

RIVER PLATE
NAVIGATION AND SHIPPING

BY

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IN THE ARGENTINE REPUBLIC

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INTRODUCTION

The development of agricultural industry in the Argentine Republic during the last 3 or 4 years has caused a considerable increase in the demand for tonnage from this River.

In former years a limited number of steamers belonging to regular Lines and loading in fixed ports sufficed to convey hither the general cargo which was imported from Europe while sailing vessels were almost exclusively confined to the transport of bulky and less valuable cargoes such as lumber, coal, salt, etc.

The large shipments of wheat now going forward from the River Paraná, as well as from the ports of Buenos Aires and La Plata, have induced a great many Steamship owners to engage their boats in this trade and although import of general cargo from Europe has diminished here of late to such an extent that the regular Liners are more than sufficient for the transport thereof, the establishment at Buenos Aires and La Plata of coal depôts, chiefly for bunkering business, which previous to the formation of ports was exclusively done at Montevideo, has furnished an important element for outward employment both for tramp steamers and for large sailing craft. As many of these owners have no previous experience of this trade, I am constantly receiving enquiries as to port charges and regulations, facilities for loading and discharging, etc., and in view of the fact that the export of

grain will continue to increase yearly and call for fresh tonnage, I have thought that it might interest owners to obtain reliable information about our ports, and in order to make the same more intelligible, I add plans of our principal discharging and loading berths.

As however, changes are being constantly introduced in our system of administration, and we are actually passing through a period of reform in all departments, I foresee that I shall be compelled to revise the present publication, adding new tariffs and decrees, and giving the public the benefit of such remarks as benevolent critics may be good enough to offer.

The Republic of Uruguay

The following lighthouses and lightships are established on the coast and on the Uruguay side of the River Plate:

NAME	DESCRIP- TION	CLASS	LONGITUDE WEST OF GREENWICH		
			Degrees	Minutes	Seconds
Polonio (Castillo).....	Lighthouse	Fixed	53	41	30
Cabo Santa Maria	»	Flash	47	57	30
José Ignacio	»	Fixed	54	42	—
Punta del Este (Waldonado).	»	Flash	55	10	—
Flores Island.....	»	Revolving	55	20	10
English Bank.....	Lightship	Fixed	55	30	—
Punta Brava.....	Lighthouse	»	56	08	—
Cerro (Montevideo)....	»	Revolving	56	18	03
Panela	Lightship	Fixed	56	26	—
Farallon.....	Lighthouse	»	57	57	—
Colonia	»	Revolving	57	20	—

Montevideo

Pilots. — It is not compulsory to take a pilot off the Capes, (the Capes which limit the River Plate are Cape Saint Mary in the Republic of Uruguay and the Cape San Antonio in the Argentine Republic) but if the Captain of a steamer or sailing vessel is in want of a pilot he can easily obtain one cruising off Cape Saint Mary. The fixed charge from the Capes to the anchorage in the outer bay of Montevideo is \$ 5.00 gold per foot of draught, unless masters obtain a reduction by special written agreement before arrival.

The port of Montevideo is divided into two parts, interior and exterior, the former comprising the bay between Point Gounouilhou and the Cibils Dock, and the latter from beyond a line drawn between these points to the outside buoys and within which limits vessels must await the sanitary visit.

If a steamer or sailing vessel has to enter the inner harbour application must be made to the Captain of the port for a local pilot whose services are paid according to the official tariff as below.

The charge for pilotage from Montevideo for steamers and sailing vessels will be found in the section which treats of the Argentine Republic.

Sailing vessels are obliged to take up port pilots. Steamers with packet privileges are not compelled to accept their services, but as a rule avail themselves thereof if they enter the inner port to save responsibility that they might otherwise incur.

The tariff is as follows:

For bringing a vessel to her moorings....	\$ 10.00
» taking » » » an offing.....	» 10.00
» change of anchorage or moorings....	» 5.00
» each day of demurrage or quarantine.	» 2.00

Ships coming from a port in the Republic and remaining in the offing need not take up port pilots, and those which enter or leave the inner port without a pilot on board are fined \$ 20 (double pilotage).

Quarantine.—Steamers proceeding from ports considered infected will save time by first calling at the quarantine station on Flores Island to receive the Health visit and if required land passengers, baggage and mails. Once this operation is performed they may proceed to the outer bay, dropping anchor inside of the most distant buoy, where discharge is effected. Sailing vessels receive the sanitary visit in the port of Montevideo itself.

Fumigation.—Disinfectants are supplied in time of quarantine by a government contractor, who has the monopoly of this service, at a cost of \$ 8 gold per steamer and \$ 4 gold per sailing vessels.

Sanitary guard.—Steamers undergoing quarantine must receive on board two sanitary guards; sailing vessels embark only one. These guards remain on board during the whole period of quarantine and are entitled to a daily pay of \$ 2 gold be the vessel steamer or sailer, and \$ 3 gold if a decease has occurred on board.

If the vessel leave in quarantine for Buenos Aires the guards continue the voyage in the ships and their return passage must be defrayed by the vessels.

Besides the above, sanitary guards must be embarked on board of tenders visiting ships in quarantine and are paid as follows :

For hailing ship.....	\$ 1.00
Giving entry or exchanging papers.....	> 1.50
With disinfection.....	> 2.00

Depth of port.—In the outer bay there are from 25 to 30 feet and in the inner bay 16 to 20 feet of water according to the

Tide, which is not regular but depends on the prevailing wind.

Condition of bottom.—The bottom of the port is soft mud affording safe holding ground both for steamers and sailing vessels provided with any kind of anchors except in the case of very strong gales when certain precautions should be taken.

Repairs of damages.— May conveniently be made in the Mauá Dock situated at the Southern part of the town and in the Cibils Dock at the Cerro.

The dimensions of the latter are: Length of 1st section 195 ft. = 59.40 metres and of 2nd section. 255 ft. = 77.71 m. Total length 450. ft. = 137.16 m. Width between entrance posts 55. ft. = 16.76 m. and at end 40 ft. = 12.19 m. Depth of water at high tide 24 ft. = 7.32 m. At low tide 14 ft. = 4.27 m. Although the depth of water in the Dock at high tide is nominally 24 feet this is only obtained in stormy weather when it is difficult for vessels to enter owing to the dangerous nature of the entrance which is bordered by rocks.

The draft at which vessels may enter and leave the Dock with safety during ordinary high tides is 18 feet.

The charges are 20 cents gold per ton register for each day the vessel remains in the Dock, besides an entrance fee varying according to size of ship from 30 cents to one dollar per ton. Repairs for which the docking of vessels is not required, can be made in the port itself as there are good workshops and the services of skilful engineers at all times available.

Coals. — Large quantities of this combustible are always on hand in special depôts with sufficient lighters to take same on board, and bunkering is carried out with great despatch when stormy weather does not interrupt the work. The price is conventional, varying according to circumstances. The present cost of the coal is from 30/—36/ per ton alongside steamers or trimmed into bunkers. Most owners have contracts with the firms of Wilson Sons & Co. Limited, Viuda de A. F. Braga, or W. Evans.

Provisions.—Can be obtained in bond, and certain articles are therefore considerably cheaper than in Buenos Aires.

Ballast. — Stone and sand ballast can always be had in this port and is brought alongside in special lighters at the following cost:

Stone per ton \$ 1.80 gold for steamers \$ 1.60 gold for sailers
Sand » » » 1.00 » » » 0.80 » » »

Water. — Is supplied by means of tankboats which pump it into the steamer's or vessel's tanks at the rate of \$ 2 gold per ton.

Lighterage. — There being no artificial port the unloading and loading of vessels is effected by means of lighters in the bay at the expense of consignees and shippers of cargo respectively, according to the following tariff:

Discharge.

	<u>Outer bay</u>	<u>Inner bay</u>
Per ton of 40 cubic feet or 20 cwt.		
general cargo.....	\$ 1.50	1.00
Per ton of 1,000 kilos, general cargo. »	1.40	1.00
Per cubic metre..... »	1.10	0.80
Timber per 1,000 sup. feet..... »		1.00 to 1.80

Besides the above there are special tariffs for other articles.

Loading.

Bales of wool, hair and sheepskins,		
each.....	\$ 0.50	0.40
Salted ox and cow hides per 1,000... »	45.00	30.00
» horse hides » ... »	25.00	17.00
Bale of jerked beef, each..... »	0.07	0.05
Pipes of tallow..... »	0.90	0.60
Maize, per 1,000 kilos..... »	0.80	0.60
Wheat » » »..... »	0.90	0.65
Dry ox and cow hides, per 1,000.... »	25.00	19.00
Dry horse hides » » »	18.00	13.00
» Paraguayan hides » » »	36.00	34.00
Horns » » »	2.40	
Bones, camp and burnt, per ton..... »	1.80	1.70
Bone-ash..... »	1.50	1.00

For other less important produce of the country, there are special prices, and the above tariff, although agreed upon by the Montevidean lightermen, is subject to modification by special agreement. The lightermen reserve to themselves the right of charging either by weight or measurement.

On packages weighing or measuring more than two tons, a charge of \$ 5 is made for each additional ton besides the corresponding charge for lifting. All merchandise transhipped from ocean-going steamers to river steamers or sailing vessels pays 50 % extra lighterage. Demurrage is charged, according to the capacity of the lighter on all goods which from want of dispatch or delay in storage remain more than 3 days on board the lighters.

Lights.— All steamers or sailing vessels must pay $6\frac{3}{4}$ cents per reg. ton for light dues in the first Uruguayan port touched at, and if bound for the Argentine Republic the dues are $8\frac{3}{4}$ cents per reg. ton, say 2 cents more, the difference being for the Panela and Farallon lights in the direct course to Buenos Aires.

The tariff for each of the lights is as below :

Cape St. Mary	cents 2
Polonio	» 1 $\frac{3}{4}$
José Ignacio	» 1
Punta Brava	» 1
Panela	» 1
Farallon	» 1
Colonia	} together..... » 1
Cerro	
Flores Island	
English Bank	
East Point	

PORT CHARGES.

Steamers.

Light-dues per reg. ton	\$ 0.08. ₇₅ gold
Bill of health	» 4.00 »
Packet-Privileges, not compulsory, but once taken it serves for all voyages..	» 20.00 »
Captain of the port	» 10.00 »
Stamped paper.	» 3 to 10 »
Steam launches, each trip	» 4 » 5 »
Entry at Custom-house, about	» 20 » 30 »
» and clearance ditto, about	» 50.00 »

Pilots, as before stated.

Port-pilots, ditto.

Stevedores, see tariff.

Consular fees, according to tonnage, nationality and destination.

Besides for passenger steamers:

Telegraphic advice from Maldonado . . .	\$ 2.00	gold
» » » Flores Island . . . »	1.00	»
Look out in port »	2.00	»
Gratuity to Custom-house officers »	8 to 10	»

Packet privileges. — Steamers may obtain packet privileges on a single payment of \$20 gold for all time. Such privileges oblige them to carry mails free and give due notice of their sailings and ports of call, but enable them to enter and leave the port without their agents completing the Custom-house formalities until 20 days after departure, also to load and unload at any time during the day or night inclusive of Sundays and Holy days.

Consular «visé».—All vessel bound for a port in the Uruguay Republic must have the «visé» of the Uruguay Consul at port of procedure on the Bill of Health besides the «visé» on the manifest and Bills of Lading if arriving with cargo. Infringements of this rule are punished by a fine of \$ 200 gold.

Masters of all vessels must present themselves at the «Resguardo» (Custom-house Guard Office) within 24 hours after obtaining entry with the Consular manifest of the cargo that he has on board, be it destined for Montevideo or in transit, as well as with crew and store lists. Infringements of this rule are punished by a fine of \$ 200 gold.

Exemption from harbour dues.—Vessels are exempt from port dues when calling at Montevideo under any of the following circumstances, viz:—in distress, for orders, to undergo repairs, to obtain a pilot, coals or provisions, or to change crew,—always provided no passenger or cargo operations are effected.

In the event of vessels arriving at Montevideo for orders, without having been despatched in the Argentine Consulate at port of procedure, they pay in addition to the «visé» on Bill of Health (obligatory for all vessels leaving for the Argentine Republic and costing \$ 4 gold) two cents Argentine gold per ton register for the Argentine Consul's «visé»

on the manifest, and \$2 Argentine gold for each set of three Bills of Lading.

Vessels proceeding from an Argentine port and calling at Montevideo even if it is only to drop the pilot (but always excepted cases of distress) must be provided with the « visé » of the Uruguay Consul on Bill of Health or a fine of \$ 200 gold is imposed, and receive Sanitary visit for which \$ 4 gold is paid. Agents of regular steamers in order to save time send as a rule the visiting officer in a special tender which costs \$ 4 gold.

Vessels proceeding to or from any port in the Argentine Republic may receive or drop pilots at Punta Indio without touching at Montevideo, but masters seldom avail themselves hereof owing to the heavy sea often causing delay and even risk in putting out a boat to convey the pilot from and to the lightship.

Sailing vessels are liable to the same charges as ordinary cargo steamers (as distinguished from passenger steamers) with the exception of \$ 10 gold to the Captain of the Port, but they cannot obtain packet privileges and are consequently not allowed to work before obtaining entry at the Customs or at night. They cannot leave the port until the cargo loaded has been found to be in conformity with the respective manifests.

Expenses of stamped paper.—Instead of the \$3 to 10 for stamped paper paid by steamers, sailing vessels pay as follows:

	VESSELS OF			
	up to 100 tons.	101 T. to 200 T.	201 T. to 500 T.	501 T. and upwards
For first sheet of manifest..	\$ 4.00	\$ 8.00	\$ 15.00	\$ 20.00
» opening register.....	4.00	8.00	15.00	20.00
» closing »	4.00	8.00	15.00	20.00
» additional sheets.....	0.25	0.25	0.25	0.25
Discharge manifest in the second or other Uruguayan port at which vessel tou- ches.....	0.50	1.00	2.00	4.00

	up to 100 tons.	VESSELS OF		
		101 T. to 200 T.	201 T. to 500 T.	501 T. and upwards
Manifest for leaving.....	8.00	8.00	8.00	8.00
Additional sheets if neces- sary.....	8.00	8.00	8.00	8.00
Besides 1 manifest of.....	0.25	0.25	0.25	0.25

For sailing vessels of all sizes:

Entrance with cargo.....	\$ 3.20
Clearance » »	» 4.80
» in ballast.....	» 1.60
» with part cargo.....	» 3.20
» with surplus of cargo and having loaded in the port also.....	» 4.80
Entry or clearance at Customs, about.....	» 10.00
» and » » » »	» 30.00

The preceeding charges are the same in all Uruguayan ports.

The principal ship-brokers make special arrangements with stevedores and I give below the tariff of one of them which will serve as a guidance:

Discharging or loading general cargo per ton weight or measurement.....	\$ 0.24
» » cattle and horses per head..	» 1.00
» » Calves per head.....	» 0.30
» » Sheep » »	» 0.10
Shifting coal, per ton.....	» 0.24
» » Tallow, salted or dry hides per ton of 40 cubic feet or 1000 kilos.....	» 0.24
Extra work per man per day.....	» 2.00
» » » » » night.....	» 4.00
» » » foreman » day.....	» 3.00
» » » » » night.....	» 6.00
Heavy weights from 2 to 5 tons.....	» 1.50
» » » 5 tons and upwards.....	» 5.00

Steamers supplying all necessary gear ; but food for *stevedores* account.

Currency.—The money current in the Republic is the silver dollar, equivalent to £0. 4. 3¹/₁₆ d, but nearly all European and American gold coins are legally current.

Exchange.—On London 90 ^d/_o. 50³/₄—52d.
» » Paris Fr. 5.35—5.42
» » Berlin M. 4.35—4.42

Imports.—The principal imports to Montevideo from Europe are general cargo, comprising manufactured goods. besides machinery, iron, wood, coal, salt, wines, spirits, sugar, tobacco, petroleum, etc.

Exports.—Consist chiefly of pastoral produce such as salted and dry hides, tallow, wool, sheepskins, jerked beef, extract of meat, preserved tongues, bones and bone-ash, live stock, principally mules; lately also small quantities of cereals have been shipped. Montevideo is a convenient port of call for steamers bound for Buenos Aires and most of the regular Liners discharge part cargo there and embark on their homeward voyage small lots of produce for direct ports as London, Liverpool, Hamburg, Bremen, Dunkerque, Havre, Bordeaux, besides Brazilian ports. Sailing vessels also at times load full cargoes, but are chartered more frequently to load in the River Paraná when they do not prefer to proceed to the West Coast for nitrate, etc.

The Coast of the Uruguay Republic is considered dangerous to navigation owing to the shoal water for a long distance out to sea, to the reefs which abound and to the strong gales prevailing principally during the months July to September.

Although the coast is well furnished with lighthouses, it is risky for vessels to hug the land in foggy weather, the currents running strong and unequal.

A large number of steamers and sailing vessels have been

wrecked off these shores at different times but many vessels have also been rescued from perilous situations by timely assistance from Montevideo where powerful tug-boats provided with all requisites for salvage are always ready to proceed at a moment's notice and in all weather to the aid of a ship in danger. The comparatively small proportion of lives lost in the various shipwrecks is mainly due to the efforts of Messrs. Felipe Lussich & Sons of Montevideo, owners of steam-lighters and tugs, who have earned for themselves a well deserved reputation for bravery in saving human life under the most trying circumstances.

The Argentine Republic

According to the existing Custom-house laws, vessels may be despatched direct with cargo or in ballast to the following Argentine ports which possess what are termed first-class Custom-houses: Buenos Aires, La Plata, Bahía Blanca, Chubut.

In the Uruguay River: Gualegüaychú, Concepción del Uruguay, Colon, Concordia, Monte Caseros, Paso de los Libres and Santo Tome.

In the Paraná River: Gualeguay, San Nicolás, Rosario, Santa Fé, Paraná, Goya, Corrientes, Formosa and Posadas.

It is however likely that the Committee now named to revise the Custom-house laws will see fit to recommend that vessels may be cleared direct for other Argentine ports like Campana, Zarate, etc., especially when loaded with goods that do not pay duty, but the regulations promulgated by the Health Department compel all vessels, in time of quarantine, to call first at Buenos Aires to receive the sanitary visit.

When quarantine is imposed on vessels proceeding from European or Brazilian ports, those coming from the West Coast of America will be allowed, on presentation of a petition to the Health Department, to touch at Bahia Blanca or other Southern ports, or to proceed direct to any of the above mentioned ports in the rivers without previously calling at Buenos Aires.

Similar permission is in such case and in the same manner granted to vessels proceeding from other ports, such as those of the United States, Canada, etc., including vessels that have undergone quarantine in Montevideo or discharged in Brazilian ports when the quarantine is only imposed from Europe.

The laws and regulations issued by the Health Department are, however, subject to so many and frequent alterations that owners, masters or agents of vessels should exercise due caution in availing themselves of these exceptions, as a scare in the shape of a suspected case of yellow fever, in the vicinity of the ports whence the vessel hails, may be found pretext sufficient for annulling the permission previously granted.

Steamers bound for Buenos Aires and calling at Montevideo generally leave the latter port at night, arriving early the next morning in the outer roads where they are visited.

Several banks have formed at the mouth of the River Plate which somewhat obstruct free navigation between Montevideo and Buenos Aires. Of these the Chico bank is provided with a light-ship situated in the middle of the channel between that and the Ortiz bank, in $5\frac{1}{2}$ fathoms of water.

Point Indio is the most difficult passage for Ocean-going vessels owing to the lack of water there being sometimes only 21 ft., obliging steamers of greater draught to drag a couple of feet through the mud. It is likewise provided with a lightship.

Another lightship has recently been moored close to Punta Piedras in $5\frac{1}{2}$ fathoms of water.

