U. S. DEPARTMENT OF LABOR
BUREAU OF IMMIGRATION

Exhibit "D"

ARTIFICIAL BARRIERS TO PREVENT SMUGGLING

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As long as restrictions are imposed upon the importation or entry of articles or persons, attempts at smuggling will be made. Artificial barriers, if properly constructed, with the adjunct of a sufficient number of officers and quick transportation, would hold smuggling to an inconsequential minimum, and would deter thousands of aliens from attempting illegal entry into the United States. The additional revenue from an increased volume of dutiable articles--principally live stock--forced through authorized channels should assist materially to defray the cost of erecting a barrier and keeping it in good repair. The savings from decreased court costs, incarceration and deportation expenses, should more than equal the difference. We would have also the ideal condition of officers working to prevent crime instead of competing to make a record of apprehensions after the offenses have been committed.

Representatives of all branches of the Government engaged in enforcing border crossing laws and regulations want such a barrier and for years have advocated its erection. In 1924 the Mexican Government and our Government, through both sections of the International Boundary Commission, tentatively agreed upon the erection of a joint fence around Cordova Island and San Elizario Island, socalled, both east of El Paso. Neither of these is really an island. Cordova Island, with a border line of three and a half miles, is a parcel of land north of the Rio Grande, left on the American side of the river by changes in its course, but still belonging to Mexico. San Elizario Island, having a border line of twenty miles, is land of the United States left south of the river by the shifting channel. Both Governments appropriated money for their share of the project but before arrangements for building the fence had been completed the appropriations lapsed and apparently were not renewed.

An artificial barrier on the international boundary line is not an untried experiment. Years ago the War Department built several miles of wire fences in Arizona, extending for some distance both east and west of Douglas, Naco, Nogales and other towns. The Agricultural Department has a cattle fence extending about thirteen miles east of Douglas. These fences have proven of inestimable value to the officers of this Service in causing the aliens and smugglers to go further from town; the potential law

violators are deprived of refuge in the huts and shacks so frequently found on the international line close to a town; they are forced into the open where the officers have a correspondingly better chance to apprehend them. The customs officers at Douglas find the cattle fence so helpful that they voluntarily keep it repaired.

It is too much to expect that funds will be forthcoming to build a wall of adobe, stone, or concrete for the length of the international boundary or for any considerable portion of it. The cost of any such wall staggers the imagination.

We must then consider fences, and it is believed that the most satisfactory one for our purpose would be what is generally known as a cyclone fence,-composed of a 2" mesh #9 wire which is of very substantial thickness, attached to 2" galvanized iron posts set in concrete, the fence being 7 or 8 feet in height, with a 3 or 4 strand barbed wire overlap. Such a fence ranges in price from $5000.00 to $6500.00 a mile and is well worth the money to one needing it and able to pay the price. It is hard to cut; access under it is almost impossible; climbing over it is difficult and hazardous.

It is useless to consider cedar posts; in a region where firewood is scarce they would rapidly disappear. The iron posts soon work out of the light soil unless imbedded in cement.

There are officers in the Immigration Border Patrol whose experience with barbed wire entanglements entitles them to be regarded as experts. Some of them favor the following: A double fence with a 10-foot space between; the fence nearest Mexico to be 10 feet high with a 3-foot extension on top tilted to an angle of 135°; the inner fence to be 6 feet high with a similar extension at the top; barbed wire to be used, the strands to be 8" apart; the posts to be of 2" cast iron, set 10 feet apart, each in a concrete base; the space between the two fences to be used for the placing, in a loose and irregular manner, of 10 strands of barbed wire, to entangle those who succeed in passing by the first fence. It is estimated that the total cost of the double fence, including barbed wire at $15 a mile length in wholesale lots, cement and labor, would be approximately $4,150 a mile.

The foregoing types of fence are the ideal. A much less expensive fence would be of great value to the officers in smuggling prevention work. A single barbed wire fence, 8 feet in height, similar to the double barbed wire fence, but without the overlap, would cost approximately $2,000 a mile. It is useless to hope that any sort of fence for our purpose can be erected at much less than that figure.

In planning for an international line fence consideration should be given to the possibility and advisability of electrifying it for signalling devices. That can not be done with metal posts, unless insulated, for the reason that they will break the circuit and deflect the current into the ground. A fence for use in signalling, to be 8 feet high, with posts of re-inforced concrete and barbed wire, could be erected at a minimum cost of $2800 a mile.

Signalling devices might be effective for a distance of 40 or 50 miles in either direction, with one central receiving station, by means of a high direct current voltage and insulated wire, and through the use of what might be called "detectors", to determine approximately where the contact or break occurs; but manifestly it is not feasible to insulate the wire for that purpose.

A 5 mile stretch is about all that could be handled in one section for a signalling device. For that distance there would be required a 20-volt storage battery, costing about $15, a switching device, $10, an indicating device, $25, and a buried cable leading from the end of the fence to the patrol station, which should be nearby. It is possible to arrange the signalling device so as to indicate within which one of five sections the contact or break is made.

A contact registering in the patrol station would be made only by the cutting of a wire or the pressing of two wires together. Within a short time the smugglers would learn that fact and if the officers, instead of guarding the line, should remain in the patrol station waiting for signals, the smugglers would circumvent them by using light ladders.

