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THE SCOTTISH GEOGRAPHICAL MAGAZINE.

RIVER-FRONTIERS IN EUROPE.¹

By Professor L. W. LYDE, M.A.

(*With Sketch-Maps.*)

At the recent meeting of the British Association in Newcastle, Sir Thomas Holdich, our greatest expert in frontier-demarcation, in a paper on "Political Boundaries,"² expressed some surprise that a more careful consideration had not been given long ago to the principles which should govern the delimiting of political boundaries, and which should themselves be based on such factors as are most efficient in the preservation of peace. The charm of much of his language, especially about mountains, and the characteristic courtesy with which he treated opponents, no doubt helped largely in making his position persuasive to his audience; but that position, as suggested by this surprise, was essentially military, and reminded one that much of his demarcation work had been done on ground which he had fought over in his early days. He was really criticising a political line from the point of view of a young captain of Engineers on very arduous, active service.

As a matter of fact, if war is more or less a normal state for man, and if a political frontier is really a military feature in disguise, then there is nothing surprising in the absence of a body of political principles to guide delimitation officers. But, if war is not a normal condition,—though a dangerous condition into which man occasionally is entrapped—then the surprising thing is that the accepted theory of frontiers is essentially—instead of only partially—a military one. One knows only too well how boundary disputes do stir up an almost incomprehensible

¹ The three sketch-maps which accompany this article are reproduced, with a slight change in Fig. 2, from Prof. Lyde's *Some Frontiers of To-Morrow: an Aspiration for Europe*. London: A. and C. Black, 1915.

² Cf. this *Magazine*, p. 497.

intensity of feeling *on the spot*; and that is an obvious reason for not leaving their settlement in the hands of the purely *local* authorities, although full regard must be paid to the representations made by such authorities. In the same way, though full regard should be paid to the representations of military authorities on a proposed frontier line, the line should be chosen by political authorities and without regard solely to the military bias.

This does not mean that we are to have recourse to reckless plebiscites, nor that any sane person believes that we are within sight of some great regeneration of humanity. But it does mean that the true principle of democracy is sufficiently mature to demand that boundaries between "nations" should make for peace as well as for security. The two things are far from being the same. No doubt, in the past the conditions of political life have left only a choice of evils; and the lesser evil was to choose a feature which would minimise causes and chances of friction by entirely preventing contact. Sir Thomas carries this principle to its logical conclusion in asserting that the absolute physical barrier of a great mountain system is "incomparably the best." That is to say, the essential object of statesmanship in the delimitation of a political frontier is not to effect an international equilibrium across it, but to make any international intercourse—peaceful or otherwise—impossible!

By "equilibrium" here, of course, one does not mean the complete equalising of the whole power of the opposing states, *e.g.* Belgium and Germany, so as to reduce them to a condition of mutual paralysis so far as hostilities are concerned; but even this desirable result might be reached in the case of states that were strictly comparable in size and strength, *e.g.* Belgium and Holland. Indeed, the relations of these two states illustrate admirably the essential point. For, in the light of history, one can only admit that it is rather typically Dutch—in "slimness" and shortsightedness—to refuse to dredge the *Maas* from Venlo to Visé sufficiently to allow the busy traffic on the *Meuse* above Visé direct access by the lower river to the ocean. But one may fairly claim that it is quite preposterous that a Dutch enclave on the Belgian bank of the Scheldt estuary should prevent the Belgians, in time of war, from succouring their own great harbour of Antwerp. Nor are the results confined to the river itself; for the presence of a German submarine base at Zeebrugge is the direct sequel to the presence of the Dutch enclave in Flanders. International "equilibrium" here demands the purchase¹ by the Allies, as a gift to Belgium, of this Dutch enclave, so that the international frontier might be moved to the fairway of the estuary. Similar considerations, of course, demand the restoration to Holland of the territory over which Germany has encroached on both sides of the Rhine below Wesel and on both sides of the Vechte below Nordhorn. (See suggested frontier alteration on Fig. 1.)

