41.—PAST AND FUTURE OF THE FUR SEAL.

BY JOSEPH STANLEY-BROWN.

There are but two groups of fur seals to furnish to the world its supply of seal skins, the fur seal of the north and the fur seal of the south.

When Sir Francis Drake circumnavigated the globe in 1577-80 the Arctocephalus, or southern fur seal, was to be found at not less than thirty localities, and their numbers aggegated millions. To day the contributions of these southern waters are from three resorts, and do not usually reach 15,000 skins annually.

When Vitus Bering, in 1741, was wrecked upon the Commander Islands, off the coast of Kamchatka, and Pribilof searched out, in 1786-87, the group of islands in Bering Sea that bears his name, there were discovered, not only the chief breedinggrounds of the northern fur seal, *Callorhinus ursinus*, but some of the most superb seal rookeries the world has ever known. It is questionable if mortal vision ever rested upon more magnificent displays of amphibian life than were to be seen on the island of St. Paul at the time of its discovery. To day these subarctic resorts are prostrate; their glory also has departed, and they furnish a home for but a mere remnant of the seals that formerly swarmed in myriads along their rocky shores.

For two years the hopes of thoughtful persons were high, that through the medium of international negotiations and the deliberations of wise and able men the safety of the fur seal would be at last secured. To-day, when the decision of the Paris tribunal is common property, we find public opinion divided on the question as to whether the practical application of the decision will preserve the fur seal as a commercial commodity.

Characteristics of the seal.—The condition of affairs thus briefly outlined is all the more deplorable when we consider the characteristics of the animal with which we are dealing. It is a creature peculiarly adapted by its habits to man's management. It occupies no territory needed, as were the buffalo's feeding-grounds, for the subsistence of more valuable domestic animals; no herders are required to prevent its being lost in the wastes of the ocean, and no expense is incurred either to protect it from the inclemency of the weather or to provide a winter food supply; yet with more certainty than the ranchman's flocks and herds seek the home range do the seals annually return to their breeding-grounds where, under proper management, they can without injury to the parent stock be made to yield a profit equal to if not greater than that derived from the cattle of the plains or the sheep of the mountains.

The southern fur seal and its destruction.—Despite these characteristics, which must have been apparent to the most ignorant and unobservant, what has been the course of events? Turning first to the fur seal of the south we find that as early as 690 some

little interest was manifested in its capture, but it was not until the close of the last century that the pursuit was begun in earnest. Hardy mariners, stimulated by the hope of sharing in the profits of the fur trade which the Russians had developed with the Chinese, searched out the resorts of the southern fur seal; ravaged them year after year, in season and out of season; slaughtered the helpless creatures with clubs on land regardless of age or sex; gathered a harvest of sixteen or seventeen million skins, and by 1830 had practically destroyed, in the southern seas, this valuable fur-bearing animal. If all these resorts were in their original condition and under wise and prudent direction, they could easily supply to the fur trade annually something like half a million skins, with corresponding advantage to an army of skilled artisans. As it is, indiscriminate butchery has left only the Lobos Islands rookeries at the mouth of the La Plata River and a few insignificant resorts at Cape Horn and the Cape of Good Hope, the total yearly yield of which is, as before stated, less than 15,000 skins. Such destruction is left absolutely without justification in the face of man's entire ability to maintain the fur-seal rookeries at the highest possible limits permitted by the operation of nature's restrictions, or when depleted to develop them again. This is not idle speculation, but rests upon a firm foundation of fact furnished by the history of the fur seal of the north.