The best results from the use of electricity would come from charging the wires to shock those who might come in contact with them. This would be done by giving the wires a static charge, of high potential voltage with a watless current, analagous to a charge condenser, made possible by the fact that the metal in barbed wire has a very high resistance. The fence could be so heavily charged as to shock any one walking close to it; a person would be rendered helpless before he could cut or climb it, and yet would not be electrocuted or even seriously injured. In order to avoid justifiable complaints the fence would be charged only at night when no one would have legitimate business in that vicinity. It would be necessary to obtain the current from a commercial plant, but the cost for that sort of use would be almost negligible.

Should the use of electricity for shock purposes be barred, the objection might be raised that with the expenditure of time and patience a person could climb over either of the 8-foot fences,

and that it would not be difficult to cut. True! But with the officers in waiting, the aliens and smugglers generally will not face an obstacle of that sort. They must be in a position to make a quick dash for cover, where they can hide from the officers, and rather than stop to negotiate a fence they will go further where there is a better prospect of a clear field. This has been proven at the Arizona points where fences have been maintained.

Occasionally the fences would be cut. Officers could be sent out each morning to discover the breaks, and either repair them or lay in wait for further arrivals at those points. It is doubted that a law making it a crime to cut, otherwise mutilate or destroy the proposed international fence would have any noticeable effect in preventing acts of vandalism against it. Such acts would be committed by those effecting illegal entry or bringing in contraband. If caught north of the line they are subject to prosecution anyhow. In any event the existing laws as to the destruction or mutilation of government property probably would apply to the government's fences.

From El Paso to the Gulf there is a river line of approximately 1300 miles; from El Paso to the Pacific Ocean there is a land boundary of about 700 miles. For the entire 2,000 miles the approximate cost of the several types of fence herein described would range from $4,000,000 to $13,000,000. But natural barriers of deep water, mountains and desert make it unnecessary and even futile to fence the entire border. For example, the Rio Grande flows through a canyon known as the "Little Grand Canyon", a stretch of fourteen miles with sheer walls a half mile in height; in many places the river cannot be forded; there are many miles of desert country that cannot easily or safely be traversed, as the region of white sands between Yuma and Calexico.

The program of the International Boundary Commission contemplates a rectification of the Rio Grande's channel for seventy five miles east of El Paso, to Box Canyon; a river bed 500 feet wide; both banks to consist of levees averaging 6 feet in height. In order to eliminate line fences the American section of the International Boundary Commission is willing to construct the American levee with the inside or river wall perpendicular so it cannot be scaled. It is proposed to use a drag on top of the levee from time to time to prevent the growth of underbrush which might obstruct the view. It would be necessary for the officers to watch only the occasional breaks or slopes which will provide access to the river bed for dredging purposes. The plans of the International Boundary Commission as to the seventy five miles of river indicated may materialize within the near future. If the plans prove successful the Commission probably will endeavor to handle an additional 500 miles of the river in the same way. Many years will elapse before that is done.

For the purpose of preventing smuggling, it is advisable to fence the border line only at those places most frequently used by the aliens and smugglers--what the officers call "hot spots"--for a few miles on either side of a town or settlement. Three hundred miles would suffice on the Mexican Border, at a minimum cost of $600,000.00. We do not insist on the three hundred miles. We will appreciate the fencing of any so-called "hot spot". El Paso is one of the biggest centers of smuggling activities on the Mexican Border. Officers in a position to know predict a heavy decrease in smuggling of all sort at El Paso and vicinity with not more than seven miles of international line fence, placed as follows: 3-½ miles at Cordova Island; 1-½ miles along the river in the so-called "stand-pipes" section; 2 miles in the hills opposite the smelter. For the results possible to obtain, the most expensive fence, at a cost of $45,500, would be amply justified; the fence at $14,000 would be a bargain.

There is a question whether this country should act separately or jointly with Mexico in constructing an international line fence. Where the center of the river is the boundary, Mexico could not well be a party to the erection of a fence north of the river. Aside from that there would be too many problems arising from joint ownership and administration to make such advisable.

An international line fence could not be constructed without legal and other obstacles, principally growing out of the need of a right of way. Some of the border land in Arizona and New Mexico is public domain; some is not. The Federal Government has never owned any land in Texas except such as it purchased for public buildings, military reservations, etc. In New Mexico and Arizona most of the border land needed would be cheerfully donated by ranchers who would welcome a fence to keep their stock from straying into Mexico, and that would make it more difficult for Mexican bandits to prey upon them. In Texas the farmers would bitterly oppose the building of a fence that would prevent their stock from getting water and that would make it difficult for cheap labor from the other side to reach their farms. Although the official records do not so indicate it is an open secret that the objections of the farmers on San Elizario Island delayed negotiations for the joint fence proposed in 1924 until the appropriations of the two Governments lapsed, the farmers holding title to the land on which the fence was to be erected. The cheap labor from Mexico steps across an imaginary line onto the farms where work awaits them; the farmers naturally desire to maintain a "good thing".

The fence would have to be built a sufficient distance from the line to be out of reach of the flood waters. The amount of land to be acquired through condemnation proceedings would be in excess of the actual needs, and would render the price almost prohibitive. There is reason to believe that permission can be

obtained from the owners to fence most of the so-called "hot spots" that need to be so isolated at this time.

Because of the frequent revolutions in Mexico and the use of the United States as a base of operations by the revolutionists, it would seem that an international line fence is almost a military necessity. Certainly it would make difficult the smuggling of arms and ammunition from this country into Mexico, would discourage the passage of armed bands from the northern to the southern Republic, and perhaps stop the revolters from fleeing to our country for refuge when the battle goes against them.

The foregoing paper prepared for reading at Conference of district heads held at Immigration Bureau, Washington, D. C., commencing December 3, 1929.