**The following are the various lights on the coast of the Argentine Republic
and in the River Plate**

NAME	RANGE AND COMPASS	HEIGHT ABOVE SEA LEVEL	SYSTEM	BEARINGS
Punta del Indio (lightship)	Visible 1½ miles.	13 metres	Revolving, catadrioptic, 4 double lenses.	Lat. S. 35° 10'. Long. W. 57° 5'
Banco Chico (lightship)	Visible 8 miles.	5 metres	Fixed. On Cordouan's system with reflectors.	Lat. S. 34° 48'. Long. W. 57° 30'.
Punta Piedras (lightship)	Visible 14 miles.	13 metres	Catadrioptic, 4 double lenses.	Moored 24 miles S., 33° E. of Point Indio lightship.
Boca del Riachuelo	Visible for 3 miles, originally visible 7 miles.	13 metres	Reflecting.	Lat. S. 34° 38' 10". Long. W. 58° 21' 20" Greenwich.
Martín García	Originally visible for 12 m., now only for 6 miles.	43 metres	Parabolical with octagonal lantern.	Lat. S. 34° 11'. Long. W. 58° 13' 15" Greenwich.
San Antonio	Visible for 21 miles in a sector of 270° embracing the whole horizon.	58 metres	Lighting apparatus is on Fresnel's system, lenticular with 8 lenses, and the revolving apparatus on Barbier's system.	Lat. S. 36° 18' 24" Long. W. 56° 44' 15" } Greenwich. » » 3h 46° 57" }
Punta Médano	Visible for 21 miles in a sector of 225° embracing the whole horizon.	59,50 metres	White, fixed. System Brobner, lenticular with 8 lenses.	Lat. S. 36° 53' Greenwich. Long. W. 56° 38' 9" »
Punta Mogotes	Visible for 22 miles in a sector of 225° embracing the whole horizon.	55 metres	Lighting apparatus is on Fresnel's system and the revolving apparatus on Barbier's system. Lenticular with 8 lenses.	Lat. S. 38° 05' 40" Long. W. 57° 31' 17" Greenwich. » » 59° 51' 30" Paris. » » E. 0° 23' 15" LaPlata observatory
Monte Hermoso	Visible 8 to 10 miles.	57 metres	Large lamp, lighted by kerosene.	Lat. S. 38° 59'. Long. W. 61° 39' 50" Greenwich.
Bahía Blanca (lightship)	Visible 14 miles.	13 metres	Catadrioptic, 4 double lenses.	Situate at the entrance to Bahía Blanca port and bears 13 miles S., 6° E. of Monte Hermoso.
Río Negro	19 miles is the maximum distance at which this light is visible.	45,62 metres	Fixed, reflecting.	Lat. S. 41° 03' 23" Long. W. 62° 48' 10" Greenwich.
Isla de los Estados	Originally visible for 14 m. now, owing to being in bad repair, only visible at a distance of 8 miles.	55 metres	Parabolical.	Lat. S. 54° 43' 24" Long. W. 63° 47' 1" Greenwich.

Buenos Aires

Unless vessels are subject to quarantine, they may proceed to their discharging berth after having received sanitary visit.

Quarantine is imposed on vessels frequently without any apparent reason and has of late become more severe in the Argentine Republic than in Montevideo. The vicinity of the Brazilian ports where yellow fever prevails nearly every year during certain months, makes it necessary to adopt serious precautions in order to prevent an introduction of the epidemic, but it seems incomprehensible that sailing vessels after a ninety days voyage from England should have been recently submitted to 8 days quarantine on the plea of cholera existing in Europe! Vessels arriving with a clean bill of health, no sickness on board and from non-infected or non-suspected ports receive free pratique; otherwise an observation of from 24 to 48 hours is ordered or 8 to 10 days quarantine imposed according to port of procedure and condition of the vessels.

In the event of any death, which may be attributed to cholera or yellow fever, having occurred on board a vessel in quarantine, the 8 to 10 days count from the date of the disinfection made after the last decease.

Passenger steamers carrying an Argentine Sanitary Inspector obtain certain advantages. Thus the period of quarantine instead of counting from the day the sanitary visit is made in Buenos Aires or from the day that the disinfection of the ship be finished, such term counts from the day the vessel leaves Rio or Santos respectively, if the vessel has called at these ports, otherwise, coming direct from Europe, the vessel will be subjected to an observation of 24 to 48 hours.

The sanitary Inspector embarks in this port for the round voyage unless there is one available at a European port where the Steamer calls and where no epidemic is raging. The said Inspector is paid at the rate of £ 2 for every day he remains on board together with the grant of a free passage.

Quarantine is performed by vessels in the outer roads under the surveillance of an Argentine man-of-war besides the usual guard-ship. Passengers suffering from epidemical diseases are transferred to a floating lazaretto until cured, the remainder being sent to the quarantine station on the island of Martin Garcia. First and second class passengers during their stay on the island are charged about 7/—daily for maintenance, the expenses of 3rd class passengers being now defrayed by the Steam-ship Companies, whereas formerly such cost was for account of the Government.

All vessels in quarantine are fumigated and disinfected, passengers' luggage undergoing the same process at the lazaretto of Martin Garcia. When steamers have to leave at a fixed date before expiry of the term of quarantine, permission is sometimes granted to discharge and load while performing same, but 8 to 10 days quarantine, to count from the moment they come alongside, is imposed on lighters receiving or delivering cargo in such cases. There is now a scheme on foot for the construction of two artificial islands upon the Chico and Ortiz banks for the purpose of organizing convenient quarantine stations where the different cases of sickness will be classed and separated. It is also intended to fortify these islands, but so far this project has not been considered.

Vessels are as a rule visited the day they arrive, unless bad weather prevents the tender with the Health authorities from going out, but masters of sailing craft complain that they sometimes have to wait for days before being visited or obtaining entry after undergoing quarantine.

The port of Buenos Aires consists of two parts. The inner port embraces the North and South basins, Docks, Boca del Riachuelo and Barracas, the outer port comprises the outer roads and channels. Vessels drawing less than 20 feet are compelled to proceed to the inner port, those of deeper draught may await a high tide, lighten in the outer roads and then enter, or else proceed to La Plata to discharge. Vessels loaded with inflammable or explosive materials must give due notice of same on arrival and await permission

to enter the port until the authorities have selected and pointed out a suitable berth. Only steamers of heavy draught enter La Plata to discharge, unless specially chartered for that port, despite its easy access and greater depth of water, merchants preferring to have their goods delivered in Buenos Aires, the emporium that furnishes nearly the whole country with European articles.

Steamers bringing general cargo discharge in Docks No. 1 or No. 2, which are provided with spacious ware-houses and hydraulic cranes.

The ware-houses are open from 7 am. to 6 pm. in summer and from 8 to 5 in winter. They are closed on Sundays and Holydays. Discharge to shore and loading from same is not generally allowed but permission for these operations to be performed in or from lighters is as a rule granted on feast days.

The Darsena Sud (South basin) is chiefly made use of by the River steamers, which only remain a few hours in port, or for embarking and disembarking passengers, emigrants and baggage. Dock No. 3 is very spacious and now open to traffic but not yet being provided with ware houses it is for the moment chiefly occupied by foreign men-of-war. At the request of the Steam-ship Agents, however, and in view of the detention suffered lately by several steamers for want of discharging berths, the Minister of Finance purposes erecting temporary sheds in this dock until ware-houses can be built.

Dock No. 4 is not yet open to service but is expected to be ready at the end of the year, as also the North basin. The latter will probably serve almost exclusively for River traffic owing to the entrance channel being in some places not more than 12 ft. deep while the South channel has from 15 to 25 feet according to the prevailing winds.

The said entrance channel offers serious inconveniences to vessels of heavy draught but after repeated agitation on the subject, Government has decided, apart from the dredging which is constantly carried on, to prolong the moles one kilometre more and widen the entrance, it being fully ex-

pected that the access to the port will be vastly improved before the end of the present year.

Steamers loaded with coal, iron, cement, bricks, lumber, kerosene, etc., generally discharge in the Boca (mouth) of the small river Riachuelo sometimes as high up as Barracas, a name derived from the ware-houses or depôts situated all along the river-side. The extension known under the name of Barracas commences at the ware-houses of Señor Badaracco and is of safe navigation for sea-going vessels as far up as the Railway bridge although considerably encumbered by small sailing craft and lighters. Nearly all sailing vessels discharge there in front of the store-houses of their respective consignees or into lighters.

Dock Sud. — Besides the berths previously mentioned a concession was obtained from Government and a Company formed to build a dock on the south side of the Riachuelo. The work owing to want of capital is not yet very far advanced but there is little doubt that once finished it will offer valuable accommodation and the increased traffic of the Port be facilitated thereby.

Port regulations. — A printed copy of regulations somewhat similar to those customary at other ports was formerly handed to masters on arrival and referred chiefly to precautions to be observed when entering the port.

These regulations have lately been modified but the new ones having proved impracticable, the Government has appointed a committee, on which the Steam-ship Agents are represented, to study the changes to be made.

Documents required. — The following are demanded on arrival by the different authorities:

- 1). Consular manifest and copy of same.
- 2). Sample list.
- 3). Crew list.
- 4). Provision list including all new articles on board.

Passenger steamers require besides:

- 5). 2 lists of all passengers.
- 6). 1 list of all immigrants.

- 7). List of passengers not immigrants.
- 8). Certificate of immigration.
- 9). Immigrants' passports.
- 10). List of immigrants aged over 60 years.
- 11). List of samples or packages belonging to passengers and containing valuables not declared in the manifest.

Furthermore it is necessary to deliver to Buenos Aires Agents the reply to the letter of inquiry handed to masters of steamers by the Montevideo Agency.

For sailing vessels or steamers loaded with coals, etc., no query-sheet is required.

Tariff of pilotages

Prices shown in Argentine paper dollars

DISTANCES	From 120-300 tons.	From 301-500 tons.	From 501-1000 tons.	From 1000-1500 tons.
	\$	\$	\$	\$
From Capes Sta María and San Antonio to Buenos Aires, Ensenada, Magdalena and intermediate ports or vice-versa.	70	90	110	130.
From Montevideo, Punta Indio, Santa Lucia, Colonia and intermediate ports to Buenos Aires or vice-versa.	40	50	60	70
From Capes Santa María and San Antonio to Rosario, San Nicolás, San Pedro, Campana, Uruguay, Gualeguaychú and intermediate ports or vice-versa.	80	100	130	150
From Montevideo, Punta Indio, Santa Lucia, Colonia and intermediate ports or vice-versa.	60	80	100	110
From Buenos Aires to the Tigre, Rosario, San Nicolás, San Pedro, Campana, Uruguay, Gualeguaychú and intermediate ports or vice-versa.	40	60	70	80

1). Vessels of more than 1500 tons pay the excess at the rate of 5 ‰ (five per mille) on the amount specified in the tariff for said tonnage for every 10 tons or fraction of ten tons above 1500.

2). Whenever a pilot is employed for any ports not mentioned in the preceding tariff, the fixed rate is 50 cents for every 100 tons per 10 miles the vessel may have made in the opinion of a competent authority.

3). Owing to the actual depreciation of paper money the above tariff prices, which are laid down in legal currency, are increased by 40 ‰.

4). The above charges are the maximum that should be paid, but captains can by private arrangement obtain a considerable reduction; steamers belonging to regular lines pay as a rule from \$ 60 to 90 gold from Montevideo to Buenos Aires and back.

Vessels arriving at Buenos Aires without a pilot are subject to one half of the usual charge for pilotage.

Masters of sailing vessels bound for Buenos Aires obtain pilots at Punta Indio if not further out and make as a rule arrangements without regard to the existing tariff. The charge varies according to size of vessel from £ 9 to £ 16 when loaded and £ 6 to £ 8 when in ballast. Vessels calling at Montevideo for orders pay for pilotage to the Buenos Aires Roads £8 to £12 according to size and draught, when loaded, and £ 8 when in ballast.

From Buenos Aires to Punta Indio the charge is less owing to the opportunity afforded to masters to profit by the competition between the different pilots, and varies from £ 3 to £ 5 when in ballast. Loaded vessels pay £ 6 to £ 7 up to a draught of 18 feet and to Montevideo £ 8 to £ 10.

Towage

There has lately been some idea of modifying the tariffs for towage of vessels, establishing the charges on a gold basis, but nothing has as yet been definitely settled in the matter and the prices at present in force, remain as follows, from which is deducted the usual discount of 25 ‰ to 30 ‰ on payment of the account:

Tariff for towage of sailing vessels from the channel (inner roads) to the Riachuelo port.

Prices shown in Argentine paper dollars.

NUMBER OF SECTIONS	Deposits and Warehouses comprised in the sections	TONS REGISTER																									
		301-350	351-400	401-450	451-500	501-550	551-600	601-650	651-700	701-750	751-800	801-850	851-900	901-950	951-1000	1001-1100	1101-1200	1201-1300	1301-1400	1401-1500	1501-1600	1601-1700	1701-1800	1801-1900	1901-2000	2001-2100	2101-2200
1-3	Boca Guard-house - Subprefecture of the Boca - Platense Workshops - Southern Railway Mole - Boca.	100	110	120	130	140	150	160	170	180	190	200	210	220	230	250	270	290	320	350	380	410	440	470	500	550	600
4-6	Boca Market place - Buenos Aires and Ensenada Railway Station - Tomás Drysdale & Co. - Juan and José Drysdale & Co. - South Basin.	106	117	128	139	150	161	172	183	194	205	216	227	238	249	271	293	315	347	380	410	430	460	490	520	570	620
7-9	Juan E. Turner - Domingo Cichero - Andrés Descours - Emilio Fulle & Co - Della Zoppa & Co. - Myeres Forn & Co. J. Badaracco and Sons - Dock No 1.	112	124	136	148	160	172	184	196	208	220	232	244	256	268	292	316	340	374	410	430	460	490	520	570	620	670
10-12	Juan V. Gagliolo - J. Ciarlo - Spinetto Bros. - Francisco Chas & Sons - (La Confianza) - A. Stewart & Co. - Peña - Furtado Díaz & Co. - Dock No 2.	118	131	144	157	170	183	196	209	222	235	248	261	274	287	313	339	365	401	440	470	500	530	560	590	640	690
13-15	Zemborain Bros. & Lugones - Bca. Britania - G. Balcarce - Melara & Marti - Barraca Argentina - J. Bell & Son - J. Shaw & Sons B. J. Lanata - A. Spinetto & Sons - Portalis Bros., Carbonnier & Co. - Barracas Guard-house - James Baggott - Bca. Puerto - J. P. Boyd & Co. - 3 Esquinas - Dock No 3.	124	138	152	166	180	194	208	222	236	250	264	278	292	306	334	362	390	428	470	500	530	560	590	620	670	720
16-18	Barracas: Santa María - Casalia - Rivero - Shaw Bros. - Victoria - Atalaya - Tomkinson, Dungey & Co. - Ocampo Sackmann - Mignaburu, Reta, Lys & Co. - Produce Market - Barracas bridge - Dock No 4.	130	145	160	175	190	205	220	235	250	265	280	295	310	325	355	385	415	455	500	530	560	590	620	650	700	750

Tariff for towage of ocean-going steamers.

For tug, pilot and boat service for bringing vessels from the Roads to the Boca del Riachuelo and vice-versa.

DRAUGHT IN ENGLISH FEET		BOCA	SOUTH BASIN	DOCKS			
				N° 1	N° 2	N° 3	N° 4
To	19	100	130	160	190	220	250
»	20	112	144	176	208	240	272
»	21	124	158	192	226	260	294
»	22	136	172	208	244	280	316
»	23	148	186	224	262	300	338
»	24	160	200	240	280	320	360

N. B.—If vessels are taken higher up, the charge to be conventional. Until further notice the tariff prices, which are made out in paper, will be increased by a percentage equivalent to half the premium on gold on the day of departure of the steamers.

CONDITIONS.

The preceding tariff applies to all vessels entering with cargo and leaving in ballast or vice-versa.

Entering only any of the above mentioned places the tariff is 70 % of the above charges.

Leaving with cargo, 50 % of the above charges and 35 % if leaving in ballast or empty.

It is understood that once the vessel has been brought to her destination, all expenses for shifting berths, etc., are conventional and charged separately.

Vessels whose draught does not permit of their proceeding higher up than the Boca will, after lightening, be towed to their destination at the charge fixed for entrance from the channel.

Vessels towed to points between the sections mentioned, will pay the tariff charge for towage to the further of the stations between which their destination lies.

Vessels taken at the bar instead of in the channel to pay additional pilotage at the rate of \$ 2 per foot of draught.

The Company does not hold itself responsible for grounding, collisions, average, etc., etc.

Society of port pilots

Formerly port pilotage was included in the towage charges but some months since a society denominated as above was constituted which agreed upon the following tariff at present in force:

STEAMERS

From the outer roads to the Riachuelo or docks or vice-versa :

Draught up to 20 ft.	(paper)	\$ 15
» above »	» »	20
Each shift of position.	» »	6

SAILING CRAFT

From the outer roads to the Riachuelo, etc. :

Up to 500 register tons.	(paper)	\$ 15
» » 1000 » »	» »	20
» » 1500 » »	» »	25
» » 2000 » »	» »	30

Each change of position:

Up to 500 register tons.	(paper)	\$ 5
» » 1000 » »	» »	6
» » 1500 » »	» »	7
» » 2000 » »	» »	8

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> > 1000 > >	> >	20
> > 1500 > >	> >	25
> > 2000 > >	> >	30

Each change of position:

Up to 500 register tons.	(paper)	\$ 5
> > 1000 > >	> >	6
> > 1500 > >	> >	7
> > 2000 > >	> >	8

The charges laid down for changes of position hold good when such changes are effected between the Boca and Docks or Boca and Barracas, double tariff being charged when the change is between Barracas and the Docks.

If owing to want of water on entering or leaving port, shifting position, or due to the lateness of the hour, vessels are unable to proceed to their destination, the charge for pilotage remains unchanged and the tariff prices are adhered to.

The same rule applies to vessels shifting position to effect loading or discharging operations, to make good repairs and to take in ballast.

Tugboats and pilots are sent alongside by the consignees or agents in order to bring vessels into the docks of Buenos Aires, to the Boca del Riachuelo, Barracas or La Plata, where discharge can be commenced without delay should packet privileges have been taken out, or otherwise when duly entered at the Customs. In presenting the ship's manifest at the Custom-house care should be taken to rectify any possible mistake such as cargo delivered short at any intermediate port and existing on board, surplus cargo, etc. Most agents, however, have printed forms with the necessary directions and enquiries to be filled up by masters. It is likewise necessary to be very careful in making out the store-lists as mistakes are punished by fines and confiscations.

Discharge in the ports of Buenos Aires and La Plata is generally performed with regularity and without delay although there may occasionally be some difficulty in obtaining berths and warehouse room in the docks. Owners and consignees are now no longer exposed to the serious claims which were paid when vessels had to discharge into lighters in the outer roads.

Steamers with general cargo employ as a rule tally clerks to assist in the delivery and for the purpose of facilitating the grant of clean receipts daily.

Stevedores.—Are always engaged for loading and unloading and paid either per ton according to prices arranged by private contract or per day for each laborer.

The usual tariff is as follows:

LOADING OF STEAMERS

Wheat, Maize and Linseed.....	per ton	Gold	\$ 0.14
Quebracho.....	»	»	» 0.30
Salted Hides, (1000 = about 30 tons dead-weight).....	»	»	» 0.25
Dry Ox Hides, (1000 = about 40 tons measurement).....	»	»	» 0.15
Dry Horse Hides, (1000 = about 30 tons measurement).....	»	»	» 0.15
Wool, per 40 cubic feet.....		»	» 0.15
Hay in pressed bales, per 40 cubic feet.....		»	» 0.15
Horns and Horn Piths, per 1000.....		»	» 0.40
Bran, per ton dead-weight.....		»	» 0.25

Screws supplied free of charge for Wool and Hay.

DISCHARGING OF STEAMERS

Coals, per ton.....	Gold	\$ 0.16
General Cargo, per ton.....	»	» 0.15
Cement, per ton.....	»	» 0.14
Heavy Machinery over 5 tons.....	»	» 0.50
» » from 3 to 5 tons.....	»	» 0.25

Rigging or any other extra work paid at rate of \$ 1.00 gold per man and day.

Supply of gear for heavy weights to be paid extra.

LOADING OF SAILING VESSELS

Maize, Wheat and Linseed, per ton.....	paper	\$ 0.50
Hay, per 40 cubic feet.....	»	» 0.55
Quebracho, supplying all gear.....	»	» 1.20
Bones (half camp, half burnt).....	»	» 1.60
Bran, per ton dead-weight.....	»	» 0.70
Tallow, per Pipe.....	»	» 0.75
Dry Hides, per 1000.....	»	» 24.00

DISCHARGING OF SAILING VESSELS

Pitch Pine, per 1000 feet	paper	\$ 0.90
Spruce, » » »	» »	0.50
White Pine, » » »	» »	0.45
Oregon Pine, » » »	» »	0.70
Coals, per ton	» »	0.50
General Cargo, per ton weight or measurement	» »	0.45
Salt, per ton	» »	0.50
Rice, per ton	» »	0.50

Crew to be paid at the rate of \$2.50 paper per diem each man employed in discharging.

A Weigher is employed only when cargoes of coals have to be weighed out instead of taken as per bill of lading quantity with customary reduction.

Loading of vessels is performed in all the previously mentioned places either by lighters bringing cargo alongside or by railway and tram trucks or carts.

Frozen meat is brought alongside the steamer in suitable lighters specially fitted up for the transport thereof.

Vessels taking live-stock go as a rule alongside a berth in dock N° 1 which is adapted for the purpose and where embarkation is performed very rapidly.

Sheds have also been erected here affording shelter to the animals awaiting shipment.

Large numbers of cattle and sheep are now shipped to the Brazils and also to European ports. Fittings are generally for account of the ship and may be put down at about 16/ for each bullock and 1/ for each sheep.

The following is the tariff of a responsible firm of carpenters with experience in this branch:

**Tariff prices for fitting ships for transport of animals to the
Brazils and Europe**

Brazils:

Stalls for <i>horses</i> and <i>cattle</i> with 4 animals in each division, without floor, but with racks per head	5/
same with flooring on deck and over hatchways	8/
<i>Sheep</i> , single tier without floor, with 1 row of racks, troughs and cross troughs to each 45 or 50 per head	10d.
double tier » »	1/3d.
<i>Pigs</i> at the same prices if not very large.	

