II. Students in foreign universities and other investigators who desire to avail themselves of the services of the university center should make application by letter to the secretary, stating the nature of the work which they propose to do in Washington. Upon arrival they should register at the office of the secretary and will be referred to the appropriate member of the board of research advisers. No record will be kept of their work nor will any report be made on it.

Political Research.¹ Last year in a paper entitled "The Present State of the Study of Politics" I undertook to discuss some fundamental aspects of the scientific study of government. Further consideration will be given here to some of the vital problems of political research.

It seems appropriate to begin with the personal equipment of the professional students of politics. We may ask, is the modern equipment of students of government superior to that of the earlier days? Is our equipment abreast of the mechanical opportunities and the organization facilities of our time? For some time I had thought of Aristotle as working alone, but recently I found a statement to the effect that the Greek philosopher had under him scores of men who scoured all of the countries of the world for political information to be placed at his disposal. In view of the fact that Aristotle was the teacher of no less a personage that Alexander the Great, it is conceivable that he may have had a sufficient influence with his powerful pupil to bring this about. In this respect none of us is as well off as was Aristotle.

Certainly we cannot contend that the students of politics are as well equipped for purposes of inquiry as the mechanical and organizing tendencies of the time would warrant. In these days of the improvement of means of communication and of efficient organization of means of collecting facts, we have fallen behind the possibilities of our times, and that by a very long interval. Our libraries are fortunately large and well-equipped as a rule, but not all of the material necessary for the student is found within the walls of the library.

Richard S. Childs has recently criticised the students of political science for the lack of detailed studies of the practical workings of governmental operations; and his criticism although overdrawn should be taken very seriously. Field work is not a luxury, but a prime necessity in the study of government. But, as he himself explains, professors are seldom overpaid and they do not have the funds necessary for

¹This is a condensed statement of the discussion of the subject at the Pittsburgh meeting of the American Political Science Association, in December, 1921.

traveling and for observation in leisure time. Secretarial, stenographic assistance, trained helpers are also lacking as a rule, and this adds to the difficulty of the research man in the field of politics. In funds for field work and in the services of assistants and helpers we have fallen behind our brethren in the laboratories and in that field of work known as natural science; and what is more we have fallen behind the possibilities and needs of our day. Unless we can develop personal equipment superior to that now commonly found, our progress will be very seriously hindered.

There exists a pressing need for better facilities in the way of digests and analyses of laws, ordinances and administrative acts. At present the collection of this material is haphazard in the extreme, and follows no settled plan. How do we learn about the laws of the various states or the ordinances of our many cities? Only by writing personally in the main, thus duplicating effort and obtaining incomplete results in many cases. In the reporting of legal decisions, the whole process is admirably organized, and the practicing lawver finds on his desk in very short time all of the very latest cases. But not so the unfortunate student of commission government, or the primary system, or the development of the budget. He must find his material as best he can, relying on scattered agencies and supplementing their activities with his own. Crop reporting has been reduced to an art and the latest information obtained by highly skilled observers, scouring a thousand fields, is wired at once around the world. If one-tenth of the amount spent on crop reporting were expended on information about the great crop of political facts, how fortunate we should consider ourselves. But in the case of the lawver's decisions and of the grain prospects there is a direct commercial motive, while in the case of political information there is no such direct result in sight. what tremendous possibilities are involved in the accurate observation of the outcome of human experiments such as are now going on in many parts of our country and of the world.

Not only does this observation apply to the gathering of laws and official acts, but still more to the observation of political phenomena. For this purpose a staff of well-trained observers, with objective point of view, keen insight and balanced judgment, is needed, in order that the student may receive their reports and from them glean the tendencies and directions of the phenomena of the day; and learn also of the general laws and principles involved in these processes. The failure to do this field-work—to collect these facts at the time the events occur—is one of the very weakest spots in the present-day organ-

ization of political inquiry. While scientific expeditions are being equipped to cover all parts of the world and for all sorts of objects, the tremendous human experiment of democracy going on before our very eyes is not subjected to any process of scientific observation at all adequate to the needs of the occasion, and to the scientific possibilities in the case. It is imperatively necessary to find funds for this purpose, if intelligence is to play its proper rôle in the conduct of human affairs.