The northern fur seal and its relation to the sealskin industry.—The two great resorts of the northern fur seal are the Pribilof and Commander islands in Bering Sea. Robbens Reef, a rocky islet in the Okhotsk Sea, has a small rookery, and a few localities of minor importance are found along the Kurile Islands. While the Russians who first discovered these resorts prohibited all interference from outsiders, their own treatment of the seals was similar to that practiced by the sailors in the south. No attention was paid to sex, season, or period of procreation, and it was not long before the end came there just as it had done in the south. The Russians were taught by this severe lesson that the only way in which the rookeries could be restored and perpetuated was to protect the females from death and the breeding-grounds from molestation. This course, accompanied by practically a suspension of killing during certain years, was rigidly adhered to with the result that when the rookeries of the Pribilof Islands were turned over to the United States in 1867 their condition, instead of being one of exhaustion, approximated that which existed when they were first The truth of this will be more apparent when it is stated that in 1868, discovered. before the United States could assume and exercise control over its newly acquired possessions, nearly a quarter of a million skins were improperly taken from the islands of St. Paul and St. George by unauthorized persons without apparently producing any diminution of the numbers which came the following year.

Although there are but four of these northern localities, and Russian mismanagement from time to time played such havoc with them that the catch was an uncertain quantity, still they have contributed since their discovery between 5,000,000 and 6,000,000 skins to the fur trade, or about one-third as many as have been furnished by the southern resorts. From the time that the fur seal of the south ceased to be of commercial importance trade has relied upon these rookeries. Thanks to the more enlightened policy employed by the Russians, and adopted and improved upon by the United States, these rookeries of Bering Sea contributed to commerce for the twenty years ending with 1889 a uniform yearly quota of nearly 150,000 pelts, which formed the basis of and made possible the systematized sealskin business of

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modern times. As a raw commodity they sold for an average of \$2,500,000 at the annual London trade sales, and the Pribilof quota yielded the Government of the United States in revenue more than the \$7,200,000 originally paid for the entire Territory of Alaska. The value of raw sealskins is now represented by about \$15 for skins taken at sea and \$30 for Pribilof skins. At the present revenue rate, if it were now possible to take from the Pribilof Islands the former yearly quota, the Government income would be nearly \$1,000,000 annually.

Importance of the sealskin industry.—The sealskin industry is of no slight importance and its proportions are but roughly indicated by the first profit on the raw skins. These peltries must be gathered in remote regions; they form part of the transportation business of railroad and steamship lines; coopers must make casks for their shipment; they must pass through the hands of many laborers before they reach the 40 buyers in London who purchase them, and the 2,000 skilled artisans who convert them into fabrics suited to the use of trade; and when all this is done there must still be stores maintained and clerks employed in order that they may find their way to the wealthy consumers. The labor incident to the taking, transporting, manipulating, and disposing of these peltries demands the employment of thousands of persons each year, and when we recall the prices paid for these skins when converted into the garments dictated by fashion, it will readily be seen that it is an industry the ultimate value of which is represented by millions of dollars annually. Above all it is a peculiarly worthy industry, in that it gives occupation to many, while the profits come from the purses of those best able to pay them.

Cause of the destruction of the northern fur seal.—Some ten years ago there was put in operation on the American side of the Pacific ocean an agency of destruction, the growth of which, if uninterrupted, promised to prove as effective as did the sailors' clubs upon the southern resorts. Its promise has been generously kept, and from its deadly though partially controlled effects the rookeries are now suffering. That agency was pelagic sealing, or the taking of seals at sea by means of weapons. The source of the injury is the indiscriminate killing. Whether this is practiced on land, as in the south, or at sea, as in the north, the outcome is the same. No animal which produces but a single offspring each year can long survive an attack which involves the death of the producing class, the females. I am aware that there is another side to this question, and that two great nations point each a finger at the other and say: "You did it." The subject-matter of that contention is only germane to such a paper as this in so far as it touches upon the career of the seal, and only to that extent will it be referred to.