Now the fundamental reason for the necessary remaking of political frontiers in Europe in the immediate future is precisely that certain political units which violate every reasonable ethical and ethnical

¹ The Naval Powers bought up the Dutch toll-rights on the Scheldt in 1863.

principle, and have been able to do so because of their own military strength and the political impotence of other Powers, have recently been attempting at once to improve their strategic position and to extend

FIG. 1.—Western Frontiers.

---- Present Frontiers. Proposed changes.

their political domination. Moreover, they have done this in an area about which we have a very large amount of accurate geographical knowledge, including thoroughly scientific maps; and we are able to judge the various geographical features on their own merits. For even between states that are not comparable in size and strength, we may

effect an equilibrium—the equilibrium of equal local advantages with regard to the particular feature used for a frontier, an equilibrium of economic and strategic facilities that depend entirely on the local conditions; and the arrangement which guarantees this, will favour the wider equilibrium of political peace and common humanity.

This at once suggests the extreme desirability of choosing a feature which *combines* different kinds of advantages, and guarantees peoples meeting easily in times of peace and yet having a real security against attack in war. That is to say, we have the opportunity of combining a strong and definite physical fence with the best of all aids to the peaceful meeting of the peoples on opposite sides of that fence.

And this, for our age and outlook, is surely an ideal. For the frontier of to-morrow cannot be merely a national feature, enclosing and isolating a nation of recluses; it is to be essentially an *international* feature, effecting some approach to equilibrium. It must, therefore, satisfy certain conditions—in character and in influence; it must have geographical attributes which can serve political ends.

In the first place, it should be obvious and indisputable—if only to save expenses of demarcation; and the history of the relations between *e.g.*, New South Wales and Victoria, or Chile and Argentina, proves the importance of this, especially the difficulty and expense of obtaining such a line in mountainous country. The history of the Australian dispute—fully and admirably told by Mr. I. C. Ogier in the *Victorian Geographical Journal* for 1912, vol. 29—is most instructive. It is perhaps a misuse of language to call the Murray a navigable river; there is the old “chestnut” about the unfortunate Chinaman who was fined £100 because a sudden change in the river’s course had put him into Victoria! But it was—significantly—not the Murray that caused the dispute in question. The same is true of the Plate. Its great components have been the political frontiers of the area since—as well as during—the days of the Spanish viceroys; they are guilty of what one speaker at the Newcastle meeting thought a fatal objection to river-frontiers—*i.e.* changing their channels, and do it often every day for weeks together; and actual war, of the deadliest kind, has been waged in the basin. But in no single instance has the river frontier caused friction. In times of revolution, *e.g.* in Paraguay, rebels have crossed the river, but in no case has international friction been the result. The waterway, in spite of all its vagaries, has remained the obvious, the indisputable, the permanent frontier.

Contrast this with the other great frontier of the Argentine, especially in the light of Sir Thomas’s own eloquent description of his ideal frontier—a range of gigantic mountains.

“It may happen that they stand alone, untouched for miles by artificial designs, as great and impassable border lands, in the midst of which the boundary follows the great divides, majestic, unapproachable, immovable, subject to no vicissitudes of natural force short of violent earthquakes, requiring no artificial boundary marks for definition, no ridiculous waste of money over demarcation, no expenditure in boundary upkeep, presenting on either hand a magnificent wall of defence, unbroken, impressive, defiant.”

Written by a man who has demarcated a frontier within sight of such scenery, it is convincing. But it would be a misuse of words to call such a feature a political *frontier*, and Sir Thomas did not: he only called it "an amazing natural *boundary*"; and there can be no question that such a boundary prevents even peaceful intercourse across it. Yet somewhere there ought to be a continuous line where, *e.g.*, British territory merges in Russian; and the day will come when such a line will cause dispute—because it is disputable. A patch of metal-bearing alkaline earth would at once raise the question of ownership. Where the barrier is not so overwhelming, and even the water-parting may be vague and "misplaced," as in the Southern Andes, the difficulty of adopting a mountain frontier¹ is almost insuperable. It is only a dozen years since Sir Thomas completed his remarkable work on the Chile-Argentine frontier; the award was accepted absolutely by both governments, and both have tried to carry it out with conspicuous honesty and good faith. Yet, through the courtesy of Mr. Ernest Gibson of Los Yngleses—to whom I am indebted for much accurate information about the conditions on the spot—I have direct evidence of the great anxiety felt by both governments about the constantly growing friction along the line of the award. No doubt, Latin America is liable to marked instability in its political arrangements; but, that being the case, it is surely all the more remarkable that the Plate—above the estuary—has been a frontier for nearly four hundred years, that it supplies to-day nearly 2000 miles of frontier to Paraguay, Brazil, Uruguay, and Argentina, and that it has never been a cause of political friction, though it has been the great thoroughfare of the region.