Europe:

Stalls for <i>cattle</i> with clear space between posts, to be 8 feet in length by 2 ft. 8 in. width; materials employed to be 3 × 6 in. for posts, 1 inch floors and roof, for divisions, 2 × 9 in., crossbeams 1½ in.; wooden drinking troughs per head	16/9d.
<i>Horses</i> , clear space between posts to be 8 feet in length by 2 ft. 6 in. wide; including troughs, floor and divisions as above . .	15/9d.
<i>Cattle or horses</i> on deck with sheep arranged above. Continuous platform, framework all round and watertight flooring:	
<i>Cattle</i> per head	17/6d.
<i>Sheep</i> » »	1/3d.
» on deck without flooring . . » »	10d.
» in two rows one above the other » »	1/3d.
<i>Pigs</i> about the same as sheep.	

The above may be considered as average charges for fittings fulfilling all essential requirements but reductions may be obtained by special contracts.

Should more elaborate arrangements be required the expense will be, of course, proportionally greater.

The steamers provide fresh water necessary for the voyage and give free steerage passage to one attendant per every 20 to 25 head of cattle or horses and per 200 sheep. The fodder is supplied by the shippers but carried free of freight. Surplus fodder pays freight on arrival at port of destination at current rates. Steamers are not responsible for accidents of any kind whatever.

Provisions of all kinds can be obtained at moderate prices. Fresh provisions, meat, vegetables, flour, etc., are cheap.

Water is pumped into the ship's tanks from the River on the homeward voyage and before reaching Montevideo.

Ballast. — Stone ballast, brought from the Uruguay Republic formerly cost \$ 4 paper per ton but owing to the great number of vessels arriving in ballast, it can at present be obtained in the Boca at \$ 2 per ton. Cost of same delivered in the Dock is \$ 2.50; mud ballast is supplied in the Boca at \$ 1.60 and in the Docks at \$ 2; sand in the Boca \$ 1.80 and in the Docks \$ 2 (paper).

The ballast is delivered alongside the ship in quantities varying from 80—100 tons daily. The above prices are subject to fluctuations and vary according to circumstances. The cost for discharging ballast is \$ 1 paper, in the Boca and \$ 1.50, in the Docks.

Dunnage.—There is no special law laid down here so far fixing the way in which dunnage should be laid for the protection of the different kinds of cargoes shipped from these rivers and it is left to the judgment of masters to supply efficient dunnage according to the customs of other countries. Bones, horns or hornpiths are used for dunnage of cargoes of salted hides and bone-ash and are also shipped as broken stowage in vessels loading tallow in pipes. Freight is charged in all of the preceding cases. Some produce, such as wool and sheepskins, does not require dunnage over and above the lining planks that always are laid down in the bottom of ships at a sufficient height to prevent the cargo from being damaged by water. Masters of vessels loading wool however, frequently take the precaution of buying dry hides of inferior quality to line the sides of the hold in order

to preserve the cargo from moisture in the case of the vessel straining. Bundles of straw twisted together and placed along the ship's sides were formerly used to protect cargoes of jerked beef shipped in bulk, but this article is now generally loaded in bags and sent forward by steamer, rendering the above precautions unnecessary. For cargoes of grain, charter-parties specify that ships shall provide mats and dunnage.

Most vessels are provided with an assortment of mats which cannot be obtained in the River ports here, but a substitute is found in sackcloth and old sails which serve to cover the loose planks and boards necessary for dunnage. Masters sometimes have to purchase wood and give the preference to young bamboo cane or willows which are cheap. Merchants have hitherto not insisted on cargoes of cereals shipped in bags being separated, but masters of vessels loading on the berth for direct ports and receiving parcels from divers shippers would do well to take this precaution in order to prevent bags with different marks becoming mixed, and claims with regard to the quantity remaining in the hold proceeding from broken bags.

Coals can actually be had at about 30/— to 32/— per ton trimmed into bunkers and with quick despatch.

Coal weigher.—From 12 to 16 cents paper per ton; the usual price is 13 or 14 cents.

Repairs.—There is no dock suitable for large vessels at Buenos Aires but, besides slips, there are many workshops where all damages to hull and machinery can be efficiently repaired; the services of professional divers can also be obtained at moderate charges.

Lloyds.—Exclusive of Lloyd's agent nearly all of the more important European Insurance Cos. have their representatives here who intervene in all casualties that occur. In cases of collisions, damages, etc., the questions arising are as a rule submitted to arbitration in order to avoid expensive and lengthy legal proceedings. There are competent legal advisers resident in Buenos Aires and La Plata.

Hospitals.—The different nationalities resident in Buenos Aires have established their own Hospitals where patients are attended by physicians speaking their respective languages.

Sea-faring men suffering from any kind of non-infectious disease are admitted with a landing permit from the local authorities and guarantee of payment from their respective Consul or the Agent of the vessel.

The charges are as follows:

British Hospital.—A contract may be made with the Hospital through the British Consulate on arrival of steamers or sailing vessels for admission of any number of the crew during the vessel's stay in port on payment of \$ 1 gold for each man onboard if steamer, and \$ 2 gold for each man onboard if sailer. Not contracting with the hospital the charge for each individual admitted is \$ 1.80 gold per day.

German Hospital.—Vessels contracting with this hospital through the German, Dutch, Swedish and Norwegian, Danish and Russian Consulates pay \$ 2 gold for each man onboard. Not contracting the charge is \$ 4 paper for each man admitted per day.

Italian Hospital.—No contract can be made with this hospital. Sailors are admitted at a charge of \$ 1.80 paper per day. With special room \$ 6 paper if alone, \$ 3.50 paper each if two persons in the same room.

The rules for admission to and charges of the French and Spanish Hospitals vary little from the above.

Argentine Port-charges

As previously stated, according to quarantine regulations now in force, it is necessary for all vessels bound to any Argentine port to call at Buenos Aires to be visited, but if no cargo operations are performed, steamers as well as sailing vessels may remain up to 8 days without payment of port charges, which are collected at the first port where loading or discharge is effected.

Masters of vessels are in such cases provided with a certificate from the Health Doctor, free of charge, declaring that the ship has been visited. They may then proceed to other Argentine ports, to which effect the Consular manifests delivered on arrival are returned to the master. Vessels remaining above 8 days must give entry at the customs and pay besides light and health-dues.

The fixed charges to be defrayed equally by steamers and sailing vessels arriving with cargo for any one Argentine port are:

	\$ Gold	\$ Paper
<i>Light-dues.</i> Punta Indio and Banco Chico together, per reg. ton.....	0.07	
So far no charge is made for the lightship moored at Punta Piedras.		
<i>Health dues.</i> Vessels with clean bill of health per reg. ton.....	0.01	
Vessels with foul bill of health per register ton.....	0.02	
<i>Bill of health,</i> steamers and sailers of all sizes.....		6.50
<i>Consular fees</i> according to vessels nationality, tonnage and port or ports of destination.		
<i>Stamped paper.</i> The manifest and store-list must be translated into Spanish and presented at the Customs bearing, for steamers, an official stamp of the value of		50.00
for the first sheet and.....		1.00
for each subsequent sheet required.		
For sailing vessels of over 500 tons register the stamps required for giving entry amount to.....		30.00
besides each additional sheet necessary at.		1.00
Vessels arriving in ballast require stamped paper for entry of half the value of that necessary when arriving with cargo and		

	<u>\$ gold</u>	<u>\$ paper</u>
pay light-dues, instead of gold \$ 0.07, only.....	0.0525	
besides one half of the usual health dues.		
Steamers with packet privileges require no special permit for taking in cargo and on clearing only present a statement of goods taken on board on stamped paper of the value of.....		0.75
Sailing vessels leaving in ballast have only one charge of.....		1.00
When loading a special permit called «opening register» must be taken out which costs.....		25.00
When clearing with cargo or «closing register», the stamped paper required amounts to.....		51.00
Steamers pay an extra charge for packet privileges, which for cargo steamers is..		150.00
and for passenger-steamers provided with disinfecting stove, for each voyage.....		50.00
besides stamped paper in both cases.....		4.00
Steamers that have paid \$ 50 for inward manifest or sailing vessels that have paid \$30 for same in any Argentine port have only to pay \$ 2, paper, for the first, and \$ 1 for each additional sheet of stamped paper in all other Argentine ports where they may discharge part cargo.		

Agency Commissions

Steamers arriving with general cargo as a rule pay Agents a commission of 1 to 2 % on amount of freight for attending to ship's business inwards, besides in all cases when steamers do not belong to regular lines and when not stipulated to the contrary in the charter-party:

	\$ gold	\$ paper
For giving entry at Customs.....	50.00	
» clearing in ballast.....	25.00	
» » with cargo (if loaded in one port only).....	50.00	
For clearing with cargo (if loaded in several ports).....	75.00	

Sailing vessels.

For giving entry at Customs.....	25.00
» clearing in ballast.....	15.00
» opening register to load and clearing.	25.00

The above are the usual commissions charged in Buenos Aires, La Plata and Rosario, but in some of the smaller river ports the Custom-house business is transacted at a lower remuneration,

Brokerage on steam and sail charters is usually 5 %, but is subject to modification and return according to circumstances or arrangement.

In the ports of Buenos Aires and La Plata, vessels, besides the above mentioned charges, are liable to dock and mole dues, also fees for towage, pilotage and sanitary service which will be found specified separately in the respective sections which treat thereof.

Mole dues have lately been exacted in Rosario and a similar charge is levied in some other River ports as will be noted in the description of each.

Besides the preceding fixed charges to be paid once, vessels, performing operations in more than one Argentine port, must, in those below mentioned, pay stamps as above stated, port pilotage according to the regulations of each, cost of discharging and loading ballast, boat-hire and petty expenses, all of which will be given separately in the description of each loading place without repeating the general port charges which are presumed to have been paid as already specified.

**Approximate expenses of a Steamer of 1.500 Tons Reg. Draft
20 feet, 25 days in Port of Buenos Aires.**

	GOLD	PAPER
Stamped manifest at Custom house . (for the first sheet \$ 50 paper and \$ 1, for each extra sheet, say from \$ 50 to \$ 60 paper in all).		\$ 50.00
Light dues, gold \$ 0.07 per. reg. ton.	\$ 105.00	
Health » » \$ 0.01 » » » .	» 15.00	
(if with foul B/H at 0.02 » » »).		
Dock dues at gold \$ 0.10 » » » .	» 150.00	
Wharfage at gold \$ 0.13 on every 10 tons or fraction thereof up to 100 and gold \$ 0.07 on each addi- tional 10 tons per day	» 277.50	
Refuse Boat.		» 40.00
Packet privileges for each voyage . . (if with disinfecting stove \$ 50 pa- per for each voyage).		» 150.00
Bill of Health \$ 5. Stamp for same \$ 1.50		» 6.50
Towage in and out, South Basin or Boca \$ 144, plus 1/2 Prem. on gold = 125 % \$ 324, less 25 % \$ 81. .		» 243.00
Port Pilotage (up to 20 feet \$ 15, above 20 feet \$ 20, and for each shift of position \$ 6 paper.)		» 15.00
Custom house despatch inwards and outwards.	» 100.00	
River Pilotage, conventional.		
	<u>\$ 647.50</u>	<u>\$ 504.50</u>
\$ 504.50 paper at 350 %	» 144.14	
Gold	<u>\$ 791.64</u>	
\$ 791.64 gold at \$ 5.04 per £		<u>£ 157.15</u>

Approximate expenses of a Sailing Vessel of 1.500 Tons Reg.
Draft 20 feet, 40 days in Port of Buenos Aires.

	GOLD	PAPER
Stamped manifest entering at C/H . (for the first sheet \$ 30 paper and \$ 1. for each extra sheet, say from \$ 30 to \$ 36, in all).		\$ 30.00
Light dues at gold \$ 0.07 per. reg. ton	\$ 105.00	
Health dues at gold \$ 0.01 per. reg. ton	» 15.00	
(if with foul B/H. at \$ 0.02 per. reg. ton).		
Dock dues at gold \$ 0.20 per reg. ton.	» 300.00	
Wharfage at gold \$ 0.13 on every 10 tons or fraction thereof up to 100 and gold \$ 0.07 on each addi- tional 10 tons per day	» 444.00	
Refuse Boat.		» 40.00
Bill of Health \$ 5. Stamp for same \$ 1.50		» 6.50
Stamps clearing.		» 51.00
Towage in and out. Boça. \$ 350 less 25 %		» 262.50
Port Pilotage		» 25.00
Custom house despatch inwards and outwards.	» 50.00	
River Pilotage, conventional.		
	\$ 914.00	\$ 415.00
\$ 415 paper at 350 %	» 118.57	
Gold	\$ 1032.57	
\$ 1032.57 gold at \$ 5.04 per £.		<u>£ 204.17.6</u>

Carrying capacity of vessels loading produce in the Argentine Republic.

A vessel of about 400 reg. tons will carry:

- 600/650 tons of 2240 pound Engl. of cereals.
- 200 » d.w. cargo and 10.000 dry hides.
- 14.000 salted hides with necessary bones for dunnage.
- 550 tons Quebracho.
- 370/380 » Bones.
- 800/850 pipes tallow.
- 700/750 bales of wool.
- 700 tons measurement of hay.

Weights and measurements of River Plate Produce.

- 1 Argentine bale of wool or sheepskins weighs about 900 pound
Engl. and..... measures about 42 cub. ft.
- 1 Uruguay bale of wool or sheepskins weighs about 1100 pound
Engl. and..... measures about 54 cub. ft.
- 1000 salted ox & cow hides weigh about 30 tons
- 1000 » horse » » .. » 18 »
- 1000 dry » » » .. » 8/10 »
- 1000 » ox and cow » » .. » 12 »
- 1 bag of wheat or maize weighs. » 65/72 kilos
- 1 » » linseed » .. » 60 »
- 1 » » bran » .. » 30 »

For English & German ports 1 ton weight = 2240 lbs. English

For French, Belgian, Italian & Spanish ports 1 ton weight.... = 1000 kilos.

For English & German ports 1 ton measurement. = 40 English cubic feet

For French, Belgian, Italian & Spanish ports 1 ton measurement..... = 1 cubic metre = 36 cubic feet

Banks established at Buenos Aires

The London and River Plate Bank, Limited.

- » British Bank of South America »
- » London and Brazilian Bank »
- » Anglo-Argentine Bank »
- » Italian and River Plate Bank.
- » New Italian Bank.
- » Spanish Bank of the River Plate.
- » German Transatlantic Bank.
- » French Bank of the River Plate.
- » Commercial Bank.
- » Bank of the Argentine Nation.

Weights and Measures

From the 1st January 1879 the decimal system has been established in the Republic for weights and measures and its use is becoming more and more general though the Castilian weights and measures are frequently employed in various places for certain articles.

The monetary System

The monetary unity of the Argentine Republic is the gold or silver dollar, the first containing 1.1629 grammes, and an alloy of 0.900 fine, and the second 25 grammes and 0.900.

The Mint is authorized to coin the following moneys:

Gold, 1 Argentine = 5 dollars.

» $\frac{1}{2}$ » = 2.50 »

Silver, 1 dollar (\$ 1), \$ 0.50, \$ 0.20, \$ 0.10, \$ 0.05.

Copper, \$ 0.02, \$ 0.01.

It is not obligatory to receive silver or copper coins to the value of more than 50 cents in payment of amounts up to 20 dollars, and of one dollar for larger amounts.

Owing to the State Banks being unable to convert their notes in specie, gold can only be obtained against payment of a premium, which through the political and financial dif-

facilities of the country has gradually risen to the following average rates :

For the month of April 1894.....	262.21
» » » » May »	300.22
» » » » June »	288.38

The acceptance of foreign coins is obligatory at the following rates:

1 Argentine gold piece.....	Gold \$	5.—
Peruvian gold piece of 5 soles.....	»	5.—
Spanish » » » 25 pesetas...	»	5.—
South American ounce.....	»	16.275
Brazilian gold piece of 20.000 reis..	»	11.320
American eagle	»	10.364
Chilian condor	»	9.455
Spanish doubloon.....	»	5.166
English sovereign.. ..	»	5.040
French gold piece of 20 fr.....	»	4.—
German » » » 20 M.....	»	4.940

Exchange

On London.....	=	47. $\frac{1}{8}^d$	—	48. $\frac{3}{4}^d$
» Paris.....	=	fr. 4.94	—	5.06
» Berlín.....	=	M. 4.00	—	4.09

The average rates of freight paid during last year (1893) from Buenos Aires and La Plata to the different ports of Europe for the following articles were:

BY STEAMER TO:	Wheat	Maize	Salted hides	Dry hides	Wool in bales	Sheep skins in bales	Tallow	BY SAILING VESSEL CHANNEL FOR ORDERS FROM:							
	Wheat	Maize	Salted hides	Dry hides	Wool in bales	Sheep skins in bales	Tallow	Wheat	Maize	Linseed	Salted hides	Quebracho	Bones	Bones and ashes	Tallow
Liverpool, London.	17/	24/	40/	16/	16/	20/	20/	Paraná	27/	28/10	—	27/6	—	—	—
Antwerp	16/	24/	40/	15/	15/	20/	20/								
Havre & Dunkirk.	16/	24/	48/	15/	15/	24/	24/	San Lorenzo	23/6	25/	—	—	—	—	25/
Marseilles	15/	24/	45/	14/	14/	24/	24/								
Bordeaux	15/	24/	45/	12/	12/	24/	24/	Zárate	22/6	23/6	38/	—	27/6	—	30/
Genoa	16/	24/	56/	11/	11/	20/	20/								
Barcelona	16/6	—	56/	14/	14/	22/	22/	Paysandú	22/6	23/6	32/6	—	27/6	—	30/
Bremen	17/	25/	45/	17/	17/	24/	24/								
Hamburg								22/6	23/6	32/6	—	25/	—	27/6	
															Bahia Blanca
								Tuyú	—	—	30/	—	24/	—	24/
								Magdalena	—	—	30/	—	24/	—	24/
								Buenos Aires	18/	19/	25/	16/10	20/	16/6	22/6
								La Plata	18/	19/	25/	16/	20/	—	22/6

Steamers chartered to load wheat in the River Paraná not higher than San Lorenzo obtained during the year 1893 from 18/ to 24/ completing at La Plata at 8/ less, but rates ruled considerably higher during the first months of 1894.

Charter-parties

I have thought it might be of interest to owners to receive some hints with regard to certain clauses in the charter-parties that are generally used in this trade, both outwards and homewards, with the view of removing doubts in their interpretation and obviating differences of opinion between masters and consignees.

The clauses in *outward charter-parties* that most frequently give rise to disputes are: whether certain port charges as towage, pilotage, wharfage. etc., should be defrayed by the ship or by the consignees, some charters containing contradictory clauses on this point.

These expenses fall as a rule on the ship at port of discharge as well as at port of loading, and it should be clearly expressed that they are to be paid by the consignees at port of discharge if such is the agreement. Vessels pay generally an address commission of $2\frac{1}{2}\%$ besides the fee for giving entry in the Custom-House. When it is mutually arranged that consignees are to give entry without extra charge, the words: paying address commission of $2\frac{1}{2}\%$ «for doing ship's business inwards» should be added to the general clause.

Although the question of working days for discharge is of less importance since the vessels discharge in a good port and not as formerly in the outer roads, it is always preferable to obtain running days for discharge, — and especially should owners of vessels, bringing general cargo, insist upon a certain number of days being laid down in the charter-party, as the clause: «according to the custom of the port» leads to great delay and many annoyances. When the charter-party specifies «running days (Sundays and Holydays excepted)», it might be well to add: «unless work is done on such Holydays».

When it is stated in coal charters that there is an option of delivering the cargo without weighing, less a reduction of 2% on the bill of lading quantity, it is necessary to state

clearly whether it is the master or consignee who has such option, doubts having arisen on this point for lack of any stipulation.

If vessels are unable to enter the port for want of water it should be distinctly specified how long they are to wait before lighters are sent to discharge part cargo provided that the lighterage is for account and risk of the consignees.

For homeward chartering from this river an almost uniform type of charterparty has been adopted which gives little occasion for dispute and varies only in details. All the loading ports below mentioned are safe under ordinary circumstances and most of the berths assigned to vessels by their respective charterers are equally so. It is a question of arrangement if sailing vessels are to be towed to the place of loading, and in such case for whose account the towage is to be, as well as for shifting from one loading berth to another.

Although merchants have agreed upon a certain stipulation in the grain charter called the « bar clause » limiting the draught of vessels to 16 1/2 ft. in the months of June to September and to 18 1/2 ft. from 1st October to 31st May and not allowing lighterage over Martín García bar, exceptions are made in certain cases and it is also expected that the clause will soon be modified there being now more water in the passage than formerly.

Steamers do not pay address commission in Europe, nor is it now regularly insisted upon when chartering sailers, although some merchants still make a rule of exacting it.

The clause in homeward charter parties which stipulates that the vessel should be approved by the agent of the underwriters, the consignees paying the expense, has given rise to some mis-understandings and caused several charterparties to be cancelled to the prejudice of the vessel concerned.