England and Canada hold the theory (which, in justice to them, should be stated) that the decline of the northern rookeries was due to excessive killing on the islands, pelagic sealing being a factor of only secondary importance. If this theory meant that after pelagic sealing had made serious inroads upon the seal herds it was excessive killing to continue taking the annual quota of 100,000 skins, it would be a sound one, and the United States would be culpable to that extent, but England and Canada would not accept this limitation; they want it to account for much more. They fail, however, to sustain their theory until they show by clearest proof that the decline of the rookeries began prior to the development of pelagic sealing, and also get rid of the awkward fact that for the first twelve or fifteen years there was no difficulty in securing the annual quota allowed by law. Why did this alleged decadence

through excessive killing on land take so long to manifest itself? Certainly the evils of indiscrimination is not inherent in land killing; on the contrary, selection can be exercised at the rookeries as readily as it can be at the abattoir, and there is no more necessity for molesting the females than there would be for a farmer to ship all of his herd to Kansas City and have the selection of the killable males made at the stock yards. The briefest recital of the facts of seal life will make this plain.

The facts of seal life.—The northern fur seals, unlike their southern relatives, are forced each year by Arctic cold and the necessity for food to leave their homes on the approach of winter and to seek the southern waters, and the abundant fish supply along the continental shores. The migration routes of the Alaskan and Asiatic herds do not coalesce, nor do the seals intermingle. Late in April or early in May, depending upon the character of the season, the breeding males, bulls, or "seecatchie," first return to their resorts from this migration. About a month later the mature females or "matkie" begin to seek the breeding grounds, and between the time of arrival of these two classes the young males or "hollustchikie" are swimming in the water near the rookery fronts or hauling out upon the hauling grounds some distance away from the areas occupied by the mature seals. The young males are not permitted to gather upon the breeding-grounds until, by reason of age and strength, they are able to maintain a position there.

Each old bull when he arrives in the spring selects and maintains, often by desperate combat, a little area upon which he hopes to establish his household. The male weighs four or five times as much as his consort, and, as is usually the case where the male preponderates in size, they are extremely polygamous. Their vitality and virility is almost beyond belief. For eighty or ninety days, while they are making secure their position, and while guarding and presiding over their families, or "harems," they are debarred from both food and water. When the season of propagation is past they again betake themselves to the sea, and the breeding-grounds are given up to the intermingling of young males, females, and pups, but during that eighty or ninety days the immature males from one to five years of age have been compelled to consort together upon the hauling-grounds, and thus there is given an opportunity without in any way interfering with the course of events upon the breeding-grounds, to drive away, select, and slaughter such of these young males as will furnish desirable pelts. These are the only skins shipped from the islands.

Can anyone successfully maintain that in the case of polygamous animals the taking of the surplus male life and reserving the females can destroy the herd? If this can be demonstrated, then our stock raisers are at fault, and the evidence derived from Russian management goes for naught.

The facts of pelagic sealing.—Before the breath of life can be breathed into this theory of decadence through excessive killing on the islands there must be removed from the record books certain well-established facts concerning pelagic sealing. It will be necessary to dispose of the fact that while in 1878 there was but 1 vessel engaged in pelagic sealing, the number steadily increased until in 1892 there were 122 to follow on the migration tracks of the herds, to harry them eight monthsout of the twelve, and, if permitted, to accompany them to and even upon their chosen resorts. There must also be a successful refutation of the fact that there is a loss of at least 10 per cent inherent in the methods of taking seals at sea; that pelagic sealing strikes at the very life of the rookeries, by killing 75 or 80 per cent of the females, more than half of which are

mothers whose death involves that of their unborn offspring; and that the period of gestation being nearly twelve months, a mother killed in Bering Sea means that three seal lives may pay the penalty.

It is equally important to the maintenance of this theory that there be an elimination of the fact that during the four seasons, ending with the past one of 1893, there were taken on the Pribilof Islands only a total of 50,000 skins of young males, while during that same period there were actually marketed by the sealers over 200,000 skins, which represented only about half the injury done the seal herds, an injury falling heaviest upon the producing class, the females. For four years there has been practically a closed time on these islands, and pelagic sealing has had full swing in the North Pacific. The rookeries have not improved under these conditions, and until the records of the real cause of destruction stand impeached it is idle to offer obscure and improbable explanations for the present condition of seal life.