And this is just what we want. For a political frontier, as an international feature, should be no check on peaceful intercourse, while a very great check on unpeaceful intercourse. No doubt, in one sense, mountains, deserts, and swamps are little or no check on peaceful intercourse, because there is little or no intercourse of any kind across them; but we want much more than this, even granting that this "in one sense" is not a mere quibble. For civilisation is progress in the art of living together, and it is long now since the world became an economic unit: the price of a bar of chocolate or a Christmas orange assured us of that even in the days of our youth. We want, therefore, a feature which actually encourages peaceful international intercourse, and it will be readily admitted that in this respect the navigable river stands easily first, involving a maximum of peaceful associations. It is a feature on and along which men do naturally congregate in peaceful occupations, and where even the most discordant elements can show only a minimum tendency towards discord. Indeed, it is obviously the most important, the most universal, the most permanent, of all such features. On the contrary, men do not naturally meet in their normal occupations on mountain crests or water-partings, in deserts or swamps. In a navigable river, then, we have a feature encouraging a maximum of peaceful tendencies.

¹ Mr. Heawood has recently reminded me of the relative importance attached by the early Spanish governors in South America to rivers and mountains, "Es de notar que el paso de un río ofreció mas obstaculos que el atravesio de la áspera Cordillera."

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catalogue—Sareth and Styr, Shchara and Niemen, Viliya and Dvina, etc. Of course, the riverine marshes were of vital importance during the whole retreat; but it is *not* to the marshy sections of the rivers that I wish specially to refer. The really significant sections were those which were *not* marshy, and—because not marshy—had parallel railways behind them, *e.g.*, the Bug south of Brest-Litovsk, the Vistula south-east of Ivangorod (north-west of it the banks are marshy), the Shemyana north and south of Podbrodze, the Niemen between Mosty and Grodno, or the Rossa north of Volkovisk, etc. These and similar cases have proved that a river backed by rail gives a defensive position of enormous strength; and this is all the more remarkable when one remembers that the lines referred to run for miles within range of fire from the opposite bank, running, *e.g.*, for 30 miles within 3500 yards of the Shemyana, for 30 miles within 5000 yards of the Bug, etc. But, of course, the railway support is the essential factor, and the preference of commercial railways for such riverine ground needs no proof.

All things taken into consideration, it is even possible that such a rail-backed river is a stronger defensive position than any normal mountain range that is crossable at all, and that is even crossed by rail at one or more isolated points. But there is no question that, even if the mountain range is the stronger defensive position, it is *not much* stronger, while it is infinitely inferior to the river for all other purposes. Certainly, the normal mountain range is steeper on one side than the other, thus favouring the nation holding the gentler slope, and that nation might be—as Austria has been—the aggressive one; it is also normally developed in arc-form, so that transverse routes, whether good or bad, converge on the steeper side, as routes from Austria converge on Italy. Want of equilibrium here depends entirely on the geographical feature, and in no way on the relative strength of Italy and Austria.

But, as Sir Thomas pointed out, it is precisely ranges and water-partings that have been adopted hitherto for international boundaries in Europe; and, as a matter of fact, in this war—like deserts and seas to some extent—they have proved completely inadequate as a defence. In the face of recent events then, one must offer respectful admiration to the courage of those who recommend the continuance of a system which has helped to involve us in such misery and disaster; and one may perhaps venture to suggest, as an alternative, the adoption of a navigable river as the most appropriate feature for a frontier wherever there is such a river “in the neighbourhood.” Such rivers are already great commercial media, adverse to isolation and exclusiveness, and favourable to the elimination of cultural and linguistic barriers between riparian peoples. Further, a navigable river is the easiest natural line of access inland for outside ideas, and along it international tendencies must be—and are—relatively strong. Comparison of South America with Africa, south of the equator, is sufficient proof of this; but more to the point for the moment is the absolute equality of all shipping, *e.g.* at Sulina, as of all riparian owners along the Lower Danube. The natural unity of the river valley, so far from being an objection, is a positive advantage. We *want* the two nations to be unified in all except

political allegiance; and the similarity of geographic control, with the accompanying similarity of human development, is a net advantage on the side of peace. Further, a political frontier, after all, is the embodiment of a formal contract; and such a conception—as illustrated on the Danube—has much more force with the commercial community which is normal along a navigable river, than with the nomad Highlanders who are the natural occupants of a mountain barrier.

