by Pizzarro's men as they staked out their cavalry in the chaparral on their first night ashore.

Besides its use in settling boundary disputes, the map has provided underpinning for field expeditions. It was in amazingly wide use in wartime and was ready for the emergency because the Society had the forethought to begin it long before the anticipated need arose.

I will not apologize for our interest in its use in wartime, however much we prefer the instruments and arts of peace. It is no small thing to contribute to success at arms when the objects in view are honor and freedom in a world that, only four short years ago, was all but lost to dishonor and slavery. It is through freedom tempered by discipline that the finest social gifts of civilization have come. Through freedom in America we have made a unique contribution to education, in the promotion of which this map and its large accessory activities have given direct impetus. Men who make contributions to freedom through the ages tend the eternal light of a universal humanity, and they ask no recognition except understanding, by those who come after, that their candles may be lit at the same altar.

If the Map of Hispanic America were not a part of all of these things, it would not have deserved 25 years of work by a devoted staff of compilers, draftsmen, cataloguers and geographers, as well as collaborators and friends. Nor would it have justified the cost, for money abstracted from use today is money with a curse on it if it be not returned to human use tomorrow.

Congratulatory Address

Spruille Braden

Assistant Secretary of State, Washington, D.C.

E DO NOT KNOW how the present efforts of government to cope with our daily problems may appear to future generations. Of this, however, I am certain: the completion of the Millionth Map, under the direction of the American Geographical Society, will in the long perspective be regarded as a great constructive achievement. Concluded in the midst of international chaos, it represents the indomitable determination of men to know and to master the world in which they live. It represents the forces of civilization advancing in spite of high barriers. It will stand as a permanent monument to the spirit of man. . . .

Having lived a good portion of my life among the peoples of the other American republics, for whom I acquired the deepest respect and affection, this map of their countries has a special meaning for me. Out of infinite detail honestly assembled and plotted, your Society has here set down a record of geographical realities. So those of us who have been privileged to dwell with the peoples of those countries have in our hearts and minds an appreciation of their rich culture and of their human values. For my part, I treasure the experience and am guided by it.

This Millionth Map, whose conclusion we are here to celebrate, represents a great cooperative undertaking. It is the product of active and constructive collaboration by scientific institutions, by government bureaus, by industrial organizations, and by individuals throughout the American republics. The moral is clear. Progress, the enlargement of knowledge, the achievement of human security, all call for the constructive and determined collaboration of nations, of organizations, of individuals everywhere. We do not live alone, and we cannot succeed alone.

Just as it is impossible for one man alone to make such a great map as this, so it is impossible for one single element in the nation alone to bring about relations of lasting friendship with the people of another nation. That, too, can come only from the countless threads of individual and collective association, woven together in an intimacy that brings warmth into human relationships.

That is the kind of foreign relations which we, the United States, desire to have. We cannot have it except as we respect ourselves and our obligations, at the same time respecting others and their rights in the same fashion that we expect them to respect us and our rights. We must seek to understand them as we hope they will understand us. We must never forget that intolerance begets intolerance, and that if we wish tolerance from others, we must first nourish it in ourselves. In these ways we shall gain friends and benefit ourselves by helping others. The guiding principle, in these matters, must always be reciprocity. That is the root of all friendship.

As a former mining engineer who has roamed in the Andes and through the jungles of South America, I can appreciate, not only the vastness of the cooperative undertaking represented by the Millionth Map, but the dangers that had to be faced in gathering the requisite information. You geographers will probably recall what Plutarch said of your far-distant predecessors—that they crowded into the outer edges of their maps the parts of the world about which they knew nothing, merely adding a note: "What lies beyond is sandy deserts full of wild beasts," or "blind marsh," or "Scythian cold," or "frozen sea." Now, in order to give the world the 107 sheets of this map, you geographers have adventured into "what lies beyond." At the cost of personal peril and hardship, you have gone out into the unknown and vanquished and charted it. I find no legendary deserts, "full of wild beasts," in the margins of *this* map!

I say I am not altogether unfamiliar with the kind of difficulties that confronted those who gathered the data for this map. To illustrate these from personal experience, I vividly recall one exploration camp, Sulfatos, 15,000 feet up in the Chilean Andes, where 31 years ago more than half of our 200 workers, my superintendent, and I were all snow-blind at the same time. We were beset by blizzards, snow slides, and every impediment possible to our work. Five of our men went insane in three months.

I know, too, that the hardships of the jungle are equally great. There are accounts of how an entire regiment was eaten up by the tropical forest, except for two men who finally emerged on the other side of the continent. Even today, in the Catatumbo Jungle of Colombia, there are wild Indians, the Motolones, hunting with bow and arrow, who every year attack and sometimes kill workers at oil-producing operations there—and this occurs, so to speak, just over the hill from modern cities displaying an advanced civilization. These conditions form part of the picture behind the 107 sheets and add glory to the achievement.

If I allow myself to speak from experience of the practical difficulties that were overcome, I think I can allow myself to speak with still greater assurance, from personal experience, of the practical consequences that must follow the making of this map. "Morality," said Herbert Spencer, "knows nothing of geographical boundaries." However that may be, practical statesmanship-as Dr. Bowman can well testifyis confronted by geographical boundaries at every turn of the road. During the three years of negotiating to put an end to warfare in the Chaco, one of the greatest obstacles we faced was the lack of any adequate maps. The most accurate of the maps on which we had to depend was as much as 60 kilometers out in some places. I recall the occasion when we mediators received from one of the parties to the dispute three or four maps we had not seen before. We mentioned this to the representative of the other party, who promptly replied: "Oh, if it's maps you want, I'll give you plenty." Within the week, we had received 150 maps, all of them different! In point of fact, the settlement in the Chaco was influenced by the natural features of the terrain, since we set the final boundary in such a way that 130 kilometers of desert, completely arid, would serve as a natural barrier to reinforce it.