Masters sometimes labour under the unfounded suspicion that merchants avail themselves of this clause to throw up ships on a falling market which virtually would imply complicity on the part of the surveyors, but although this opinion is presumably unwarranted, there is yet a risk of delay and probable loss of freight to vessels, especially

those arriving in ballast, in the event of their being rejected at the aforesaid compulsory survey.

Such inspection appears superfluous when owners or masters guarantee that their ships have a certain class in Lloyds or in a well known Veritas, giving also date of copper, and it may be expected that Insurance Companies will decide to amend a rule as vexatious as it is prejudicial to shipping interests.

General Remarks

Steamers entering the port of Buenos Aires or that of La Plata always pay their own port-charges both inwards and outwards unless specially set forth to the contrary in the Charter-party, which is not generally the case.

With sailing vessels it is a matter of arrangement at the time of fixing in Europe whether the inward port-charges including towage, pilotage and mole dues should be paid by the ship or by the cargo.

The wharfage dues, while sailing vessels are loading, are generally paid by the homeward charterers, but vessels are liable to payment of the usual charges during the time they remain awaiting orders or take in ballast. Vessels that have to repair damages may be exempted from payment of wharfage dues for 15 days by presenting a petition to that effect.

Vessels that have discharged in the port of Buenos Aires and load in the Rivers do not pay entrance fees over again when completing in Buenos Aires but are subject to mole dues while loading. If completing at La Plata, the charges are the usual ones.

Vessels loading part cargo in Montevideo for stiffening and completing in Buenos Aires, pay an additional 20 cents gold for every ton of cargo loaded in Montevideo on entering Buenos Aires.

Those that load part cargo, say for stiffening, at Buenos Aires to complete at La Plata, pay full port charges at the latter port besides expenses at Buenos Aires, as if leaving with cargo and not in ballast.

Vessels bound for the ports of Puerto Plaza or Arijon, Puerto Borghi and San Lorenzo should call at Rosario to obtain entry.

The lively demand for tonnage from this river during the last months, owing to the considerable export of wheat this year, has created an active competition amongst the different ship-brokers established here, as well as between their business connections in Europe. This competition can only be but beneficial to the exporters here who by judiciously availing themselves of the different offers, may frequently obtain certain advantages, while at the same time it often serves the purpose of owners, but the way of conducting chartering adopted lately by some owners is scarcely calculated to improve rates or to advance their interests.

As the object of this publication is to acquaint shipowners in some measure with the customs of these countries I hope that it may not be considered presumptuous on my part if I take the liberty to remark that while it is scarcely fair to leave the chartering of their vessels simultaneously in the hands of sometimes three or four brokers who spend large sums in telegraphing offers and counter offers backwards and forwards to the amusement and perhaps instruction of owners, it seldom helps to improve the original offer, and often has quite the contrary effect. Thus merchants when assailed by several brokers offering tonnage, imagine that there are more vessels available than is the case, and if the names of the vessels are given they evince their distaste at treating with several parties for the same business. Some cases have occurred when the same vessel has been chartered to two different merchants owing to a broker being unduly anxious to show that he was the one authorized to fix her! Several merchants have now adopted the plan of not making offers at all for any vessel previously proposed by another broker, or of offering to every new one 6^d less per ton, and amongst agents there is even some idea of boycotting owners who make it a practice to promote competition amongst brokers in order only to obtain telegraphic information to suit their own ends.

There is a number of respectable shipbrokers in Buenos Aires in whose hands owners' interests are quite safe and who need no stimulant to work to the best of their ability to obtain remunerative rates without being exposed to the mortification of offering to their friends vessels that have already been handed about the market, and put to expense greater than that which is covered by the brokerage, even if the business be transacted.

Imports. — The Argentine Republic progressed slowly but steadily from the time of its political reorganization in 1862 until the year 1880. From that period its commerce received a rapid impulse and important enterprises were undertaken. This engendered a spirit of speculation fostered by the facilities for obtaining money in Europe and the result was to produce a general inflation in all values tempting people who fancied themselves rich to all kind of extravagances. The proportions assumed by the import trade during that decade as compared with the scanty population of the country are quite astounding, and although a great deal of the imports were destined for useful purposes such as the construction of railways, waterworks, drainage and port works, yet there were also introduced a great many fancy articles of little lasting benefit to the importer and generally to the detriment of the shipper.

The crisis attendant on the previous lavishness has greatly influenced the import trade by forcibly putting a stop to nearly all Government enterprise and diminishing the demand for all articles, even to those of daily requirement. Still the fact must not be lost sight of that other circumstances have also contributed to the decrease in the import trade, the principal one being that during the past few years several new industries have sprung up which considerably reduce the country's necessity for imported articles.

Of these the chief are wine, the grape being now largely cultivated in several provinces, and sugar, of which heavy shipments were previously introduced from Europe but is now produced in quantities sufficient for the local consumption of the country. While therefore the Argentine Republic

may prove independent of Europe for certain articles hitherto introduced on a large scale it will yet remain dependent on the Old World for many others and more specially for manufactured goods of all kinds. In some of the latter and chiefly in all classes of agricultural machinery the import trade is constantly augmenting in view of the demands of the yearly increasing agricultural population. Another article which formerly was imported only in comparatively small quantities is coal, but the building of the artificial port where bunkering can be done under favorable circumstances has opened a great market for this article and furnished a valuable element of transport for a fleet of steamers and sailers.

The value calculated in gold dollars of goods imported in the Argentine Republic during the last six years is as follows:

1888	1889	1890	1891	1892	1893
\$ 128,412,110	164,569,884	142,240,812	67,207,780	91,481,163	96,223,628

This amount is made up for the year 1893 as follows:

Live stock.....	\$ 201,433
Alimentary substances.....	» 10,743,580
Liquors and liquids.....	» 8,342,091
Tobacco.....	» 405,529
Woven stuffs and fabrics.....	» 27,817,591
Cloths.....	» 4,766,136
Chemical and pharmaceutical products and • substances.....	» 4,101,225
Wood and its applications.....	» 4,890,077
Paper > > >.....	» 3,127,894
Skins > their >.....	» 845,238
Iron > its >.....	» 13,057,430
Building materials.....	» 3,279,648
Metals and their applications.....	» 1,555,954
Stones, earth, crystal and ceramics.....	» 2,359,451
Combustibles and illumination fixtures.....	» 6,868,846
Sundries.....	» 3,861,505

The percentage of imports from the principal European countries during the year 1892 was as follows:

United Kingdom.....	39.2	%
Germany.....	11.6	»
France.....	11.4	»
Italy.....	9.2	»
Belgium.....	7.3	»
Spain.....	2.4	»
and from the United States, N. America	8.1	»

Exports.—Up to the year 1880 the Argentine Republic was an essentially pastoral country and its exports consisted exclusively of the produce derived therefrom comprising wool, hides (dry and salted) sheepskins, tallow, jerked beef, extract of meat, bones and bones ash, etc.

In the above year the first parcels of wheat were shipped to Europe followed by later shipments of maize and linseed but few anticipated that the development of this industry would be so rapid and on so vast a scale. I give herewith a statistical note of Argentine exports during the past 6 years showing that while the export of pastoral produce has remained almost stationary, that of all articles derived from agriculture has augmented year by year and recently to an enormous extent.

Although the maize crop has this year been lost owing to continued drought, it is reckoned that more than 1 ½ million tons of wheat alone will be exported.

In former years the steamers of regular lines trading to Buenos Aires, found little or no return freight during the 4 or 5 months from June to October and consequently very few sailing vessels arrived during that period, but in future the season for export will extend over the whole year justifying the presence in this River of the numerous steamers and large sailers that have now been tempted to come out in search of employment. The average amount of tonnage from here which will be required exceeds 2 million tons and every probability points to a constant increase, thus rendering the Argentine Republic one of the principal suppliers of wheat to the European markets.

**Export of pastoral produce from the Argentine Republic
during the past 6 years in round numbers:**

Wool		Tons weight	Dry hides		Hides
	1888	131.700		1888	2.610.000
	1889	142.000		1889	2.420.000
	1890	119.000		1890	3.050.000
	1891	140.000		1891	2.680.000
	1892	155.000		1892	2.845.000
	1893	123.000	1893	3.181.237	
Sheepskins		Tons weight	Salted hides		Hides
	1888	28.000		1888	797.000
	1889	36.000		1889	966.000
	1890	27.000		1890	1.294.000
	1891	24.000		1891	1.262.000
	1892	32.000		1892	1.068.000
	1893	26.000	1893	1.025.000	
Tallow		Tons weight	Jerked beef		Tons weight
	1888	15.000		1888	26.600
	1889	18.000		1889	42.000
	1890	17.000		1890	43.000
	1891	21.000		1891	40.000
	1892	20.000		1892	45.000
	1893	19.000	1893	41.000	
Bones		Tons weight	Frozen sheep		Tons weight
	1888	40.000		1888	18.000
	1889	28.000		1889	17.000
	1890	39.000		1890	20.400
	1891	39.000		1891	23.200
Bone-ash	1892	29.000	1892	25.400	
	1893	31.000	1893	25.000	
	1891	18.000			
	1892	16.000			
	1893	13.000			

Export of agricultural produce from the Argentine Republic during the past 6 years in round numbers:

YEARS:	WHEAT tons	FLOUR tons	BRAN tons	MAIZE tons	LINSEED tons	LUCERN tons	POTATOES tons
1888	179.000	6.400	1.300	162.000	40.000	9.200	250
1889	22.800	3.400	2.400	433.000	28.000	20.500	360
1890	328.000	12.000	2.900	700.000	31.000	19.000	871
1891	396.000	7.000	6.500	65.000	12.000	30.000	2.800
1892	470.000	19.000	22.000	446.000	43.000	39.000	10.000
1893	1.000.000	38.000	20.000	85.000	72.000	53.500	4.800

The value calculated in gold dollars of goods exported from the Argentine Republic during the past 6 years was:

1888	1889	1890	1891	1892	1893
\$ 100.111.903	90.145.355	100.818.993	99.723.221	112.809.232	92.703.834

This amount is made up for the year 1893 as follows:

Pastoral products.....	gold \$	53.006.157
Agricultural »	»	29.017.405
Industrial »	»	4.769.750
Timber	»	2.251.192
Mineral products	»	362.477
Game.....	»	781.140
Sundry products and articles.	»	4.356.291

The percentage of exports to the principal European countries during the year 1892 was as follows:

France.....	23.4 %
United Kingdom.....	17.4 »
Germany.....	14.7 »
Belgium.....	13.0 »
Italy.....	3.8 »
Spain.....	2.1 »
and to the United States of N. America	4.3 »

Navigation.—The first steamers that arrived in this River were those of the Royal Mail C^o followed by the French Messageries Maritimes and shortly afterwards by the line of Messrs. Lamport & Holt of Liverpool. Up to the year 1870 these lines and a few more that were started progressed very slowly, although the rates of freight were more than double those ruling at present. Since the severe epidemic which made such havoc in Buenos Aires in the year 1871, the trade increased gradually and not only a fair number of sailing vessels arrived yearly but the regular lines of steamers increased their number of sailings. The great drawback to the navigation was the then very deficient state of the so-called port of Buenos Aires where steamers had to lie at a distance of 15/16 miles and most of the sailing vessels at 10/12 miles from the shore. There was at that time no channel dredged and even the Riachuelo was so scantily supplied with water that lighters drawing 7/8 feet were sometimes for weeks prevented from getting out to deliver their cargo to the sea-going vessels in the outer roads. The discharge was exclusively effected into lighters which, apart from the heavy expense incurred by the receiver of the goods, presented the great objection that a considerable portion of the cargo was often broached and pilfered before it reached the shore, claims for which had to be paid by the ship.

Another point, seriously prejudicial to the interests of the underwriters was the fact that many of these lighters were old sailing vessels or steamers of which the machinery had been taken out. Leaky or completely unseaworthy they often arrived with their cargo considerably damaged.

For a long time nothing was done to remedy this serious inconvenience and while Congress was voting subsidies and granting guarantees to railways and other enterprises, no encouragement was given to one of the principal factors of the country's prosperity.

Due to the energy and perseverance of the late lamented Señor Eduardo Madero, the question of building a port was however finally taken up and contracts made with an English firm of Engineers of high standing, who are carrying

out their part of the contract in the most satisfactory manner.

I give herewith a few statistical notes of the navigation with the Argentine Republic during the past 10 years.

		Sailing vessels		Steamers		
		YEAR	NUMBER	TONS	NUMBER	TONS
ARRIVALS	1883	3.445	517.070	3.626	1.437.018	
	1884	5.231	733.659	5.745	2.278.704	
	1885	4.908	771.583	6.671	2.829.726	
	1886	4.727	764.238	6.288	2.751.052	
	1887	5.694	1.010.731	6.607	3.460.870	
	1888	7.558	1.192.852	5.935	3.692.925	
	1889	8.222	1.675.345	6.223	5.036.341	
	1890	6.826	1.288.240	7.047	5.052.715	
	1891	3.496	697.519	7.369	4.577.575	
	1892	2.650	710.122	7.298	5.336.705	
		YEAR	NUMBER	TONS	NUMBER	TONS
SAILINGS	1883	2.263	424.124	3.172	1.318.201	
	1884	2.732	589.269	5.455	2.263.023	
	1885	2.441	600.858	6.549	2.748.803	
	1886	2.697	590.941	5.546	2.562.448	
	1887	3.940	795.623	5.584	2.928.346	
	1888	5.212	1.001.937	5.598	3.317.502	
	1889	5.479	1.264.755	5.990	4.578.217	
	1890	3.676	978.823	5.933	4.527.646	
	1891	2.643	621.088	6.547	4.052.759	
	1892	2.378	660.594	6.864	5.179.070	

It must be remarked that of the above a great many steamers and sailing vessels are engaged in the permanent trade between this country and the Republics of Uruguay and Paraguay.

In order therefore to give a more accurate idea of the navigation of Ocean going vessels I give the respective procedure and destination of the different vessels for the year 1892.

Sailing vessels

Steamers

ARRIVED FROM	NUMBER	TONS	ARRIVED FROM	NUMBER	TONS
Uruguay.....	I.563	I90.606	Uruguay.....	4.496	2.705.769
United Kingdom	294	227.140	Paraguay.....	I.547	946.545
Paraguay.....	245	36.655	United Kingdom	449	690.759
Brazil.....	182	35.192	Brazil.....	250	104.205
United States..	179	119.828	Germany.....	183	279.017
Spain.....	47	21.015	Italy.....	106	197.495
Canada.....	23	13.919	France.....	100	213.047
France.....	19	9.321	Belgium.....	70	97.575
Germany.....	8	5.579	Spain.....	22	26.381
Belgium.....	7	4.407	United States..	20	28.268
West-Indies...	6	2.631	Chili.....	17	28.426
Italy.....	3	1.742	Various.....	38	19.218
Various.....	74	42.087	—	—	—

SAILED FOR	NUMBER	TONS	SAILED FOR	NUMBER	TONS
Uruguay.....	I.206	111.558	Uruguay.....	4.097	2.638.771
United Kingdom	371	246.442	Paraguay.....	I.495	946.778
Brazil.....	301	74.865	Brazil.....	301	154.700
Paraguay.....	149	29.281	United Kingdom	274	430.810
United States..	112	72.206	Germany.....	170	265.921
West-Indies...	64	31.193	France.....	117	233.873
Chili.....	20	19.545	Italy.....	85	160.487
Italy.....	17	7.808	Belgium.....	69	98.728
France.....	12	8.062	Portugal.....	48	59.054
Germany.....	12	6.006	Spain.....	23	31.800
Belgium.....	10	3.506	United States..	3	4.042
Spain.....	4	2.310	Chili.....	3	3.939
Australia.....	3	3.318	Various.....	179	150.167
Portugal.....	1	624	—	—	—
Various.....	96	44.230	—	—	—

Arranged according to nationality the navigation with foreign countries was as follows :

Sailing vessels

Steamers

ARRIVALS	FLAG	NUMBER	TONS	FLAG	NUMBER	TONS
	Argentine...	I.202	II6.877	Argentine....	3.I37	I.555.487
	English.....	440	255.955	English.....	2.388	2.467.927
	Uruguayan..	356	I6.342	Uruguayan...	893	425.298
	Norwegian..	I84	IO2.358	Brazilian.....	379	IO5.518
	Italian.....	II3	57.663	German.....	2I9	320.292
	N. American.	76	50.866	French.....	99	2II.795
	German.....	69	44.328	Italian.....	99	I85.424
	Spanish.....	49	I7.006	Spanish.....	I5	I9.259
	Paraguayan.	48	I.977	Belgian.....	I2	20.832
Swedish....	32	I3.879	Paraguayan..	9	90	
Brazilian....	29	4.500	Swedish.....	7	I.783	
Danish.....	I5	6.92I	Others.....	40	23.430	
Austrian....	I4	8.592	—	—	—	
French.....	8	3.8I2	—	—	—	
Russian....	7	4.428	—	—	—	
Dutch.....	5	4.I54	—	—	—	
Others.....	3	464	—	—	—	

SAILINGS	FLAG	NUMBER	TONS	FLAG	NUMBER	TONS
	Argentine..	I.I00	II8.242	Argentine....	2.989	I.559.I57
	Uruguayan..	284	I3.454	English.....	2.I98	2.408.643
	English....	272	204.600	Uruguayan...	863	387.977
	Norwegian..	I96	IO6.495	Brazilian....	359	IO7.276
	Italian.....	I20	65.309	German.....	I8I	280.439
	N. American.	93	50.3I8	Italian.....	IO2	I84.644
	Paraguayan.	86	3.652	French.....	88	I82.880
	German....	65	36.465	Spanish.....	I5	24.888
	Brazilian...	57	4.893	Belgian.....	I3	2I.445
	Spanish....	45	I5.582	Paraguayan..	8	80
	Swedish....	27	I2.739	Swedish....	7	904
	Danish.....	I8	5.988	Others.....	4I	20.737
	Austrian....	I7	IO.037	—	—	—
	Dutch.....	6	8.304	—	—	—
Russian....	5	2.942	—	—	—	
French.....	4	I.5I3	—	—	—	
Others.....	2	42I	—	—	—	

It must be observed that nearly all the steamers and sailing vessels under the Argentine, Uruguayan and Paraguayan flags, that figure above, have navigated only between the Republics of Uruguay and Paraguay, very few having crossed the Ocean, as is the case with the vessels of other nationalities.

River Navigation. — The two stately affluents of the River Plate, the «Uruguay» and the «Paraná» were but very poorly taken advantage of until some ten years ago, their waters being traversed only by a dozen second-rate steamers and a certain number of sailing craft. The passenger traffic was inconsiderable, people being little in the habit of moving from place to place and the transport of goods between Montevideo or Buenos Aires and the sparsely populated upper provinces had not until then assumed sufficient dimensions as to absolutely call for an increase of the fleet. The starting of a European enterprise for the navigation of these Rivers by fine steamers, provided with excellent passenger accommodation, greatly contributed to develop the trade, and has proved a far greater boon to these countries than to the shareholders of the Company. Not only for a long time past has a daily service been maintained between Montevideo and Buenos Aires realizing the voyage in 8/10 hours, say between sunset and sunrise, but well appointed steamers regularly communicate with all ports of any importance both of the River Uruguay as far as Salto and of the River Paraná and River Paraguay up to Villa Concepcion in Paraguay.

• These steamers run in combination with others of shallow draught which proceed as high as Corumbá and even Cuyabá in the Brazilian States, a distance of 2,000 miles from the mouth of the River Paraná. Goods brought out from Europe for any up-river port not accessible to ocean-going vessels can therefore be transhipped to the River Steamers at Montevideo, Buenos Aires or Rosario and thence conveyed to destination. But besides the passenger and cargo steamers which ply regularly between the different River ports, a very large traffic is engaged in by lighters which transport grain and other produce from the various points of pro-

duction to the anchorage of ocean going vessels or to the ports of Rosario, Buenos Aires and La Plata.

This trade has contributed to solve a serious problem as owners of lighters, by the construction of the artificial port of Buenos Aires, would have found themselves without any employment for their large fleets had it not been for the above mentioned traffic which is both constant and remunerative.

Martin Garcia

Vessels chartered to discharge or load in the Rivers Uruguay or Paraná must pass the Argentine fortress of Martín García situated on an island of the same name in the vicinity of which the passage is obstructed by several sandbanks. Formerly it was considered risky to proceed to the above rivers with vessels drawing more than 16 ft. but 2 years ago another channel was discovered with about 2 1/2 feet of water more than contained in that previously used. The situation of this channel is much nearer the coast of the Uruguay Republic than the other, the entrance when coming from the River Plate being about 7,000 yards from Punta Parada and 2,100 from Punta Antonio Diaz, the former in the direction S. 65° E. and the latter N. 30° E.