It has only been profitable to follow this question of the cause of the decadence to indicate what might be expected from pelagic sealing. Whenever and to whatever extent carried on, its deadly effects are certain and continuous, the amount of injury being limited only by the magnitude of the enterprise. Improprieties on land can be guarded against, but the disastrous consequences of pelagic sealing are inherent to the business and are beyond man's control. They can be lessened, but only through the curtailment of the number of seals taken. The injurious effect upon the herd, while proportionately less, remains a constant factor.

In following the career of an animal possessing such capacity for self-perpetuation and ready adaptability to the uses of man, the student of natural history or of economics is struck by the wanton and needless destruction which pursues it wherever found. As to its future he turns, for what comfort he may be able to extract, to the decision of that court of recent if not last resort—the Paris tribunal of arbitration.

The Paris tribunal of arbitration .- The causes which led to the arbitration are known to all. For some years the Alaskan fur-seal, when on its migration route, had been the eagerly sought quarry of the pelagic hunters. This route, which by reason of its vast extent and proximity to inhabited shores makes this herd especially vulnerable to attack, extends from the Pribilof Islands southward through the passes of the Aleutian chain, expands in the broad Pacific, but ultimately brings the seals in more compact masses to the North American coast, and thence along its shores, back through the passes, to the Pribilof Islands again. Realizing the peril of the rookeries, the Government of the United States attempted to partially protect them by seizing sealing schooners in Bering Sea. Each year it was thought that at least so far as these waters were concerned the danger would cease, but each year it increased as the vessels multiplied and the skill and knowledge of the sealers became greater and was ultimately extended to the Asiatic herd which frequents the Russian or Commander Islands. The continued seizing of schooners by the United States met with remonstrances on the part of Canada and England, and finally, after much irritation and heat, became the subject of diplomatic negotiations, the peaceful outcome of which was the Paris tribunal of arbitration.

Three duties were intrusted to the tribunal of arbitration: It was to settle certain jurisdictional questions, to decide the question of property rights, and in the event of the matter being left in such shape that the concurrence of Great Britain

was necessary to establish regulations for the purpose of protecting and preserving the fur-seal, it was to frame such regulations as would be applicable outside of the jurisdiction of the respective governments and to indicate the non-territorial waters over which these regulations should extend. As it is not important in this connection to consider the jurisdictional phases of the case there will be taken up at once the property question and the regulations—the two points that immediately concern us; the former from the standpoint of general interest, and the latter by reason of their intimate relation to the future of the seals.

The American position.—The able representatives of the United States took the position that the tribunal was bound by no precedents, and possessed, by virtue of its very origin, a creative as well as a judicial function. They urged upon the tribunal the taking of high ground and the settlement of the question upon broad and comprehensive principles. They pointed out that man, by means of invention, was rapidly extending his dominion over the water, as he had over the land, and, by employing methods which were not even dreamed of when many existing municipal and international laws were enacted, threatened the very existence of many creatures useful to man. Turning from the citations of voluminous authorities vindicating the justness of their claim of property right in the seals and in the industry, they pleaded with sturdy argument and great eloquence that the tribunal would fail of its high duty did it not lend its aid to such an extension of the world's idea of property right as was needed to meet the demands of the advancing age. They asked that the narrow ground be not taken that this great tribunal was called into existence solely for the purpose of settling a dispute between two nations, but that it was given an opportunity, and was vested with the power, to make a substantial contribution to international law, and that its verdict, while disposing of the immediate matter in dispute, should be such a formulation, upon broader lines, of our conception of rights of property and of protection as would be of value to all mankind, irrespective of nations. They pointed out that the material progress of the world was based upon the fundamental principle of ownership, and that the most effective way of preventing the commercial annihilation of certain great groups of creatures was by lodging in the nation best qualified by its geographic position to protect them a custodianship, to be exercised over them for the benefit of all. It was shown that the adoption of this principle would dispose of the question of the relation of other governments to the subject; would make possible the rehabilitation of many of the seal rookeries of the south; that it would protect such industries as the coral and pearl fisheries, and that it would be useful in controlling the rapid inroads man's ingenuity is now making on the denizens of the sea. In short, that it would be a direct, useful, and common-sense way of settling the whole matter.