But there are questions of political research that go deeper down than the personal equipment of the investigator, important as that is, or the inadequacy of the fact-collecting machinery, defective as that may be. To what extent are we advancing in the technique of inquiry? Are we progressing in range of observation, in accuracy of observation, and are we moving in the direction of scientific inference and deduction from the observations made? Professor Robinson has raised the question why Aristotle's natural science is so far out of date while his social science is still quoted with some respect. Is this due, he asks, to the fact that Aristotle in his social science so far outstripped natural science that the latter is just now catching up, or is it due to the fact that we have not progressed as rapidly as might be in the field of social sciences? He inclines to the latter answer.

Politics to a great extent has been the rationalization of group disciplines, prejudices, hopes, depending from time to time on the vicissitudes of the group. Latterly, politics has become more historical and descriptive in character, but still deeply tinged with the propaganda of the writer's favored group. The complicated relations of politics and of the social sciences have thus far baffled the efforts of the investigators to reach the inner secrets, which mother nature in so many other cases has been obliged to yield, unwillingly it seemed, to the relentless pursuit of tireless investigators.

Is politics making use of all the advances in human intelligence which the social or natural sciences have brought into the world in the last few generations? Astronomy, chemistry, physics, biology, and in later days psychology, have made rapid progress—so swift indeed that we are apt to find difficulty in keeping pace with a procession where the fundamental categories of time and space are challenged, and the atom, the ion, the electron, throw the whole material world into a flux where all seemed stable and known. Ethnology, anthropology, social psychology, geography, archaeology, are all busy with their masses of material, with new insights and with new light on human nature.

Politics has need of the eyes of Argus to see all that is happening within or near its own domain. Are we really keeping pace with these new developments? How effectively are we using human intelligence in the struggle to direct the common affars of our swift-rushing world. It may be questioned whether knowledge of juristic methods alone and of the external forms of government is adequate to cover the case. Aristotle certainly wove the science of his day into his political think-If we go back to John Locke, the great apostle of the English Revolution, whose doctrines to a large extent are still the foundation of the political thinking of the Anglo-Saxon peoples, we find that he was a philosopher, an educator, a physician by training, an anthropologist in the sense that he was abreast of the developments of his day, according to Myres in his Influence of Anthropology on the Course of Political Science. With this background, he was able to make an effective interpretation of the political thinking of his time, although the scientific aspects of his work are secondary.

Particularly we may ask whether we are sufficiently in touch with such practical groups of workers as the psychologists and the engineers. It has been said that the country will be governed and the political science written by these groups. If they can improve existing conditions, God speed them. But perhaps we have something to offer them as well as to receive from them. Perhaps in the union of these different disciplines will be found the most fruitful combination. Perhaps from these different elements in successful reorganization will come the political science of the future in which the intelligence of the time may be more successfully applied to the control of our common affairs.

It is worth raising the question whether we are doing all that is possible to keep the social sciences abreast of the rapidly moving times in which we live. In the evolution of science it may well be that exact knowledge of human relations may come last, waiting upon the development of seemingly less intricate relations; but that, if true, would not constitute an adequate reason for lagging too far in the rear. Indeed it is not demonstrable that political behavior is really more complex than the atom, once regarded as simple but now appearing to be a miniature cosmos in itself. A few weeks ago I listened to a discussion by a mathematician in which he outlined the process by means of which a number of scientific discoveries had been made. Some two hundred of these he had traced through, although he did not favor us with all of them. It was a fascinating study of the

application of human intelligence. Of course one science need not and cannot slavishly follow all the methods of another. Mathematics. physics, chemistry, biology, psychology, all work out their own salvation. But important insights and suggestions may often be derived by comparison of various processes of observation and inference. Of special interest and value are the ways in which instruments for precise measurement have been devised by the human intelligence and applied to the needs of the various arts and sciences, thus furnishing comparable data for the use of various students. The microscope, the telescope. the spectroscope, did not spring full-armed from the brain of the first investigator who caught the idea, but on the contrary were the products of long and painful processes of experimentation, often seemingly futile and barren for long periods of time. When something like exact measurement of recurring processes begins, we are on the way to exact knowledge, to scientific verifiable inference. It is natural to inquire to what extent the process has been applied to the study of political behavior.