The new entrance is distant 3,400 yards from the shore. The depth varies from 19-25 feet at high tide falling to 15 feet at low tide. The current sets in the centre of the channel. The bottom is mostly mud, except for about 400 yards where it is hard sand, the width of the channel at this point being only 50 yards, but in other parts varying from 300 to 750 yards, and is marked by buoys. The work of dredging to a minimum depth of 17 ft. which was proposed by the Argentine Government has not yet been carried out.

The River Uruguay

Opposite Buenos Aires on the coast of Uruguay is the town of Colonia, which does not command any direct trade either import or export, being only visited by lighters or small passenger steamers. It is possible that a Railway will shortly connect Colonia with Montevideo, thus diminishing the duration of the journey between Buenos Aires and the Capital of Uruguay, rendering Colonia of more importance than it is at present.

Following after Colonia come the ports of Carmelo, Higuieritas or Nueva Palmira, Soriano, and Mercedes, of which none are of any interest except for river traffic.

Fray Bentos is the first port of any importance that sea-going vessels make in the river Uruguay, and the only one to which steamers of a certain draught can count upon arriving in safety. Fray Bentos lies on the Uruguay side of the river and owes its importance to the factory of Liebig's Extract of Meat Co. which is there established.

There is plenty of water in the port both for steamers and sailing vessels that can cross the bar of Martín García, but river steamers anchor nearer the shore in only 12 or 15 feet, passengers and cargo being embarked or landed by means of boats or small lighters.

During the year 1893 forty four sea-going vessels, viz : 6 steamers and 38 sailers arrived bringing coals, salt or materials for the factory, and nearly all discharged their cargoes alongside the two moles which are provided with steam-cranes and where there is always a depth of 25 feet of water. Vessels load there salted and dry hides, tallow, casks or cases of extract of meat, meat-meal, horns, etc.

Paysandú is the next port and the last on the Uruguay side accessible to sea-going vessels and only to those drawing less than 14 feet, as although the port has a depth of 18 feet of water, the bar of Almiron lying immediately below does not allow those of greater draught to cross and obliges them to discharge their cargoes into lighters or to receive such below the said bar from craft sent from Paysandú. The principal direct foreign imports consist of lumber, coals and salt, and vessels that reach the port may discharge at the different moles belonging to the consignees. Those loading produce from the saladeros established at Paysandú sometimes commence loading in the port and drop down below the bar to complete, where likewise all vessels are anchored that receive cargo from saladeros established in the neighbouring ports on both sides of the river.

Ocean-going vessels do not proceed to ports in the Uruguay higher than Paysandú, but almost a daily service of River Steamers is maintained between Montevideo, Buenos Aires and the ports of Concordia on the Argentine side and Salto, on the Uruguay side of the River. During certain months of the year small steamers proceed as high as Uruguayana and even Santo Tomé or Garruchos, but this navigation is of little importance.

The ports on the Argentine bank to which vessels sometimes proceed are *Guauguaychú* and *Concepción del Uruguay*, but cargo from the saladero (slaughter-yard) at Colon is often taken on board at the Almiron bar, although the vessels must give entry in the custom-house at Colon.

Vessels bound for the first-named port anchor off Fray Bentos owing to the scarcity of water at the mouth of the river leading to Guauguaychú. Cargo is shipped in lighters.

Concepción del Uruguay.—A small town likewise in the province of Entre Ríos on the banks of the River Uruguay.

The port is made up of 3 parts, one exterior on the River and two interior.

For the past ten year a mole has been in course of construction but has not yet been completed. At the end, as far as it is concluded, there is a depth of 10/11 ft. of water and vessels of about 400 tons can load at the mole. Cargo is conveyed into the ship's hold by shoots conducting from the railway trucks which run on to the pier. Ocean-going vessels drawing more than 11 ft. lie off at a distance of 600 yards from the shore, and loading and discharge is done by lighters.

There will be a depth of 19/20 ft. of water at the extremity of the mole when finished.

Wharfage dues in the outer port are:

2	cents.	paper	for	national	vessels
2	»	gold	»	foreign	»

No dues are paid in the inner ports, the older of which is accessible to vessels drawing 12 ft. while the new port is practicable only for vessels drawing 9 ft. or less.

About 80/100 tons of grain daily can be loaded into vessels working with two shoots.

The River Paraná

On looking at the map of the River Plate one would imagine that the first place for a vessel leaving Buenos Aires for the River Paraná to arrive at, would be Campana followed by Zarate and Baradero.

Such, however, is not the case. Owing to the scarcity of water in the numerous branches of the Paraná which form a delta at the mouth where it falls into the Plate, the only affluent that can be used by deeper vessels is the «Guazú» which leads to the main river close below the town of San Pedro. Vessels bound for the above mentioned ports must therefore turn back, while others proceed up the Paraná to the upper ports in the following order: San Pedro, Ramallo, San Nicolás, Villa Constitucion, Rosario, Puerto Borghi, San Lorenzo, Diamante, Santa Fé, Colastiné, Paraná. Here end the usual loading places for steamers but smaller vessels sometimes proceed much higher up the River to Santa Elena, La Paz, Esquina, Goya, Bella Vista and Empedrado. In the last named port a few sailers used formerly to load quebracho wood for Europe but the present facilities for bringing down cargo in steam barges and lighters at very moderate rates have tended to diminish the importance of these ports for seagoing vessels, the sole exception being Santa Elena where Kemmerich's Extract of Meat Factory, rivalling that of Liebig, is established.

The last Argentine port of note in the Paraná is Corrientes. At a short distance above this town the River Paraguay runs into the Paraná and continues for hundreds of miles to be navigable for small vessels, running through Paraguay to the interior of the Brazils, while the Paraná branches off to the East dividing the Paraguayan Province of Misiones from the Argentine Province of the same name and later on forming a boundary between Paraguay and the Brazils.

Towage in the river.—There is no fixed tariff, same depending on special arrangement and whether the vessel is in ballast or with cargo, also whether it happens that there are more vessels to be towed up at the same time or the tug be required to bring other ships down the River immediately afterwards.

The following may be taken as a guidance:

To pass Martín García bar.....	£ 20/30
Vessels of 18 ft. to Rosario and back ...	» 90
» » Colastiné » » ...	» 110
» » Santa Elena » » ...	» 130

Pilotage.—With regard to *Pilotage* in the River, charges vary according to circumstances. Thus some of the regular steamship lines pay more for pilotage than tramp steamers, the former preferring to retain pilots that have been in the service of the respective companies for a long period and earned the confidence of the Masters, while outside pilots are frequently willing to accept lower terms in order to secure a vessel, especially when there is little demand for their services.

The rates given below may be considered a fair average of the prices paid for steamers:

To Rosario and back.....	£ 18/20
» San Lorenzo and back.....	» 20/25
» Diamante » »	» 25/30
» Colastiné » »	» 30/35
» Santa Elena » »	» 40/50

For sailing vessels the usual rate is :

To Rosario and back.....	£ 30
Higher up the River and back.....	> 35/40

but if towed up, the rate is considerably reduced.

Campana.—This port was formerly of more importance than at present owing to its having been the terminus of a Railway, by which in combination with steamers, passengers and cargo were carried further on to Rosario, but since the opening of railways direct to the latter town this traffic has been lost to Campana.

Vessels can load in this port to a depth of 20 ft. Loading and discharge are effected at the moles of which there are:

4 belonging to the Port of Campana Co.

1 » » Central Argentine Railway Co.

1 » » The River Plate Fresh Meat Co.

And 4 others the property of private individuals.

Ocean going vessels generally go alongside the Railway and Meat Companies' moles, the others being of slight importance.

Lighters are not required.

Steamers load from 1500/2000 and sailers about 1000 bags of grain daily.

Masters are obliged to employ one of the two port pilots. The tariff is \$ 20 paper for taking vessels in and out of port and \$ 10 paper for each movement or shift of position.

Ballast is discharged into waggons and if done by the ship's crew there is no charge. The cost of same for loading is \$ 2.60 paper per ton placed alongside.

Imports consist only of coal and materials for the Railway and Meat freezing establishment while the direct export of grain from this port is decreasing, such being for the most part brought down to Buenos Aires and La Plata in lighters for shipment to Europe. Produce from the Meat freezing establishment forms the staple export from here. 21 ocean going vessels visited this port during the year 1893.

Zárate. — Vessels can load alongside the various moles to a depth of 17/18 feet and at the rate of 3000 bags daily in fine weather.

A charge of \$ 20 is made for port pilot whether his services be engaged or not.

Cost of discharging ballast is \$ 1.00, paper, per ton and for loading same \$ 2.00 per ton.

During last year 31 Steamers visited this port, 18 with cargo and 13 to load, also 11 sailing vessels, 9 with cargo and 2 to load.

A meat freezing establishment called the Las Palmas Produce Co. has been working here for some years, the produce from which forms the principal export from Zárate, and imports consist for the most part of material and coals for the paper factory here established. Grain is generally brought down to Buenos Aires in lighters.

San Pedro.—Ocean going vessels anchor in the River Paraná where there is great depth of water. There is a kind of inner port formed by an estuary, and when the river is high steam lighters drawing 14 ft. can enter in order to load from the shoots, of which there are six, corresponding to the various deposits or warehouses. The lighters then transfer their cargo to the vessels in the river. The lighters can load about 100/150 tons daily from one shoot and the discharge of coal is more or less at the rate of 50 tons per day. There is no port pilot here nor is there any need of the services of one.

• Ballast (sand) is discharged into lighters and landed on an island, close to which vessels anchor, at a cost of \$ 3, paper, per ton. The charge for loading ballast is \$ 5, paper.

Nine steamers loaded here during the year 1893 and some 22,000 tons of grain were shipped hence in lighters to Buenos Aires and La Plata.

There is a distillery here and several deposits for baling wool.

Baradero.—Consists of two ports—upper and lower, of which the former is the port of San Pedro. Only lighters of shallow draught can enter, the cargo from which is transhipped in the river.

Puerto Obligado, formerly called Ramallo. Grain is loaded from shoots directly into ships' hold, but this port at present affords little convenience for ocean-going vessels.

Gualeguay.—A small town in the province of Entre Rios situated on the River of the same name which flows into the Paraná.

Ocean-going vessels anchor at the mouth of the Gualeguay river whence the distance to the town is about 32 miles by water or 9 by land and close to which there are established two saladeros.

Exports during the past year comprised some 300,000 bags of cereals, dry hides and wool and the products from 60 to 70,000 animals slaughtered in the two yards above mentioned. Six vessels arrived with salt and loaded jerked beef and hides.

Vessels can load here up to a draught of 18 ft. and despatch depends upon the number of lighters available, for which at present there is a lively demand to load wheat for Buenos Aires and La Plata. There are no facilities for discharging or taking in ballast.

San Nicolás.—There is always more water in this port than at the Martin Garcia bar and vessels, when the river is normal, can load to a depth of 18/20 ft.

Discharge is carried out by means of lighters, and loading, by shoots from the shore at the rate of 400/500 tons daily.

There is no necessity for a port pilot, but \$ 20 paper is charged whether one be employed or not.

Ballast is generally given to the lightermen which they then discharge free of cost. For loading it can be obtained cheaper than in Buenos Aires or Rosario.

Imports consist principally of railway material and coal while exports comprise grain, wool, hides, sheepskins, bones and bone-ash.

During the year 1892/93 this port was visited by 40 steamers and 17 sailing vessels bringing cargo and by 140 steamers and 31 sailing vessels that came to load.

Some 150,000 tons of grain, 15,000 bales of wool and 5000 bales of sheepskins were exported during that year.

Villa Constitucion.—The construction of a Railway from the town of Carlota in the province of Córdoba to the above port, the terminus of the line, 35 miles below Rosario on the River Paraná, has greatly increased the facilities for the export of the heavy grain crop from this Province and that of Santa Fé, besides rendering Villa Constitucion a place of considerable importance and of increasing interest to the shipping community. This line—the Santa Fe and Córdoba Great Southern Railway—forming a junction at Carlota with the Villa María and Rufino Railway which connects the Pacific and Central Argentine systems, has proved a success and already a concession has been asked for, to construct the first proposed branch from San Eduardo to Rufino, a distance of 76 kilometres, which will link it to the Pacific Railway. After this and as soon as further capital can be raised, the main line will also be extended from Carlota to Río IV on the Andine Railway and there is a possibility if not of amalgamation, at least of bringing the Western Santa Fé line, with which a junction will be made at Melincué, under the same management. These extensions serve a zone of as good a wheat producing country as any in the Argentine Republic and cannot but lend great additional impulse to the port of Villa Constitucion.

Large ocean going vessels can load here and last year when the river was very low, steamers loaded at Rosario to a draught of 15 ft. 3 in. completing at Villa Constitucion to a depth of 18 ft. 6 in. and upwards, one ship actually loaded to 24 ft. but was of course obliged to lighten at Martín García bar.

There are two bad passes «Alvear» and «Paso Paraguay» or «Montiel» between Rosario and Villa Constitucion.

The Railway Company has a mole supplied with accessories and cranes of a lifting capacity of 5 tons, alongside which steamers and sailing vessels can unload.

The grain Elevator with storage for 10,000 tons was burnt down last year. It is not the intention of the Railway Company to replace it at present but 4 large sheds with sufficient storage for 14 to 16,000 tons of grain are

being erected, 2 of which are completed and the other two will be ready for the grain season of 1894/95.

Lighters are not needed for purposes of discharge. Vessels can unload at the mole and the Barracas simultaneously and the rate of discharge, say for coal, averages: steamers 150 tons per day, and sailers, 100 to 130 tons per day, one crane being used. Six or eight steamers or ocean-going vessels can load at the same time and receive 7,000 to 8,000 bags daily, working with one shoot, but despatch depends rather upon the number of stevedores engaged as the fixed shoots and elevators of the Railway Company offer advantages such as are scarcely possessed by any other port in the country.

There is no necessity to engage a pilot but a charge of \$ 20 is made whether one is employed or not.

Ballast is discharged directly on to Railway waggons, the Company charging \$ 1 paper per ton for the discharge.

In view of the yearly increasing movement of this port the Company have planned the construction of a dock with accommodation for 8/10 ocean-going vessels.

Beyond the port pilotage above mentioned and the ordinary Custom-House fees there are no charges as mole dues are not paid by vessels when the cargo loaded or discharged passes over the Railway.

For those discharging or loading goods not carried by the Railway, mole dues are charged at the rate of 25 cents., gold, per working day for every 50 tons register or fraction thereof, to count from the day the vessels comes alongside.

The chief imports are coals and railway material. 120,000 tons of wheat, 25,000 tons of maize and 14,000 tons of linseed more or less will, it is reckoned, go forward from Villa Constitucion this year while already 16 ships and 38 steamers have loaded 44,000 tons of wheat and a further large quantity has left in lighters.

Rosario.—The second town in importance in the Argentine Republic and the key to the upper Provinces, is constantly progressing by reason of its splendid situation

in the wheat-growing province of Santa Fé and will doubtless progress more rapidly when the obstacle presented by the bar of Martín García be once removed and the bad passes dredged, thus enabling vessels of great draught to proceed direct to this port. Until some 15 years ago the port was deprived of all facilities for the discharge and loading of vessels which operations were exclusively carried out by means of lighters. About that time the Central Argentine Railway Company built a mole for the purpose of discharging their material direct from the ships but only goods consigned to the Railway are allowed to be landed at that mole. A few years later the owners of the Gas Works, situated at the entrance to the port, obtained permission to build wharves, not only for vessels bringing materials to the Works but for general commercial use. This wharf and adjoining warehouses rendered valuable service for several years in the same way as two others constructed by the owner of adjacent lands, until the Government decided to make a port in Rosario, entrusting the construction thereof to a private concern. Although only one wharf is ready so far where at most three steamers can lay alongside simultaneously, permission has been withdrawn from all private wharves to discharge vessels with general cargo, this operation being exclusively reserved for the Government mole and depôts. As these are situated in the vicinity of a sand-bank and in a place which is not easily accessible when the River is high, vessels often suffer serious delays and have to discharge into lighters which convey the cargo to the Government warehouses. The expense of lighterage in such cases falls on the cargo.

Railway material and heavy machinery may be unloaded at the Railway moles, otherwise the discharge of general cargo is concentrated at one place. Loading operations, however, are not thus restricted being effected along the River bank in front of the deposits of the different merchants, or at moles, the property of private individuals or of a company such as the Sugar Refinery. Coals coming to the latter concern are discharged at its own mole. In the

accompanying sketch are shown the various loading places, at all of which there is good depth of water. Due to the height of the river-banks a special system has been invented to convey the cargo on board. When the steamer is safely moored alongside the bank, two strong wire ropes placed half a yard apart are brought from the shore and made fast to the hatch into which the cargo is to be loaded.

The other ends having been tightly fastened at the top of the bank, small shoots made of board, six feet long and half a yard wide, provided with hooks at the sides, are allowed to slide down on the wires. As many of these shoots as are necessary to establish the communication are then let down, all fitting together and joining perfectly. The bags of wheat are thrown into the shoots and glide down into the holds of the vessels.

When the cargo is ready, the wheat classified and the bags weighed, the loading is effected with rapidity and one merchant can, with two shoots, load up to 10000 bags or say 600 tons per day. Few however will guarantee to load more than 150/200 tons daily as all the cargo is often not available, the Railways bringing the wheat down very slowly due to want of sufficient rollingstock. Owing to the hurry with which the bags are thrown into the ship's hold and the poor quality of sackcloth of which they are made, a great many of them burst, rendering it advisable for Masters to make the necessary statement in order to save their responsibility.

Vessels bound for Rosario, once across Martín García bar, meet with no serious difficulty on the passage, until reaching Paso del Paraguay in front of Villa Constitución and Paso de Alvear, distant about half an hour from Rosario and where there are sometimes only 14 feet of water. On arrival at Rosario anchor is dropped in front of the Gas Works where vessels are visited. Admitted to free pratique the harbour pilot takes charge of the ship and brings her alongside the corresponding wharf. The entry at the Custom-house must be performed within 48 hours after arrival. Within this time Masters of sailing vessels may correct any mistake

made in the manifest or store-list while steamers may make any necessary rectification as long as there is cargo on board. This facility often saves vessels from serious fines and confiscation of goods. Any cargo discharged which does not appear in the manifest and which cannot be satisfactorily accounted for, is confiscated and sometimes a fine imposed on the ship. If she turns out less than the quantity manifested, the fine is \$ 20 gold for each package short. When the vessel is discharged the port pilot must take her to loading berth or, if she leaves in ballast, to the confines of the Port.

Port expenses :

Pilotage in port.....	\$ 30	paper
» mooring.....	» 15	»
» outwards.....	» 30	»
Tallyclerk for steamers, per ton.....	» 0.15 cts.	»
Boathire etc.		

Mole-dues in Rosario:

Vessels up to 100 tons reg.	\$ 0.09 cts.	paper
per day for every 10 tons or fraction of 10 tons.		
Vessels of more than 100 tons reg.....	\$ 0.04	» »
per day for every 10 tons or fraction of 10 tons above 100.		

The difference in outward freight between Buenos Aires and Rosario has lately been 2/ — but as most vessels are now loaded up River where expenses are not so heavy it is likely that owners will see an advantage in accepting, if not the same rate, not more than 1/ — increase.

For homeward freights there is a difference of as much as 8/—, as merchants distinctly prefer to load directly on board the vessel instead of having to tranship from lighters. This difference is likely to be somewhat modified, however.

Sailing vessels from Buenos Aires for Rosario sometimes engage a tug in order to avoid the delay in the Rivers, where the tide runs as a rule at the rate of 3 or 4 miles an hour, besides the corresponding risks of navigation.

Cost of a tugboat from Buenos Aires to Rosario for a

vessel of about 500 tons, if in ballast, is about £ 35/40 and £ 50/60 if loaded, but then the pilotage is considerably less.

Puerto Borghi, or *Puerto Canaletas*, is a loading place close to Rosario and may be considered as forming part of that port. The high banks of the river render it necessary for vessels to load from shoots of which there are one fixed and 3 moveable for loading grain and 3 for loading quebracho.

This wood, which is sent down in large quantities from the Chaco, is cut into logs weighing up to 2 tons and let down into the ships' hold on two strong wire ropes, the log supported in the centre by a species of hook.

40 to 45 tons of quebracho can be loaded daily and 300 to 350 tons of grain.

Vessels can load to a draught of 18 to 30 ft. and at the wharves there is a depth of 22 to 24 ft. of water. The port pilot of San Lorenzo takes charge of vessels here.

There are two deposits, one of which belongs to the French Railway Company.

Ballast can be discharged at a cost of from \$ 1 to \$ 2 paper per ton.

San Lorenzo, also called Puerto San Martin.

Loading is effected by means of shoots on account of the high river banks.

At the «Ledesma» and «General Roca» moles there is a depth of 25 ft. of water. Cargo is brought on trollies from the respective deposits to the shoot.

At the «Kirk» mole there are 40 ft. of water and two steamers can load simultaneously.

There are two shoots one of which receives the cargo direct from the railway waggons and the other from the trolley running from the deposits.

From 250 to 300 tons can be loaded daily.

At the Cerana mole there is a depth of 25 ft. of water.

A railway line runs on to this mole bringing grain from the interior whence it is taken on trollies to the shoot, which has three arms.