The British position.—With equal skill of argument and eloquence of address the advocates of Great Britain and Canada held that the tribunal possessed but one function—that its duty was to declare the law and not to make it; but that, whatever its function might be as an international body, it was not vested with the power to make international law, but must keep to the straight and narrow way of settling a contention between two nations and adjusting two conflicting methods of catching seals. They asked that the tribunal provide for the continuation of pelagic sealing under the most favorable conditions consistent with carrying out the terms of the treaty. True, nothing was said in the treaty about preserving the business of pelagic

sealing, but before so patient and generous a court it was not difficult to confuse the issue of preserving the seals and continuing pelagic sealing and to take up a large share of the proceedings with pleadings in behalf of the latter. They demanded that the question of property right be settled from the standpoint that the seals were wild animals, which man could only reduce to possession by destroying. They insisted that the law relating to wild animals, regardless of its origin, had been accepted by nations as the years ran on; it was very old law and very good law; but, whether good or bad, it was the law, and from its teachings the tribunal must not allow itself to be enticed away by the seductive citations and insidious arguments of learned counsel on the other side. There must be no making of laws to suit new conditions; the old stand-bys They urged that the seals being wild must be adhered to, whether applicable or not. animals, the United States had done nothing to encourage or develop in them the animum revertendi-the inclination to return to their homes, as in the case of bees and similar creatures-and thus had lost their claim to a property in them, and if the world or a part of it desired to turn out in boats and to destroy the industry by shooting the seals in the water they had a perfect right to do so, for a wild animal was free to No matter if seal mothers roaming the sea for food did fall before the gun or all. spear of the pelagic hunter and their helpless pups starve on the rookeries, the hand of destruction must not be stayed, for the United States had no rights anyone was bound legally to respect when the seals were three miles off shore, and humanitarian considerations had no place in the controversy. They insisted that the tribunal had no authority in law to declare a property right in the seals or in the industry, but if the tribunal contemplated disregarding the law and settling this question on lines of their own choosing they must refrain from doing so, because it would interfere with that wonderful invention, the immemorial right on the high seas, an interference nations not only would not brook, but which they would actively resent.

The tribunal's decision.—The tribunal, true to the conservatism of the Old World, accepted this interpretation of their powers, recognized the potency of venerable legal relics, assented to the arguments of the counsel for Great Britain and Canada based thereon, and contented itself with deciding that the United States had no right of protection or property in the fur-seals.

The regulations.—The next task to which the tribunal addressed itself, was the framing of regulations. These regulations furnish the last hope for the preservation of the fur-seal as a commercial commodity. It is not probable that any other nations having seal interests will be content with less than the United States secured, nor is it likely they will obtain more, and thus they represent the measure of protection all seals are likely to receive in the future.

After listening to an enormous mass of testimony, some good, some bad, and some very indifferent, concerning seal life, the tribunal proposes to preserve the Alaskan branch of the northern fur-seal by prohibiting sealing within a zone of 60 miles around the Pribilof Islands; by establishing a closed time, or time of no killing at sea, from May 1 to July 31; by permitting only sailing vessels to engage in the business of seal hunting, and requiring them to carry a distinctive flag, to take out a special license, and to keep a daily record of the catch and the sex of the seals taken, these records to be communicated to each of the two governments at the close of the sealing season; by limiting the weapons of capture to shotguns in the North Pacific and spears in Bering Sea; and by requiring the two governments to take such measures as will

determine whether the hunters are fit to handle with sufficient skill the weapons by means of which the seals are to be captured. These regulations, which are to remain in force until they have been in whole or in part abolished or modified by common agreement between the Government of the United States and Great Britain, are to be submitted every five years to a new examination, so as to enable both governments to consider whether, in the light of past experience, there is occasion for any modification of them.

