, or over, on that date. Each of these groups is subdivided:—(i.) Those who passed in English literature and at least four other subjects; and (ii.) those who did not pass in the five required subjects. English Literature (Eg), English History (H), Geography (Gg), Greek (Gk), Latin (L), French (F), German (Gn), Arithmetic (Ar), Algebra (Al), Geometry (Gt), Physics (Ph), Inorganic Chemistry (C), Physiology (P), Botany (B), Drawing (D), Theory of Music (M). As x denotes credit.