500 tons, more or less, can be put on board daily and the electric light enables work to be done at night.

The store has a capacity of 25,000 bags.

The services of a port pilot are obligatory and a charge of \$ 10 is made for each movement.

There is no Custom-house, but a detachment of the Rosario Coast-guard is stationed here.

A ship-broker combining the duties of a Custom-house despatcher clears vessels direct for Europe without the necessity of their first calling at Buenos Aires.

Ballast is discharged into lighters at a cost of \$ 1.00 paper per ton.

In front of San Lorenzo is the pass of the same name where, when the river is low, there is a depth of only 15 to 16 ft. which often prevents vessels from loading alongside the moles.

Puerto Gomez is another place for shipping grain situated a little above San Lorenzo, but of slight importance.

Diamante. — Ocean-going vessels of heavy draught can enter this port and load alongside a private mole from a shoot leading from the grain deposit.

With the exception of an occasional shipment of hay, the sole export from this port is grain, which can be loaded at the rate of about 400 tons daily. Discharge is slower and averages 100 tons, more or less, daily, depending on the number of vessels in the port.

• There is no need of the services of a port pilot. Ballast is discharged outside in the river. Some 30,000 tons of wheat were exported hence during the past year, a portion of which were loaded in 9 sailing vessels and 3 steamers, the remainder going forward in lighters to other ports for shipment to Europe. This port is rapidly increasing in importance owing to the numerous and flourishing wheat-colonies established in its vicinity.

A concession has been granted to a private individual to collect from vessels 2 cents. (paper) per ton d. w., for mooring; otherwise there are no port charges.

Santa Fé. — Vessels drawing from 14/15 ft. can load here at all times but no sea-going vessel ever proceeds to Santa Fé owing to the difficult navigation of the small River leading to the town, and both steamers and sailers remain at the mouth of the River, where it falls into the Paraná. The real port of Santa Fé, however, is

Colastiné — 12 miles distant, situated on the river and where ocean-going vessels loaded to a depth of 22 to 23 ft. can at all times go in and out. Loading and discharging facilities are good and vessels are moored alongside a mole constructed especially for this purpose. When the river is in flood the port of Colastiné is not always accessible, being under water. A large quantity of grain has been loaded this year in Colastiné, and the French Railway Company, a narrow gauge line, conveys the bags in trucks on to the mole whence they are loaded into ships' hold, or cargo is brought in lighters from other small river ports.

Paraná, — the capital of the province of Entre Rios, is situated on a height overlooking the river of the same name. The port leaves much to be desired and only steamers and lighters not drawing more than 6 feet can approach the mole owing to two banks that obstruct the access. Apart from a rather lively traffic of passengers and cargo by the river steamers, the town of Paraná is noted for its export of chalk. Nearly all the wheat from the neighbouring colonies which is sent forward by ocean-going vessels is exported from the port of Bajada Grande, in the immediate vicinity of Paraná, and where the Railway Company has two moles, one of them provided with hydraulic cranes capable of lifting the heavy machinery imported by the colonists. The other mole is principally used for the embarkation of wheat and vessels with a draught of up to 25 ft. can lay alongside. Several grain exporters in Buenos Aires have their deposits here connected by piers to enable vessels to load, and up to 400 tons can be put on board in a day. During the first four months of this year about 30,000 tons were shipped from this port.

There are no real port-charges and no port-pilot is required. The Agent of the shipper generally transacts Custom-house business without any charge.

A strong current often sets in the River close to this port and vessels should have a second anchor ready to put out in the advent of a gale.

Santa Elena. — One of the furthest ports in the River Paraná visited by ocean-going vessels, is of trifling importance, owing its commercial existence almost exclusively to the fact of Kemmerich's extract of meat factory being there established.

It is only accessible for vessels drawing 14/16 feet and the produce from the factory is loaded alongside the moles.

There are no port charges and the expenses of a vessel of 500 tons average from \$ 80/100 paper. Ballast (sand) can be obtained at \$ 1 paper per ton f. o. b.

Sailing vessels should be towed up to Santa Elena owing to the river being narrow and the very strong current.

Although as previously stated, sea-going vessels rarely proceed higher up the Paraná, a few details about the traffic by river steamers not only in the two great affluents of the Plate, viz. the Paraná and Uruguay, but also in the Alto Paraná and Alto Uruguay, as well as along the coast, may prove of interest.

To this end I add tables of distances between the different ports of call for steamers, also fares and rates of freight for the most general articles of import and export. The prices are those actually charged by the La Platense Flotilla Co. (in liquidation) and are subject to alteration according to circumstances.

River Paraná

Distances in miles

Buenos Aires																		
129	San Pedro																	
163	34	San Nicolás																
202	73	39	Rosario															
261	132	98	59	Diamante														
294	165	131	92	33	Paraná and Santa Fé													
347	218	184	145	86	53	Hernandarias												
391	262	228	189	130	97	4	La Paz											
435	306	272	233	174	141	88	44	Esquina										
487	358	324	285	226	193	140	96	52	Mal Abrigo									
521	392	358	319	260	227	174	130	86	34	Goya								
575	446	412	373	314	281	228	184	140	88	54	Bella Vista							
625	496	462	423	364	331	278	234	190	138	104	50	Empedrado						
655	526	492	453	394	361	308	264	220	168	134	80	30	Corrientes					
693	564	530	491	432	399	346	302	258	206	172	118	68	38	Humaitá				
713	584	550	511	452	419	366	322	278	226	192	138	88	58	20	Villa del Pilar			
749	620	586	547	488	455	402	358	314	262	228	174	124	94	56	36	Formosa		
825	696	662	623	564	531	478	434	390	338	304	250	200	170	132	112	76	Villeta	
845	716	682	643	584	551	498	454	410	358	324	270	220	190	152	132	96	20	Asunción

FARES

Buenos Aires	to	San Nicolás.....	\$	16	paper
»	»	Rosario.....	»	20	»
»	»	Diamante.....	»	24	»
»	»	Paraná and Santa Fé.....	»	28	»
»	»	Hernandarias.....	»	44	»
»	»	La Paz.....	»	48	»
»	»	Esquina.....	»	62	»
»	»	Mal Abrigo.....	»	72	»
»	»	Goya.....	»	82	»
»	»	Bella Vista.....	»	102	»
»	»	Empedrado.....	»	110	»
»	»	Corrientes.....	»	118	»
»	»	Humaitá.....	»	124	»
»	»	Villa del Pilar.....	»	132	»
»	»	Formosa.....	»	140	»
»	»	Villeta.....	»	150	»
»	»	Asunción.....	»	150	»

South Coast line

Buenos Aires		<i>Distances in miles</i>
534	Bahia Blanca	
648	114	Patagones

FARES

Buenos Aires	to	Bahia Blanca.....	\$	30	paper
»	»	Patagones.....	»	60	»

River Uruguay

Buenos Aires		<i>Distances in miles</i>							
33	Martín García								
56	23	Palmira							
86	53	30	Mouth of River Negro						
108	75	52	22	Fray Bentos					
155	122	99	69	47	Concepción del Uruguay				
168	135	112	82	60	13	Paisandú			
175	142	119	89	67	20	7	Colón		
236	203	180	150	128	81	68	61	Concordia	
239	206	183	153	131	84	71	64	3	Salto

FARES

Buenos Aires to	Martín García.....	\$ 2.00	gold
»	» Palmira.....	» 4.00	»
»	» Mercedes.....	» 8.50	»
»	» Fray Bentos.....	» 6.00	»
»	» Gualeguaychú.....	» 7.00	»
»	» Concepción del Uruguay...	» 7.00	»
»	» Paysandú.....	» 7.00	»
»	» Colon.....	» 8.00	»
»	» Guaviyú.....	» 8.00	»
»	» Puerto Pacheco.....	» 8.00	»
»	» Yerúa.....	» 8.00	»
»	» Concordia.....	» 8.00	»
»	» Salto.....	» 8.00	»

The fares to Mercedes and Gualeguaychú include transshipment into, and continuation of journey by, smaller steamers.

River Alto Paraná

DISTANCE IN HOURS

Distance from Buenos Aires to Corrientes 655 miles

Corrientes					
3	Paso de la Patria				
6	3	Itatí			
16	13	10	Itá Ibaté		
24.75	21.75	18.75	8.75	Ituzaingó	
25.25	22.25	19.25	9.25	0.50	Villa Encarnación
25.75	22.75	19.75	9.75	1.00	0.50 Posadas

FARES

•	Corrientes to	Paso de la Patria.....	\$	4	paper
	»	» Itatí.....	»	7	»
	»	» Itá Ibaté.....	»	12	»
	»	» Ituzaingó.....	»	19	»
	»	» Villa Encarnación.....	»	30	»
	»	» Posadas.....	»	30	»

River Alto Paraguay

DISTANCES IN TIME

Distance from Buenos Aires to Asunción 845 miles

Asunción					
2	Villa Hayes				
4	2	Olivares			
10	8	6	Villa Rosario		
12.10	10.10	8.10	2.10	Barranquerita	
15.40	13.40	11.40	5.40	3.30	Potro Pará
20.40	18.40	16.40	10.40	8.30	5 Villa Concepción

FARES

Asunción	to	Villa Hayes.....	\$ 5 paper
»	»	Olivares.....	» 10 »
»	»	Villa Rosario.....	» 15 »
»	»	Barranquerita.....	» 20 »
»	»	Potrero Pará.....	» 25 »
»	»	Villa Concepción.....	» 30 »

Cargo rates—River Paraná

General cargo—up river.

Montevideo to:

Buenos Aires.....	conventional.
Rosario.....	\$ 7.00 paper.
Diamante.....	8.00 »
Paraná.....	8.00 »
La Paz.....	10.00 »
Esquina.....	10.00 »
Goya.....	11.00 »
Bella Vista.....	12.00 »
Corrientes.....	13.00 »
Las Palmas.....	13.00 »
Formosa.....	14.00 »
Asunción.....	14.00 »

Buenos Aires to:

Rosario.....	\$ 6.00 paper.
Diamante.....	7.00 »
Paraná.....	7.00 »
La Paz.....	9.00 »
Esquina.....	10.00 »
Goya.....	10.00 »
Bella Vista.....	11.00 »
Corrientes.....	12.00 »
Las Palmas.....	12.00 »
Formosa.....	13.00 »
Asunción.....	13.00 »

Rosario to:

Diamante.....	\$ 5.00	paper.
Paraná.....	5.00	»
La Paz.....	6.00	»
Esquina.....	8.00	»
Goya.....	8.00	»
Bella Vista.....	9.00	»
Corrientes.....	10.00	»
Las Palmas.....	10.00	»
Villa Pilar.....	12.00	»
Formosa.....	12.00	»
Asunción.....	12.00	»

Paraná to:

La Paz.....	\$ 5.00	paper.
Esquina.....	6.00	»
Goya.....	7.00	»
Bella Vista.....	8.00	»
Corrientes.....	9.00	»
Las Palmas.....	9.00	»
Villa Pilar.....	10.00	»
Formosa.....	10.00	»
Asunción.....	10.00	»

La Paz to:

Esquina.....	\$ 5.00	paper.
Goya.....	6.00	»
Bella Vista.....	7.00	»
Corrientes.....	8.00	»
Las Palmas.....	8.00	»
Asunción.....	10.00	»

Esquina to:

Goya.....	\$ 5.00	paper.
Bella Vista.....	7.00	»
Corrientes.....	7.00	»
Las Palmas.....	7.00	»
Asunción.....	9.00	»

Goya to:

Bella Vista	\$ 5.00	»
Corrientes	6.00	»
Las Palmas.....	6.00	»
Asunción.....	9.00	»

Bella Vista to:

Corrientes	\$ 5.00	paper.
Las Palmas.....	5.00	»
Asunción.....	7.00	»

Corrientes to:

Asunción.....	\$ 6.00	paper.
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An extra charge of \$ 2 is made on cargo from Santa Fé to any port of the Rivers Paraná or Paraguay and of \$ 4 on cargo for Reconquista; on packages exceeding 1 ton, weight or measurement, special freight will be charged.

For maní (pea-nuts) between Resistencia and other ports the rate is \$ 0.18 per 10 kilos.

Down River

Asuncion, Pilar, Formosa to Buenos Aires

Without lighterage, 1 arroba ⁽¹⁾ ground yerba.	\$ 0.16	paper
» » 1 » yerba in leaf.	» 0.18	»
» » 1 » tobacco.....	» 0.20	»
» » Fruit per 10 kilos.....	» 0.24	»
With » 1 cow hide or tanned hide.	» 0.24	»
Without » 1 salted cow hide.....	» 0.30	»
» » 1 horse skin.....	» 0.24	»
With » 1 dried horse skin.....	» 0.18	»
Without » Sugar or alcohol.....	» 10.00	»

(1) An «arroba» is equivalent to 11 1/2 kilos.

Las Palmas and Corrientes to Buenos Aires

Without lighterage,	ground yerba per 10 kilos.	\$ 0.16	paper
»	» Yerba in leaf.....	» 0.18	»
With	» Fruit.....	» 0.24	»
Without	» Tobacco.....	» 0.20	»
With	» 1 cow hide or tanned hide.	» 0.24	»
Without	» 1 salted cow hide.....	» 0.30	»
»	» 1 horse skin.....	» 0.24	»
With	» 1 dried horse skin.....	» 0.18	»
Without	» Sugar or alcohol.....	» 8.00	»

Bella Vista, Goya, Esquina, La Paz to Buenos Aires

With lighterage	{	1 dried cow hide or tanned	
		hide.....	\$ 0.20 paper
		Fruit per 10 kilos.....	» 0.20 »
Without lighterage	{	1 dried horse skin.....	» 0.15 »
		1 salted » ».....	» 0.24 »
		1 cow hide.....	» 0.30 »
		Tobacco per 10 kilos.....	» 0.20 »
		Sugar or alcohol.....	» 8.00 »

Paraná and Diamante to Buenos Aires

Without lighterage,	1 dried or tanned hide...	\$ 0.18	paper
»	» Fruit per 10 kilos.....	» 0.18	»
With lighterage	{	General cargo.....	» 6.00 »
		Cereals (conventional).	
		1 salted cow hide.....	» 0.28 »
		1 » horse skin.....	» 0.22 »
		1 dried » ».....	» 0.12 »

Rosario to Buenos Aires

With lighterage,	1 dried or tanned hide...	\$ 0.18	paper
Without	» General cargo.....	» 6.00	»
With	» Fruit per 10 kilos.....	» 0.18	»
Without	» Cereals (conventional).		
»	» Sugar or alcohol.....	» 6.00	»

Asuncion and River ports to La Paz and Montevideo

Without lighterage	{	1 cow hide or tanned hide. \$ 0.08 paper
		1 salted hide..... » 0.10 »
		1 » horse skin..... » 0.08 »
		1 dried » » » 0.06 »
		1 arroba ground yerba... » 0.07 »
		1 » yerba in leaf... » 0.08 »
		1 » tobacco » 0.07 »
		Fruit per 10 kilos..... » 0.08 »
		Sugar or alcohol..... » 4.00 »

Paraná and Rosario to Montevideo

Without lighterage	{	1 cow hide or tanned hide. \$ 0.06 paper
		Fruit per 10 kilos..... » 0.06 »
		1 salted hide..... » 0.10 »
		1 dried horse skin..... » 0.04 »
		1 salted » » » 0.08 »
		10 kilos tobacco..... » 0.07 »
		10 » ground yerba... » 0.07 »
		10 » yerba in leaf... » 0.06 »
		General cargo..... » 3.00 »
		Sugar and alcohol..... » 3.00 »

On cargo from Santa Fé the extra freight is charged together with lighterage to Paraná. When cargo destined for the deposits in the South Basin has to be lightered, such lighterage is for account of the cargo.

The Coast

Up to a few years ago there was not a single artificial port on the whole East Coast of South America and excepting Santos, where lately a mole provided with some sheds has been erected, the ports of Buenos Aires and La Plata are the only ones where art has assisted Nature to any great extent. Fortunately these countries, especially the Argentine Republic, have been greatly favored by Nature and there are to be found along the coasts many inlets and mouths of Rivers which form natural harbours, some of them spacious and easily accessible. Sparse population and the lack of commerce, however, have militated against any attempt at improvement being made in their original condition.

Although some of these inlets are partly under the shelter of the land they do not always afford an absolutely safe anchorage owing to the prevailing strong winds from E. S. E. and even landing in boats can not always be effected without incurring serious risk. The most southerly port in the Argentine which commands any trade with sea-going ships, although in a very limited sense, is Carmen de Patagones at the mouth of the Rio Negro.

The different inlets such as Villarino, San José, Chubut, Puerto Deseado, Santa Cruz, Coy Inlet and Puerto Gallegos, which are situated between Carmen de Patagones (latitude S. 40°50') and Cape Virgins (latitude S. 52°20'10") are only rarely visited by coasting vessels in the Government service employed in the transport of provisions and necessaries for National officials residing there and have not yet acquired any interest for commerce or navigation except in so far as they may serve as a temporary shelter for

sailing vessels that have suffered damage to hull or rigging while rounding Cape Horn in the strong gales generally prevailing in those latitudes.

La Plata. — When in 1882 the city of Buenos Aires was federalised, ceasing to be the capital of the Province of the same name and was made that of the Argentine Republic, the Provincial Government had to locate their seat of authority elsewhere.

While some were in favor of a town situated in the centre of the Province, others advocated the claims of Bahia Blanca on the Atlantic Coast already connected by rail with the metropolis and where a good port could be constructed at a reasonable outlay. The Governor decided, however, in favor of a place situated near the coast at a distance of only 60 miles from Buenos Aires. In this new town of La Plata he caused palatial edifices for public offices to be built and engaged an eminent Dutch Engineer to direct the planning and construction of a port in the vicinity of Ensenada, a small coasting village on the River Santiago running nearly parallel with the Plate and separating the Santiago peninsula from the main land. The land is very low and swampy and was frequently inundated for long periods. Through this peninsula of Santiago a channel 1970 metres long was dug and enclosed between moles of stone and wood, forming what is now called the entrance port (*ante puerto*), and extended 4242 metres into the basin of the Plate until a natural depth of 21 ft. was reached.

On the other side of Rio Santiago the same channel was continued for 1115 metres in a straight line in the direction of the town of La Plata under the name of entrance channel (*canal de acceso*), widening for about 50 metres until it formed the Grand Dock, 1275 metres long by 141 metres wide, and ended with another smaller dock for turning ships, 250 metres by 220 m. in size.

The total length of the channel is about $7\frac{1}{2}$ kilometres and the depth of water is 21 ft. calculated from zero.

On each side of the principal channel and running paral-

lel therewith, smaller channels two metres deep have been dug for the use of lighters and coasting vessels, terminating at a distance of about 6300 metres from the River Santiago in a kind of dock or basin 51 m. by 300 in area.

Both channels are connected by others and provided with bridges. There is another channel on the isthmus of Santiago which runs parallel with the main one but it has not been proceeded with for any considerable length nor does the present financial state of the Province allow the completion of the vast plan originally adopted, which includes the construction of a Government Dock, Arsenal, dry docks, etc.

In 1887 a private Company was floated to purchase the ground at the corner of the entrance channel and Rio Santiago for the purpose of erecting moles and deposits for the loading and discharge of vessels. The works were finished and brought into service long before the main port was open to navigation and being connected by rail with La Plata, are still greatly made use of.

On the other side two Companies have acquired land, the one for the purpose of building large warehouses to store produce awaiting export, the other for private depôts for goods in transit, but the crisis has prevented these undertakings from being carried out.

The Grand Dock was opened to traffic in the beginning of the year 1890 but not being provided with sheds or cranes it was made little use of until two years ago when the increased export traffic made it necessary for steamers to avail themselves of the facilities offered by this port.

The total length of the quays bounding the Grand Dock is 3250 metres, corresponding to a movement of one million tons yearly. A double line of rails has been laid down between the quay and warehouses. Of these latter 4, of the 32 designed, have now been erected also 6 hydraulic cranes, each with a lifting capacity of 1500 kilos, are available out of the total number of 28 originally provided for in the contract.

The port of La Plata offers great advantages to shipping. It is accessible for vessels drawing up to 24 to 25 feet or say

for all that can count on passing Punta Indio. The entrance channel, leading in a direct line from the River to the Grand Dock, renders the port easy of access and there are no locks to obstruct ships and impede navigation. It is therefore always used by steamers of deep draught and especially by those carrying passengers and with fixed sailing dates such as the Royal Mail Co., the Messageries Maritimes and the two large Italian Steamship Companies. Again the port of La Plata is preferred by steamers that have loaded in the River Paraná and have to complete their cargo on this side of Martin Garcia, owing to the port being much cheaper than that of Buenos Aires, but if the port charges are increased and made equal to those of the Puerto Madero as has been lately proposed, the advantages of this port over that of Buenos Aires will be considerable minimised. The cargo, mostly grain, is brought to the port either by rail, if proceeding from a place near by in the Province of Buenos Aires, or by lighters.