Such arguments as have been brought against the adoption of the river-frontier, are neither convincing nor always well founded. The belief that “there is a tendency in the case of every navigable river to become the exclusive property of the most pushing nation on its banks” finds no support in the Plate, or the St. Lawrence, or the Lower Danube; and the whole frontier policy of Imperial Rome was based on precisely the converse. Here, again, the Plate is convincing. The Argentine is very much the strongest, largest, richest, and most populous State along it; and the city of Buenos Aires is much the most influential user of the river. Yet careful inquiries have failed to produce any kind of evidence that the State or the city has exercised, or is exercising, any such domination. No differential treatment of any kind is common—I have not been able to hear even of an isolated case; and no friction has actually occurred.

Again, the military dangers which have been suggested in connection with such a frontier, seem very flimsy in the light of the official correspondence about the closing of the Drifts on the Vaal,¹ though, of course, the Vaal is no more than the Murray a navigable river. And the assertion that rivers are not chosen as administrative boundaries is certainly not founded on political or historical maps, *e.g.*, of England, France, the United States.

In adopting a navigable river, however, we might meet what Sir Thomas Holdich considers so important, the desirability of having an actual space boundary between the opposing nations. For the desirable “buffer” can be secured by extending the idea of the Danubian Commission and making the fairway of the river international—under an International Commission, national rights being only riparian. This would provide a neutral traffic zone (free to all alike) similar to those already established even on land in various places, *e.g.*, between France and Italy, France and Switzerland, Mexico and the United States. These zones, so far from causing difficulty in administration, have been most successful, even along the Rio Grande, eliminating smuggling and greatly favouring normal trade. Of course, they supply an admirable object lesson in the value of keeping trade really “free”; and where such a river, though still navigable, became too narrow for such an international zone, the influence of the zone lower down the river would unquestionably affect the higher reaches.

But in discussing such a subject to-day, we all have at the back of our minds certain facts—facts of much abused nationalities, of scientific savagery, of dishonoured scraps of paper; and we are intensely anxious to find a settlement—to be embodied in a new scheme of frontiers—which will make a repetition of evils practically impossible. Now the

¹ *Imperial Blue-book*, C. 8474.

means to do ill deeds that led to these ill deeds being done were—coal, iron, and potash; and the distribution of these commodities in Germany has a vital bearing on our problem. One of the much abused nationalities is in Alsace-Lorraine; and the advance of the French frontier to the Rhine would not only put an end to "Zabernism," but would cripple

FIG. 3.—Eastern Frontiers.

---- Present Frontiers.

.... Proposed changes.

Germany's power for evil in the west. In the year before the outbreak of war Germany obtained 21,000,000 out of a total of 28,600,000 tons of iron ore from Lorraine; in Alsace there is one of the great fields of potash which have given Germany more or less a chemical monopoly; and between the iron and the potash is the Saar coalfield, supplying 7 per cent. of the total German output of coal. To restore this area to

France would completely cripple the German steel industry, and would instantly break the German monopoly in the supply of potash, *i.e.*, the base of calico-printing, dyeing, explosives, etc.—the Alsace deposits being much richer in sylvite (practically pure potassium chloride) than the deposits elsewhere in Germany. These deposits have been the sheet anchor of German agriculture and the German chemical industry, as the Lorraine iron ore has been the sheet anchor of German metallurgy.