Possibly it might be useful to survey a generation of political thought and observe what progress has been made during that time. What new discoveries, inventions, improvements in method have been made during the given time? What advances were made in the next preceding period and so on, tracing in detail the evolution of the progress in intelligence in the field of social, or in our case of political, relations. Perhaps a recapitulation or résumé of advances in fact, method and principle, with a forecast of the next steps, might be of value to the professional students of government. At any rate, it would be interesting to see such a survey made for the last thirty and the next preceding thirty years. It might help us to get behind the external framework of government into the vital forces within these forms—the processes which recur without as much variation as appears in the outer forms or shells of political life.

Without attempting to survey the field systematically, of course impossible in the brief limits of this informal discussion, it might be worth while to speak of a few special types of inquiries in the political field.

We might consider the scientific study of citizenship. In one of my courses I have found it useful to inquire into the genesis of political opinions and attitudes, into the circumstances under which they are developed; how they come and how they go. Incidentally it appears that most political opinions are fixed long before students arrive at

the gates of the university, and these opinions are changed or modified only with the greatest difficulty. From one point of view, the teaching of citizenship may be a form of group discipline or propaganda; but it has also its scientific aspects, especially when various groups are compared. We may well ask what are the specific qualities of citizenship which it is proposed to teach; whether there is a standard of "good" citizenship upon which in a given group there is a general agreement. We may ask what are the requisites of citizenship? Do they relate to information, to investigation, to judgment-formation, as to persons and policies: to selfish and social types of reactions? What are the obstacles to "efficient" citizenship? Are they physical, psychical, social or economic? Can these obstructions be located and diagnosed, and can they be measurably trained and controlled? Can scientific politics help at this point by showing the constantly recurring processes by means of which political attitudes and characteristics are determined and how they may be modified? These are points at which the scientific development of political inquiry might be of the very greatest political service, and where the collateral inquiries should add to the store of human information regarding the political characteristics and behavior of mankind.

Among more mature citizens might not a study be made not only of the extent of non-voting, but of the motivation of voting and non-voting; of the characteristics and limits of "political" interests; of the means of developing and controlling such interests? Would it not be of great value in scientific and the practical understanding of the body politic? Can we diagnose the reasons why twenty-nine of fifty-four million adult American citizens did not vote at the last presidential election? And if so, can we prescribe anything that will help the patient?

In a much larger field would it not be possible with the aid of the psychologist to ascertain with some degree of accuracy the political and social characteristics of the several nationalistic groups? What is an Englishman, a Japanese, a German, a Frenchman, an Italian, an American, politically? Are there characteristic differences which are measurable? Are there broader differences which are measurable? Are there broader differences between individuals within these groups than between the groups themselves? How far are these attitudes or characteristics or predispositions in the nature of biological inheritances, and how far are they handed down by the groups as part of the training and education of the members of the group? To what

extent if any, are these qualities capable of modification and control and by what means? These are subjects of fascinating interest and also of fundamental importance to human welfare in our time. What has politics to say on these vital facts which underly the diplomacy and war of our time and of all times? What have we to say of the possibilities of enthroning intelligence where hatred, prejudice and passion now hold sway? Would it not be worth while for students of politics to set in motion a course of inquiry which technicians of other groups might perhaps be called upon to complete, or to cover with us in a large spirit of coöperation?

In these scattering and informal remarks I have covered a variety of topics in a fragmentary way, throwing out suggestions as becomes a puzzled searcher for truth, rather than presenting conclusions. permit me to emphasize again the chief points I had hoped to develop. namely: the significance of the adequate equipment of the professional research man; the grave necessity of constant revision of our methods and processes; the desirability of more intimate coöperation with other social sciences and with the physical sciences; and finally, the urgent need of going back of external forms and descriptions to the recurring processes of politics, whose sequence we may some day hope to calculate and measure more accurately than we have thus far been able to do: the desirability of minute, thorough, patient, intensive studies of the detail of political phenomena, by many devoted investigators who will supplement keen observation with shrewd inference and open the way to a deeper and more scientific understanding of political relations.

CHARLES E. MERRIAM.

University of Chicago.