Despite the greater advantages the port of La Plata at present enjoys as compared with that of Buenos Aires, the latter will yet for many years to come continue to be of far more importance, owing to its situation in the centre of consumption of all imported goods which can be landed at much less expense. Thus the steamers belonging to the Companies already referred to must send their cargoes by rail from La Plata to the warehouses of the port of Buenos Aires which, apart from loss of time and additional handling, occasions an extra expense of \$ 3.50 paper per ton.

Steamers in the regular trade provide for this by charging an extra freight but it is advisable for owners of steamers bound for La Plata and bringing part cargo for Buenos Aires to stipulate in the B/Lading that the Railway carriage is to be for account of the consignees. Discharge and loading are performed regularly and due receipts obtained every evening for cargo delivered, but tally clerks are required to assist at the discharge and settle disputes about damaged cargo.

The port charges at La Plata are as follows:

Dock dues:

Sailing vessels of less than 50 tons	reg. paper	\$ 0.04	per ton
» » » of 100	» » »	0.06	»
» » » 200	» » »	0.08	»
» » » 300	» » »	0.10	»
» » » 400	» » »	0.12	»
» » » 500	» » »	0.15	»
» » more than 500	» » »	0.20	»
Steamers without regard to size.....	» »	0.08	»
Vessels in ballast.....	» »	0.04	»
Wharfage, if cargo is worked, per ton reg.			
per diem.....	» »	0.01	
Wharfage, if cargo is not, per ton reg.			
per diem.....	» »	0.0½	
Towage, according to tariff			
Pilotage.....	paper	\$ 45.	—

Other charges are equal to those already mentioned as common for all Argentine ports.

For working cargo at night or on feast days a petition drawn up on stamped paper of the value of \$ 1.20 must on each occasion be presented at the Customs.

For loading cargo at night a charge of \$ 50, paper, is made and for discharging \$ 40, paper.

Vessels bound for La Plata must as a rule anchor in the outer roads of Buenos Aires to receive the Health visit. When steamers call at Montevideo the Agent at Buenos Aires receives information by wire of their arrival and can at once send out tug-boat and pilot.

When steamers do not call at Montevideo it would be convenient for them to signal the Semaphore on passing Cape Saint Mary or Maldonado and request a wire to be sent advising arrival in order to enable the Agent to secure the tug and pilot, whereby 24 hours are saved. Although steamers do not absolutely require tugs nearly all employ them for evolutions and in case of any accident in the River. Vessels get the entry in Ensenada but Consulates of various Nations are established in La Plata with proper jurisdiction

independent of those in Buenos Aires. Provisions, ballast etc. can be obtained there but nearly all articles are sent by rail there from Buenos Aires whither also it is necessary for masters to proceed for the transaction of business with merchants.

Passenger trains run at frequent intervals during the day and the journey between La Plata and Buenos Aires occupies little more than an hour and a quarter.

La Plata Port (Ensenada)

TARIFF FOR TOWAGE OF OCEAN-GOING VESSELS. *

Sailing vessels.

Tons register	To	301	401	501	601	701	801	901	1001	1101	1201	1301	1401	1501	1601	1701
	300	to 400	to 500	to 600	to 700	to 800	to 900	to 1000	to 1100	to 1200	to 1300	to 1400	to 1500	to 1600	to 1700	to 1800
Moles and Deposits	60	71	82	93	104	115	126	137	148	159	170	181	192	203	214	225
Grand Dock	75	87	99	111	123	135	147	159	171	183	195	207	219	231	243	255
Each Movement	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

The prices laid down for sailing vessels comprise towage direct from the Roads to the Port loaded and leaving empty, or vice-versa.

For entrance only loaded, the charge is	70 %	} of the above tariff prices
» leaving » » » » »	60 »	
» Entrance and leaving » » » » »	120 »	
» leaving only empty » » » » »	40 »	

Each movement after a ship has once been brought to her berth, will be charged extra as laid down in the tariff,

* The prices, which are laid down in paper in both tariffs will be increased by a percentage equivalent to half the premium on gold on the day of departure of the steamer or sailing-vessel.

and ships going beyond the moles and Deposits to the Grand Dock will pay the corresponding tariff charge to the furthest point besides the fee for shifting position.

Ocean-going steamers.

Draught in English feet	Moles and Deposits	In the Grand Dock	For each Movement	Vessels going beyond the Moles and Deposits to the Grand Dock will pay the corresponding tariff charge to the furthest point besides the fee for shifting position. The small steamers which run out to the Roads to clear or give entrance to vessels lying there charge \$ 25 (paper) each trip.
To 19 ft \$	80	100	20	
» 20 » »	92	113	22	
» 21 » »	104	126	24	
» 22 » »	116	139	26	
» 23 » »	128	152	28	
» 24 » »	140	165	30	
» 25 » »	152	178	32	

The foregoing charges are for service of tugs from the moles to the Port and vice-versa.

Each movement after the vessel has been brought to her berth will be charged according to greatest draught, whether on entering or leaving, and on this basis the account will be made out.

If for any reason the Company's tugs are not employed on leaving the port, entrance only will be charged at the rate of 65 % of the tariff prices laid down.

La Plata Port. Expenses.

The expenses of a steamer of 1.500 tons during a stay of 25 days in the port of La Plata may be calculated at about £ 100, and of a sailing vessel of the same tonnage during a stay of 40 days, at about £ 120. Vide statements annexed.

*Steamer of 1.500 Tons Reg. Draught 20 feet 25 days
in Port of La Plata.*

	GOLD	PAPER
Stamped manifest at Custom house..... (for the first sheet \$ 50 paper and \$ I for each extra sheet, say from \$ 50 to \$ 60 in all).		\$ 50.00
Light dues at \$ 0.07 gold per reg. ton....	\$ 105.00	
Health » » » 0.01 » » » »	» 15.00	
if with foul B/H at \$ 0.02 per reg. ton.		
Dock dues entering at \$0.08 paper per reg ton		» 120.00
Wharfage at 0.01 paper per reg. ton. per day (if at Muelles and Depositos, Wharfage at 0.01 1/2 per day).		» 375.00
Refuse Boat		» 20.00
Packet privileges for each voyage..... (with disinfecting stove \$ 50).		» 150.00
Port pilotage.....		» 45.00
*Bill of Health \$ 5. Stamp for same \$ I.50...		» 6.50
Towage in and out. (Gran Dock La Plata), \$ 113 plus 1/2 Prem. on gold 125 %/o \$ 254.25 less 25 %/o \$ 63.56.....		» 190.69
River pilotage, conventional.		
Custom house despatch.....	» 50.00	
	\$ 170.00	\$ 957.19
\$ 957.19 paper at 350 %/o.....	» 273.48	
Gold.....	\$ 443.48	
Gold \$ 443.48 at \$ 5.04 per £.....		£ 87.19.10

*Sailing Vessel of 1500 Tons Reg. Draught 20 feet.
40 days in Port of La Plata.*

	GOLD	PAPER
Stamped manifest at Custom house		\$ 30.00
(for the first sheet \$ 30 and for each extra sheet \$ I, say from \$ 30 to \$ 36 in all).		
Light dues at \$ 0.07 gold per. reg. ton . . .	\$ I05	
Health » » » 0.0I » » » . . .	» I5	
(if with foul B/H \$ 0.02) » » »		
Dock dues at \$ 0.20 paper » » . . .		» 300.00
Wharfage at \$ 0.0I paper » » » . . .		» 600.00
Refuse Boat		» 20.00
Port Pilotage		» 45.00
Bill of Health \$ 5 Stamp for same \$ I.50 . . .		» 6.50
Stamp clearing		» 5I.00
Towage in and out (Gran Dock).		
\$ 2I9 plus 1/2 Prem. \$ I25 0/0		
» 492.75 less 25 0/0 . . . » I23. I9 . . .		» 369.56
Custom house despatch	» 25.00	
River Pilotage, conventional.		
	<u>\$ I45.00</u>	<u>\$ I422.06</u>
\$ I422.06 at 350 0/0	» 406.30	
Gold	<u>\$ 55I.30</u>	
\$ 55I.30 at \$ 5.0 4 per £		<u>£ I09.7.8</u>

The long stretch of sea coast of the province of Buenos Aires extending from the port of La Plata to that of Bahía Blanca, a distance of some 700 kilometres, does not possess a single available harbour.

At MAGDALENA, a small town close to La Plata, there is a saladero or slaughter yard the produce from which, consisting of hides, tallow, jerked beef, bones and bone-ash, was formerly shipped in small sailing-vessels direct to Europe but given the present facilities for forwarding cargo from

Buenos Aires or La Plata by steamer, the produce from Magdalena is now generally brought to these ports in lighters and transhipped.

Vessels loading at Magdalena must be cleared at the Buenos Aires Custom House where all dues are paid.

Ajó and San Clemente.—The port of Ajó or Tuyú, as it is likewise called, is situated some 12 kilometres up on a narrow creek named the Arroyo Ajó which enters the San Borombom Bay. The width of the creek varies from 80 to 250 metres, and owing to its innumerable windings is of difficult navigation.

At the mouth of this creek there extends what has been incorrectly termed a «bank», but which is in reality a submerged coast extending all the way along the shore of the San Borombom Bay, and varying in width from 5000 to 8000 metres until it dies away at San Clemente, a small bay formed by the Punta Rasa of the north point of Cape San Antonio.

This submerged coast practically impedes any extensive sea traffic with the port of Ajó. Its composition is chiefly mud, with occasional narrow stretches of sand and shingle. The small sloops, drawing from 4 to 7 feet, which do a coasting trade between Ajó and Buenos Aires, lie to the N. W. at a distance of from 5 to 6 kilometres from the mouth of the creek until a favourable wind and a high tide enable them to float over the «bank» and enter the «Arroyo».

The saladeros situated in the town of Ajó export a considerable quantity of jerked beef, salted hides etc.; this produce is loaded into small barges which are towed out by a little steam tug to ocean vessels, lying some 15 kilometres to the N. E. of the mouth of the creek, where they find a good anchorage, marked on the Admiralty charts.

The remaining trade of the Ajó port is limited to the remission of wool, sheepskins, nutria-skins, cow hides and estancia produce, and the introduction of grocery stores and articles for local consumption, all proceeding from Buenos

Aires. This trade is conducted with sloops drawing from 4 to 7 feet, and loading from 30 up to 80 tons of cargo. Freight from Ajó to Buenos Aires costs from 12 to 15 paper dollars per ton of 1000 kilos.

The so called port is composed of a boarded facing to the right bank of the arroyo, comprising a total length of about 80 metres. By the side of this there is a small Custom house, and two store-sheds where produce is deposited awaiting shipment. Further up the creek, say some 6 kilometres above the port and still in the township, stand the Luro saladeros where a portion of the river bank is boarded in a way similar to that at the port.

The establishment of a steamer service is here impracticable owing to the difficulties in navigating the mouth of the creek and in crossing the submerged coast.

The location of the port to the north of the bends of the creek might obviate the difficult navigation of its circuitous windings, but owing to the swampy formation of the land it would become then of difficult access from the land side, and the chief obstacle, viz. the submerged coast line, still remains.

Messrs. Gibson Bros. made a complete and technical study of the port of Ajó in 1888-1889 having in view its development as an ocean port. The result of this survey was unsatisfactory, and may be summed up as follows. Heavy cost of cutting and dredging a channel of 18,000 metres to reach the 3 fathom line, and comparative shallow waters even at that distance. Probable constant silting up of the channel owing to the muddy formation of the ground, and the action of the currents. Cost of cutting and dredging a channel from the mouth of the creek up to the Port of Ajó, and circumscribed navigation in the said channel.

These obstacles were sufficiently heavy to determine them to abandon the enterprise and turn their attention to San Clemente. The outcome of their studies in this direction has been the concession obtained by them from the National Government for the construction of a port there. The advantages of this port are set forth in a pamphlet published by

the concessionaires. Unfortunately, owing to the present financial and commercial paralización, the scheme is brought before the public at an inauspicious period.

A first class lighthouse has been built by Government here.

Two other towns on the seacoast have recently sprung into life, Necochea at the mouth of the River Quequen and Mar del Plata. They may be set down, however, but as fashionable bathing places and offer no interest to commerce, there being insufficient water at the mouth of the Quequen River for sea-going vessels to enter and the open roadstead at Mar del Plata is unsafe for ships and inadequately sheltered from the heavy storms which prevail.

Bahía Blanca. — Situated Lat. 38° 47'. Long. 62° 15' Masters of vessels bound for this port had formerly to make «Monte Hermoso» the only landmark which served as a guide to the entrance of the bay leading to the harbour, situated about 7 kilom. from the coast, but a committee was recently appointed to fix the position of a lightship and have recently concluded their labors.

The navigation is now comparatively easy and Masters, after sighting the lightship, the bearings of which will be found in the general description of lights on the Argentine coast, may proceed to buoy n° 8 from whence it is safer to take up a pilot as the passage here becomes narrower, especially on nearing the Napostá Bank. Once past this obstacle vessels find a spacious and well protected anchorage ground.

Conditions of bottom. — From the lightship and up the channel running between the two buoys moored at Punta Pipa the bottom consists of sand but on the shore side of the buoys it is mostly of stone or Tosca (hard clay). From the buoys as far as the Napostá bar the bottom is again sandy and in the port itself, mud.

The bar of Napostá. — Has been dredged by order and for account of the Great Southern Railway and has a depth 10 ft. at mean low water, the mean rise of tide being 16 ft. The

tide follows the natural laws, the daily variation being about fifty minutes.

Depth of port. — Vessels drawing up to 22 ft. can at all times enter in safety and during spring tides, up to 26 ft.

Pilots are constantly on the look-out for vessels and upon ship making signal, will run out in a small cutter and bring the vessel in to the pier. Masters are urgently recommended to accept the services of a pilot as there are many banks in the bay and several vessels have grounded badly and been lost by refusing or omitting to take up a pilot.

Towage is not required as pilots bring vessels under sail up to the mushroom buoy off the end of the pier whence lines are run out and ships warped in to their berths.

Discharge and loading are effected at the Railway mole which is 500 yards in length and built on iron piles. Vessels drawing 26 ft. can lay alongside at all times. The cargo is put direct from the ship on to Railway waggons or vice-versa by means of hydraulic and steam cranes, each with a lifting capacity of 20 tons.

Despatch. — The discharging and loading are managed by the Railway Company and carried on with great despatch, as much as 500 tons of Railway material having been lifted in 10 working hours.

Fresh water is supplied from the Company's tanks on the pier at the rate of \$ 0.50 gold per 100 gallons.

Stevedores and labourers.—The charges vary little from those usual in Buenos Aires.

Ballast.—Vessels discharge ballast as a rule at the Railway mole where the Company receives it at the rate of \$ 2 (paper) per ton. During the time vessels are taking in ballast the wharfage dues are for account of the ship but once finished and Masters having declared their readiness to load, the dues in the case of sailing vessels, are for account of the shipper.

Steamers always pay their own wharfage dues.

Wharfage (to Gt. Southern Railway Company).

Per reg. ton per day, including use of hydraulic and steam cranes, ships finding their own moorings, chains and slings

for cargo, time to count from hour of coming alongside to hour of hauling away from pier, Sundays and Holydays included:

per first 100 tons reg.....	\$ 4.00
each additional ton »	» 0.01

Rates of pilotages

		<u>Nº 1</u>	<u>Nº 4</u>	<u>Nº 7 Buoy</u>	
Vessels drawing 12 feet from	\$ 35	\$ 25	\$ 15	gold	
13 »	» 40	» 30	» 20	»	
14 »	» 45	» 35	» 25	»	
15 »	» 50	» 40	» 30	»	
16 »	» 55	» 45	» 35	»	
17 »	» 60	» 50	» 40	»	
18 »	» 65	» 55	» 45	»	
19 »	» 70	» 60	» 50	»	
20 »	» 75	» 65	» 55	»	

and upwards, to anchorage inside of Napostá Bar.

Taking vessel from anchorage to Railway Mole or vice-versa, \$ 5 gold.

Although the port of Bahia Blanca has increased in importance during late years, it has not yet assumed the prominent position that it is certain to obtain shortly and which would have been earlier the case but for the construction of the La Plata port. Situated in a convenient spot for the shipment of produce from the richest province of the Argentine Republic and surrounded by important pastoral establishments as well as by prosperous agricultural colonies, Bahia Blanca is bound to progress rapidly.

To this end, the Great Southern Railway which already connects the port with the principal towns of the Province of Buenos Aires, will contribute powerfully and exercise in a still higher degree the beneficial influence it has already had on the traffic of this Province.

Another powerful factor to the development of the commercial importance of Bahia Blanca will be the construc-

tion of the port, a concession for which has been granted to a strong syndicate of Buenos Aires capitalists, but the execution of this vast project has been temporarily interrupted by the existing crisis.

The import to Bahia Blanca consists principally of coals, salt and lumber and has been effected during the past year by 4 steamers of 5346 tons and 6 sailers of 2973 tons.

During the year 1893, 36 steamers and sailing-vessels with a total register of 35.538 tons left this port with exports comprising 21.549 bales of wool and 40.686 tons wheat.

Carmen de Patagones.—The entrance to the river is blocked by a series of sand banks through which the main channel threads its way and which channel is exposed to changes after a northerly or easterly gale. In moderate weather pilots go off to bring vessels in and when the weather is too bad to permit of this, signals are made by semaphore directing Masters of vessels as to the channel and depth of water. This at mean high water may be reckoned as three fathoms.

Vessels discharge at the town of Patagones alongside a small wharf but there are no stores or other accomodation for cargo.

Since the saladero closed about 15 years ago the arrival of an oversea vessel is an unheardof incident.

The coasting trade is at present served by three steamers and as many small sailing schooners.

During the last six years no cargo has been shipped direct to Europe nor has any cargo arrived direct from Europe to this port.

There are no port charges; mole dues are 2 cents a ton for the first 100 tons and 1 cent for every 100 tons in excess. This port can never be but of little interest to owners and Masters of seagoing vessels.

Carmen de Patagones is the last port on the Argentine coast where sea-going vessels have loaded or discharged merchandise. There is little doubt however, that other towns as Chubut, San Blas and Santa Cruz, now frequented only

by coasting vessels, will ere long be visited by ocean going ships and that new places will spring into life all along the coast.

The Argentines are by nature little inclined to maritime pursuits. The beautiful climate enjoyed by nearly all the provinces of the Republic, the fertility of the soil and the comparative ease with which a living is earned on the estancias or farms, have influenced the native population to devote themselves almost exclusively to pastoral and lately somewhat to agricultural pursuits. Few have been willing to exchange their tranquil existence for the hazardous and perilous struggle along the sea coast, this being one of the reasons why all industries connected with maritime undertakings are still completely neglected. Along the coast there are to be found depôts of guano at the Leone and Pinguin Islands whither exclusively foreign vessels proceed to load, frequently without any authorization, and these waters likewise contain seals and walrus in abundance which, apart from the value of their skins, furnish the primary elements for the establishment of oil factories. Again a great variety of fish and shellfish abounds along the coast but nobody has yet cared to take up the business on a large scale.

Few countries offer a more profitable field for labour than the Argentine Republic and it is likely that the gradual progress of the country will again induce a large number of European immigrants to settle here, among which there may be found a certain proportion with a taste for maritime pursuits.

The Argentine Government may then consider it judicious to encourage the development of the fishing and others industries in connection therewith, by offering special facilities in order to tempt foreign capital in this direction, and at the same time see the justice and advantage to be gained by compensating in some way those who embrace and follow the toilsome and little remunerative career of the sea by a grant of land on the sea border, at least to such persons who for a certain number of years have served in the Argentine Navy, thus ensuring them a retreat in their old age and fos-

tering an inclination in others to adopt the same career. Such measures would tend to produce a race of men, born to the sea, who would most advantageously replace the foreign mercenaries with which the Argentine Navy is now to a great extent manned, it being a well-known fact that there are no sailors equal to those who have been brought up on the sea shore, accustomed from childhood to face the dangers of the ocean lending a hand in their fathers' boats.

In this way the Argentine Republic will acquire trustworthy seamen and pilots, born in the country, and lay down solid foundations of future maritime wealth and prosperity.