The three prime points in the regulations are: the zone around the islands; the closed time of three months injected into the middle of the sealing season, thus breaking it up; and the restriction of the use of firearms to the North Pacific.

First as to the zone: If there was any one fact clearly established by the testimony of the pelagic sealers themselves and official experts it was that in the summer season great numbers of seals, and especially females, are found at long distances from the islands of Bering Sea, distances two or three times greater than that of the protecting zone provided by the regulations. Now, as the object was to preserve the fur seals, it is proper to assume that the tribunal, prompted by a desire to protect them, and acting in good faith, established such a zone as they believed would practically prohibit the attack of the pelagic sealer; but if this were so, then mere amount of distance was immaterial, and in view of the fact that incessant fogs brood over the waters of Bering Sea during the summer season, rendering it difficult to tell when a vessel is within or without a zone, the limit of which can not be marked, why not at once adopt that natural and well-defined boundary line, the Aleutian chain? Just here arises the question: When vessels are seized, whose word shall be accepted as to the locality of seizure, the pelagic sealer's or the seizing officer's? Does not this uncertainty, having as it does an important bearing on the question of conviction. weaken the regulations restraining influence on pelagic sealing? Aside from questions of protection it seems to me that this part of the decision will tend to increase dispute and bitterness rather than to diminish it.

The adoption of the closed time means the recognition on the part of the tribunal that the destruction by the pelagic sealer has been excessive and the cutting off of one month of the sealing season in Bering Sea clearly shows that it realized the danger to the herd from allowing sealing there. Why, then, was sealing not prohibited altogether in those waters? Is the danger less in August and a portion of September? The seals are still going long distances from the islands and the sealer can continue his work until stopped by the September gales. Bering Sea is the focal point, the great massing ground of seal life, and the seals are more readily taken there than anywhere else. In 1891 the catch of the Canadian fleet in the North Pacific was a little over 21,000 seals, and before the modus vivendi could be enforced a portion of the fleet sealed from three to five weeks on the American side of Bering Sea. and with fewer vessels and with fewer small boats they took in that time as many seals as they had previously secured in the Pacific. During the three years ending with and including 1891 the Canadian fleet (and I only quote from Canadian records, because they are so reliable) took, in five months, in the North Pacific, an average of 567 skins per vessel; with ten vessels less, they took in Bering Sea 727 skins per vessel in about two and one-half months.

The proposed regulations still allow at least five weeks' sealing in Bering Sea; but, say the regulations, the hunters can only use spears in Bering Sea, thereby inti-

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mating that spears are less effective than the shotguns allowed in the North Pacific, and that an additional safeguard has therefore been provided in Bering Sea. Just why the shotgun is pernicious in Bering Sea and is not in the North Pacific is not indicated; but if we turn to the testimony of the Northwest coast Indians, who ship on the schooners and accompany them to Bering Sea, we find that they claim that they can do better work with the spear than with the shotgun. The latter makes the game wild, while the former does not. The spear makes no noise, and they are thus able to take seal after seal as they sleep on the water, and get all in sight, while at the sound of a gun's discharge the comrades of the captured or wounded seal swim away.

It is evident from an inspection of these regulations as a whole that the Tribunal, taking into account the interests of both nations, endeavored to frame measures which, while protecting the seals, would permit the continuation of pelagic sealing. This seems to me a task the accomplishment of which is an impossibility. The evils of pelagic sealing appear to have been clearly recognized by the Tribunal, but instead of adopting prohibitive measures it took the middle course of throwing some protection around the seals and while at the same time appearing to concede something to the pelagic sealers, made the conditions just sufficiently hard as to prevent them from engaging successfully in the business. It is admitted that these regulations possess value in limiting and discouraging pelagic sealing, but their inherent weakness is that, while they now seem to possess some deterring power, changed conditions may at any time arise which will negative their influence and offer inducements sufficient to enable the sealers to again engage in this business on a large and injurious scale. This contingency is not so remote as may appear at first sight. In 1889 the average price paid in Victoria for skins taken at sea was \$6.83; in 1890 it had risen to \$10.70; in 1891 it was \$15. In 1889 the cost of each skin in wages was from \$2 to \$3; in 1890 and 1891 it was \$3.50; in 1892 it was \$4. In other words an advancing price for both master and hunter.