What has happened in Posen, in the story of crass brutality, is less well known than what has happened in Alsace; but in many ways the treatment of the Poles has been even worse than that of the Alsatians. If the Upper Oder becomes the new frontier of Germany, it will involve the loss of what is probably the most important coalfield in Europe—though at present it supplies only 25 per cent. of the German total—the richest zinc field in the world, and very valuable deposits of iron and lead. Thus, again, in the east, Germany's power for evil would be crippled. (See Fig. 3.)

No doubt, the crafty National Kartel scheme, which has been entrusted to Dr. Streisemann, as organiser, and Herr Georg Münch, as intelligencer, is devised to compensate partially for even such momentous changes—but not unless the German mercantile marine is *not* compelled to make good every ton of Allied shipping which has been sunk by German submarines. And this is a matter on which we have some confidence in asserting—*pace* the political pundits—that the Allied nations have already made up their minds.

This particular matter is strictly pertinent to the real objective of our discussion—the choice of geographical features that are favourable to *International equilibrium*. Before the war Germany had only two rivals in the ocean-carrying trade, Norway in the smaller branches and Britain in the larger; and the Select Committee of the House of Commons on Shipping (1901-1902) collected conclusive proof that there was no trick too despicable for Germany to use in its efforts to injure its two rivals. The present outburst of destructive brutality at sea is only the obvious sequel—the supreme and final effort to eliminate competition by decimating the mercantile marine of these two rivals; and the whole principle of international equilibrium sanctions, and even demands, what will be really a statesmanlike restitution of equilibrium.

It would seem necessary, therefore, to extend our idea of frontiers as factors in international equilibrium so as to include the question of economic equilibrium. For there can be no proper political balance of power while there is gross monopoly of such economic media of equilibrium—between comparable states—as the mineral bases of industry in peace and in war; and it is a matter of no moment whether such monopoly is due to the deliberate adoption of scientific savagery and the calculated violation of international law and custom by interested parties or to the criminal ignorance and sentimental stupidity of third parties who sanctioned the particular frontier.

But even with this extension of our idea a further precaution is necessary: it is to discountenance absolutely any such delimitation of frontier between comparable states as would give either of them an

excuse or an opportunity for making a sudden attack on the mineral bases of the other, as Germany did in 1914 on the mineral fields of France. And here again the river frontier has a distinct value. No one pretends for a moment that the waterway ever makes a mathematical bisection of its basin; but it is indisputable that it does hold generally a fairly even balance between those lateral features which at once "contain" the basin and are so often rich in mineral wealth.

Obviously, then, in the delimiting of frontiers to-morrow the question of defence cannot be confined entirely or even mainly to purely military considerations, for other considerations are far more important. Amongst these others by no means the least important are those of a purely economic character. Now the whole purpose or proper work of Economic Geography is to envisage the world as a unit, with each human type—farmer or miner, mountaineer or seaman, Japanese or Belgian—in its proper place and contributing its special item to the common good. And just as, physically, we have natural regions—major and minor—with their natural products, so we have, politically, natural groups—large or small—with a natural community of sentiment, racial or otherwise. Each natural group is a natural nation or nationality, and has more or less natural limits of distribution; and where these occur in the neighbourhood of a navigable river, that river should be made the political frontier between the two units, each sharing the river basin, as it shares the comity of Europe. The insistence on physical barriers and purely military frontiers denies alike the fundamental economic unity of the world and the dawning political comity of Man, and sanctions the discredited superstition that there is something permanent and sacred in the accidents of power and in the heritage of an unscrupulous dynasty. The river frontier cements the economic unity, and ignores dynastic legacies based on the delusion that a river basin must always be an appropriate political unit; its acceptance implies full recognition that the growth of "nationality" means the rise of democracy; and its ultimate victory will displace to-day's flabby and maudlin cosmopolitanism in favour of that true internationalism of to-morrow which will be simply a stable condition of friendly relations between patriotic and coherent democracies.

If the new map of Europe is based on purely military lines, Europe will have to expiate it—once more—on purely military lines.

THE NEWCASTLE MEETING OF THE BRITISH ASSOCIATION.

THE British Association met once again this year under the shadow of war, a shadow even deeper than last year if one may judge from the attendance, which fell to 826. This was, however, perhaps partly accounted for by the fact that the opening of the meeting coincided with a three days' holiday, which was somewhat unexpectedly declared throughout the district, and no doubt diminished the number of local