The practical point I make here, however, is that, had accurate and authoritative maps been available in the past, one cause of international misunderstanding in this hemisphere might have been eliminated, thereby reducing loss of life and all the other horrors of warfare.

The lack of good maps has been behind many disputes in the Western World, although I am informed that there are still about a dozen instances in this hemisphere of boundaries that remain undelimited or at least undemarcated. This, thanks in great part to the geographers, is a rapidly disappearing cause of international differences.

Such differences breed fears and suspicions that are always likely to become exaggerated out of all proportion. If there is one thing I learned from the protracted negotiations of the Chaco settlement, it is that mutual fear and suspicion between contiguous countries, especially when their armies are facing each other at close quarters, make war all but inevitable.

The development of transportation and communications has now brought all the continents and countries of the earth into close quarters, facing one another, armed with weapons of hitherto unimagined range and destructive power. To ignore any source whatsoever of fear and suspicion, under such circumstances, would be to court catastrophe. Now the principal, I may almost say the universal, source of fear and suspicion is simple ignorance. Therefore, it is imperative that statesmen see to it that the vast areas of ignorance still existing in the world-the "sandy deserts full of wild beasts"-be transformed into areas of knowledge. They must plot every river and stream, every contour in the landscape of international relations. They must achieve detailed, accurate, and comprehensive knowledge based on the scientific approach exemplified by the cartographers. Responsibility for the spread of knowledge falls on every nation, but especially on such a power as the United States, with its vast resources.

We, the United States, are committed by our basic principles and by international agreements not to use our power to subvert human freedom or human rights anywhere. On the contrary, we must use all the influence that our power gives us to encourage human freedom and promote respect for the basic rights of man in the world. This attitude is nowhere more clearly illustrated than in our conduct under the Good Neighbor Policy and its corollary policy of nonintervention.

In respect particularly of the policy of nonintervention, we are and must be especially sensitive. No one will particularly fear the intervention of the small and the weak, but the very fact of great size and strength arouses fear of what might happen should we be tempted to resort to intervention. To illustrate how careful we must be, I quote the following pertinent statement by Mr. Sumner Welles, which occurs in his The time for decision: "The United States recognition," writes Mr. Welles, "of a new government which comes into being through extraconstitutional methods in some other American republic is generally interpreted in the rest of the hemisphere as an indication of approval of the policies and composition of the regime. There is consequently implicit in the act itself under existing conditions at least a suggestion of intervention."

It must be quite evident to anyone who has dealt with these problems that nonintervention cannot be negative either in concept or in practice. It is affirmative and positive by the very nature of things, since whatever we refrain from doing and whatever we refrain from saying may constitute intervention to the same degree as anything we actually do or say. We can dishonor our commitments to the cause of human freedom and to the principle of nonintervention equally by inaction as by action. If this were not so, then nonintervention would be a means for defeating the cause of freedom and encouraging the growth of tyranny. Surely this is not what is meant by nonintervention! I say we must be especially sensitive, in view of our great power, to our obligation of nonintervention. We must lean backwards. But we must lean backwards for the purpose of avoiding intervention by action and by inaction alike.

The problem we face is not how to avoid using our power. We cannot possibly avoid using it, for it weighs in the balance just as much even when we do not deliberately apply it or when we deliberately seek to avoid applying it. Not to use our power may be, in actuality, to *misuse* our power. The danger is equally great. To my mind the conclusion is inescapable that if a nation has great power, as we have it in abundance, it cannot shun the obligation to exercise commensurate leadership.

Leadership, exercised positively by us on behalf of human rights, is an obligation we must accept. Our own freedoms, our own way of life, our own democratic form of government, all depend on it. As you cartographers prepare your maps, scientifically and with infinite pains, so must our statesmen chart the course which leads to peace in the world, to human security, and to the permanent realization by mankind of its noblest aspirations. To do this, we must replace ignorance by knowledge. Whatever the difficulties and perils, we must prepare a millionth map of statesmanship to guide us in every field of international endeavor-social, economic, and political. In short, by emulating the splendid work of this great institution, the American Geographical Society, we can march forward to meet the future with confidence.

Scanning Science-

The suggestion has been made that in our large cities skiagraphic institutions should be erected and equipped, to which physicians or surgeons could send patients, and where, under their direction, pictures of the desired portion of the body could be prepared, just as a physician now writes a prescription which is sent to the druggist to be compounded. Our large hospitals where numerous accident cases are brought should have in the near future a plant sufficient to prepare skiagraphic reproductions at short notice. Dr. Selle and Dr. Neuhauss have exhibited in Berlin colored photographs which have attracted much attention. They are said to be taken by the method used by Mr. Joly of Dublin, three specially prepared plates appropriate for green, red and blue lights respectively being used. The process has been simplified and the time of exposure shortened. Mr. Frederick Ives exhibited before the Royal Photographic Society of London, on February 25th, his stereopticon showing colored pictures.

-6 March 1896