Now, it is evident that it will be some time before the Pribilof Islands can very greatly increase their annual output of skins. The maximum output of the Commander Islands has been reached and probably will have to be decreased in the future. There must be through these regulations some curtailment of the contribution of the sealing schooners, and the result of all this will be that sealskins will demand a higher price. Should that price reach a figure which will compensate for the obstacles which the regulations place in the way of the pelagic sealer, then we will have the changed conditions referred to, and pelagic sealing with its attendant evils will go on as before. If there is doubt in the minds of anyone upon this point it is only necessary to turn to the history of the sea otter, which though nearly exterminated, is as eagerly sought after to-day as it ever was, simply because the ever-increasing price the trade is willing to pay for its skin still compensates for the small numbers now taken. There is no reason to believe that the career of the fur seal will be different from that of the sea otter.

Another possible source of changed conditions lies in the regulations themselves, for they provide, as we have seen, for their own modification every five years, and the pressure will come heaviest from the pelagic sealers' side of the case. Indeed the regulations require that each pelagic sealer—an interested party—shall keep records which are to be made available when the question of modifications of the

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regulations arises. Now, while there never was a more fearless and courageous set of men than these pelagic sealers it will be something entirely new in their history if their records do not appeal in the strongest possible terms for a modification of the regulations in their favor.

The final question that arises in regard to these regulations is, will they, as they now stand, ever be put in operation? The interested powers have yet to agree upon measures for giving effect to them. Is it likely that, when a neutral tribunal found the making of regulations so tedious and difficult, the interested powers will be able without interminable delay and possibly irreconcilable conflict to agree upon "concurrent measures" putting them in force? England has won on the great law points of the case, but these regulations are objectionable to Canada, for they bear some what heavily upon pelagic sealing; and these "concurrent measures" offer tempting fighting-ground for securing their modification in favor of the Dominion.

Under the circumstances it is only to be expected that the arts of diplomacy will be vigorously exercised in that direction. There is but one course, however, for the United States to pursue—permit no modifications, stand squarely for the prompt carrying out of these regulations, and let time reveal how much value they possess for protecting the seal herd. England will champion no plan of greater protection; she has all to gain and nothing to lose from delay, and it will require all the energy and firmness of the Executive to put effectively in force the regulations as adopted by the Tribunal.

Conclusions.—After more than two years of close study of this question it is my conviction that the only way in which the world can secure the largest benefit commercially from the fur seal wherever found is by taking the surplus immature males upon land under the most favorable conditions suggested by experience; that securing seals by any other methods introduces the fatal element of indiscrimination; that the life of the herd is jeopardized in proportion to the number of females killed; that the injury inflicted on the northern herds by pelagic sealing increases from January to August, grows greater as Bering Sea is approached, and culminates in those waters; that the shotgun and spear are both deadly, the latter by reason of its noiseless efficiency, the former by reason of its ready use by all classes, and that the disposition of this question on the basis of adjusting two conflicting interests is futile and illogical, but material issues are not alone involved; it presents biologic features as well and has to do with forces of nature beyond man's control.

Regulations can not be framed by human ingenuity which will preserve the seal herds in their greatest possible proportions and permit the continuation of successful pelagic sealing. It would be reconciling the irreconcilable. It would be accomplishing a feat equal to that of making two bodies occupy the same space at the same time. Either the regulations will be prohibitive in their operation—in which case it would be more straightforward to make them so in the first instance—or, if allowing successful pelagic sealing, they will be valueless in preventing the extermination of the seal. In general it may be said that *no* pelagic sealing can be carried on which is not inherently and uncontrollably injurious to the life of the seal herd—the amount of injury being proportionate to the magnitude of the attack.