INDEX

A

Aj6 (Tuy6) and San Clemente.....	95
Argentine Republic.....	16
Anchorage and Berths6, 60, 61, 69, 70, 74, 86, 90, 95	97
Arrivals and Sailings (Statistics).....	55, 56 57

B

Ballast 8, 32, 64, 65, 66, 68, 72, 73, 75, 91	98
Buenos Aires	19
Bills of health.....	10 35
Baradero.....	65
Bahia Blanca.....	97
Bottom, condition of	7, 17, 58 97
Banks established at Buenos Aires	41

C

Coals.....	8 33
Currency.....	14
Consular Dispatch.....	10, 11 35
Commissions Agency	10 36
Capacity of vessels, Carrying	41
Coins, value of different	42
Charter-Parties	44, 45, 46 89
Concepci6n del Uruguay.....	60
Campana.....	64
Colastin6.....	74
Carmen de Patagones.....	100
Custom-House formalities.. II, 22, 28, 35, 36, 47, 60, 70, 73, 90	95
Colonia	59

D

Depth of ports	7, 28, 59, 60, 61, 64, 65, 66, 67, 69, 70, 72, 73, 74, 75, 87, 88, 95, 98	100
Discharge	9, 64, 66, 68, 69, 73, 74, 89, 98	100
Docks	7, 21, 22, 68	88
Dunnage		32
Diamante		73
Distances and Navigation of Rivers and Channels	76 to	80
Description of ports	6, 8, 70, 87, 88, 95, 96, 97	100

E

Exports	14, 50, 51, 52, 59, 60, 64, 66, 67, 73, 74, 95	100
Exchanges	14	42
Ensenada (Port of La Plata)		91
Expenses. Pro forma, account of	39, 40, 93	94

F

Frozen Meat	30	65
Fray Bentos		59
Flores Island (Quarantine Station)		6
Fares by river steamers	77, 78, 79,	80

G

Gualeguay		66
Gualeguaychú		60

H

Health regulations	6, 16, 19, 20	35
Hospitals		34

I

Introduction		3
Imports	10, 48, 64, 66, 68, 74	100
Inflammables and explosibles		20
Insurance Companies		33

L

Lights	5, 10, 17, 18	97
Light-dues	10	35

Lighterage.....	8, 9	70
Loading	9, 30, 61, 65, 66, 68, 69, 70, 72, 73, 74, 89	98
Live stock		30
do. Tariff of fittings for.....		31
Lloyds' Agency.....		33
La Plata Port, of (Ensenada).....	87	91

M

Montevideo	5	6
Martin Garcia.....		58
Magdalena		94
Monetary System.....		41

N

Navigation	14, 53, 57	97
Napostá		97

P

Pilots and pilotages, 5, 6, 23, 27, 28, 63, 64, 65, 66, 68, 70, 71, 72, 73, 75, 90, 97, 98		100
Provisions	8, 32	91
Port charges, 10, 11, 12, 35, 37, 46, 66, 72, 74, 76, 89, 90, 93, 98		100
do. Exemption from.....	12	46,
Packet privileges.....	10, 11	36
Port of Buenos Aires.....		20
Port regulations	20, 21	22
Premium on gold. Average.....		42
Paysandú		60
Paraná, River		62
do. Town.....		74
Puerto Obligado.....		66
Puerto Borghi or Puerto Canaletas.....		72
Puerto Gomez		73

R

Republic of Uruguay	5	14
Repairs.....	7, 33	46
Rates of freight	43, 71, 81, 82, 83, 84, 85	89
River Uruguay.....		59
Rosario		68

S

Sanitary Guards and Inspectors	7	19
Stamped paper	10, 12	35
Stevedores	10, 13, 29	98
San Pedro		65
San Nicolás		66
San Lorenzo		72
Santa Elena		75
Santa Fé		74
Steam Tenders,	10, 28	90
Ship Brokers	47, 48	73
Survey of vessels		45

T

Tide		7
Towage	24, 25, 26, 27, 63, 72, 75, 90, 91	98
Tuyú or Ajó		95

V

Villa Constitución		67
------------------------------	--	----

W

Water	8, 32	98
Weigher	30	33
Weights and measurements of River Plate produce		41
Weights and measures		41
Wharfage	61, 68, 71, 73, 90, 98	100

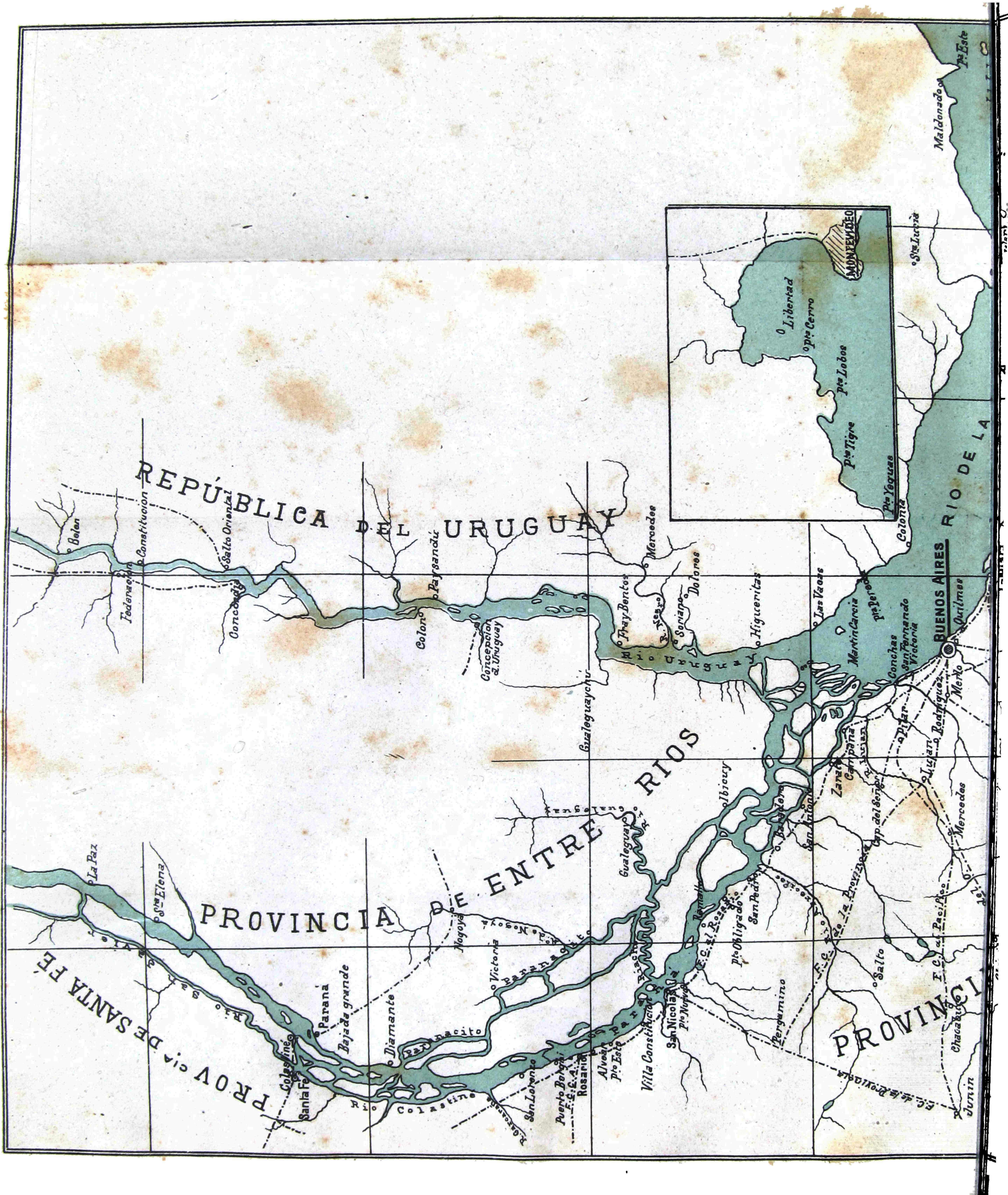
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Zárate		65
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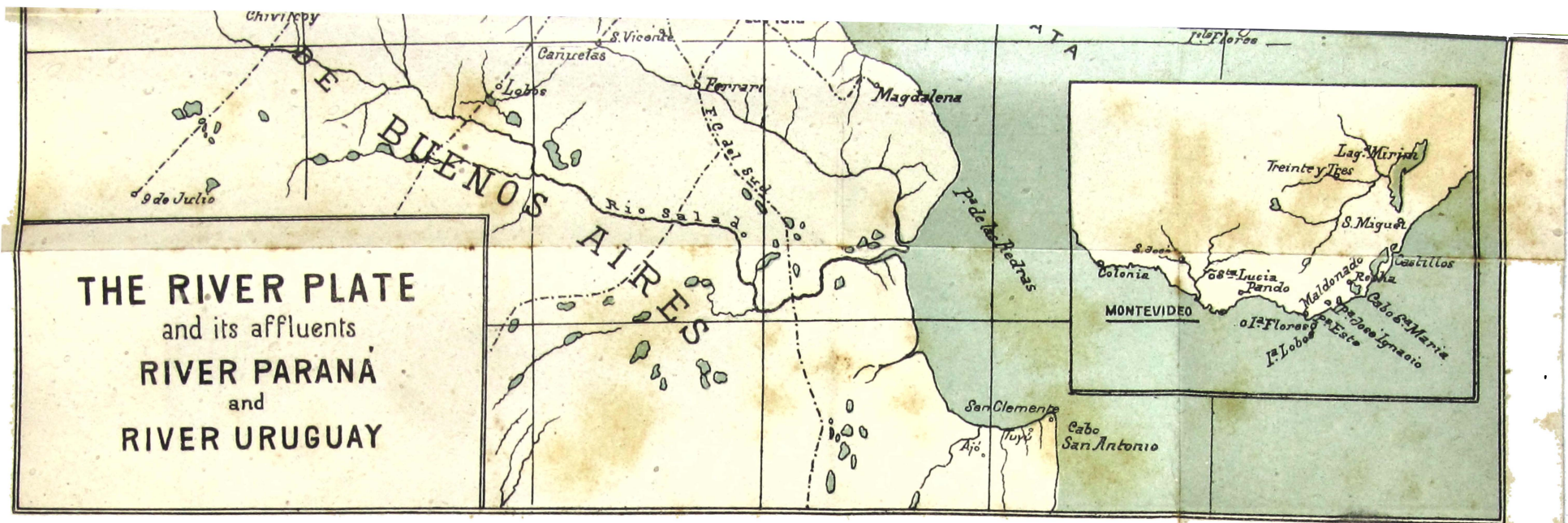


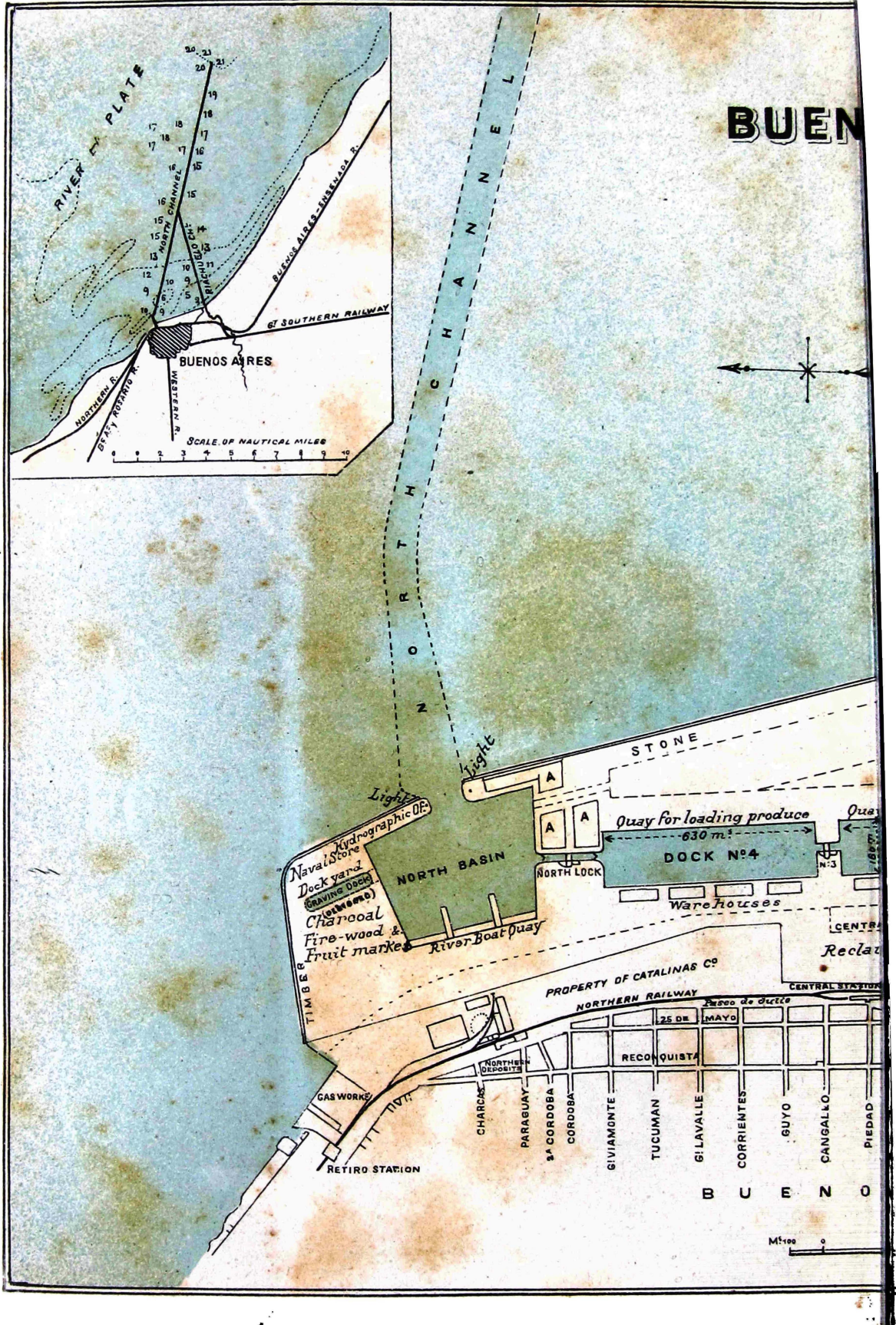
THE RIVER PLATE
 and its affluents
RIVER PARANA
 and
RIVER URUGUAY



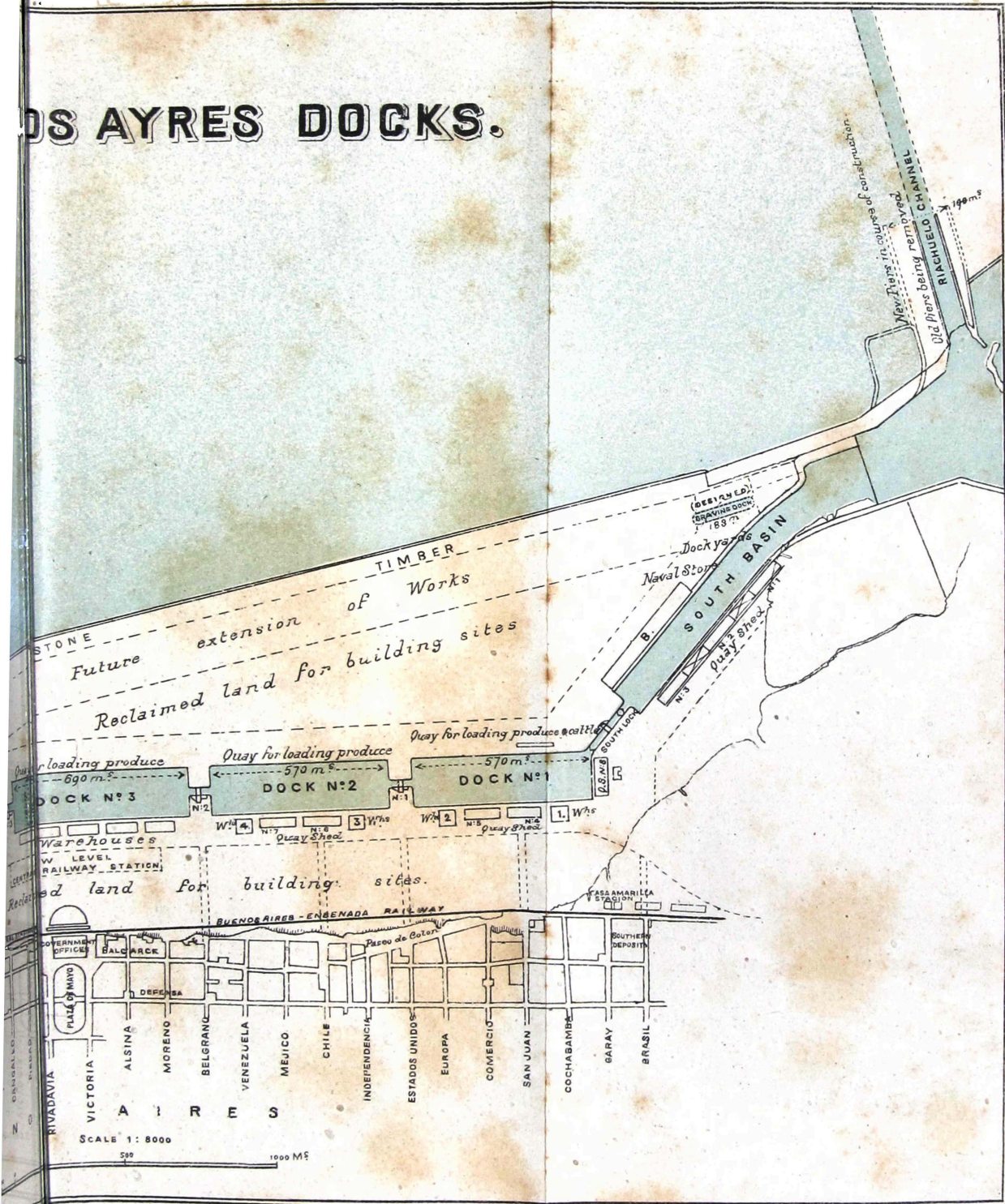


THE RIVER PLATE
and its affluents
RIVER PARANÁ
and
RIVER URUGUAY



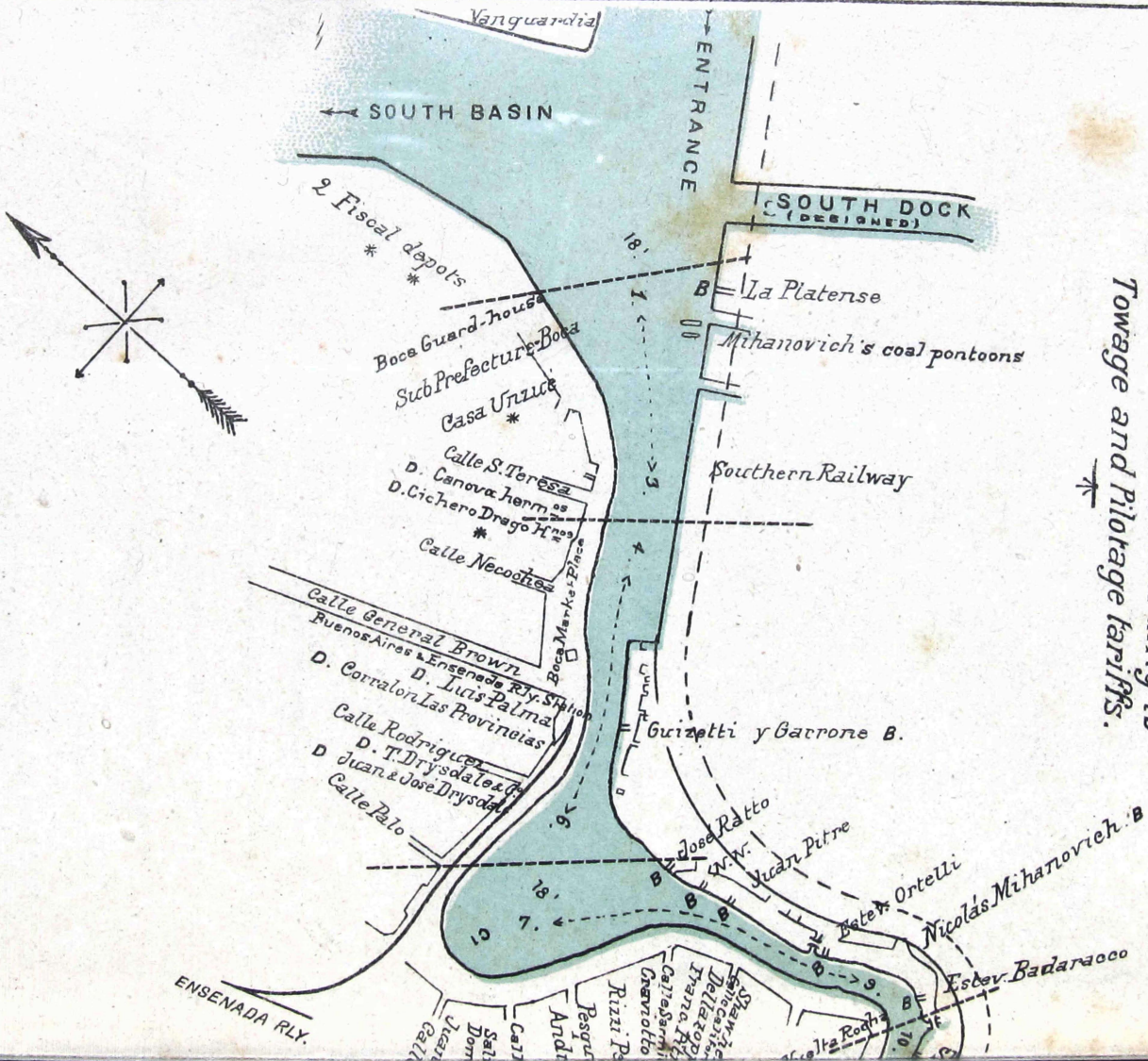


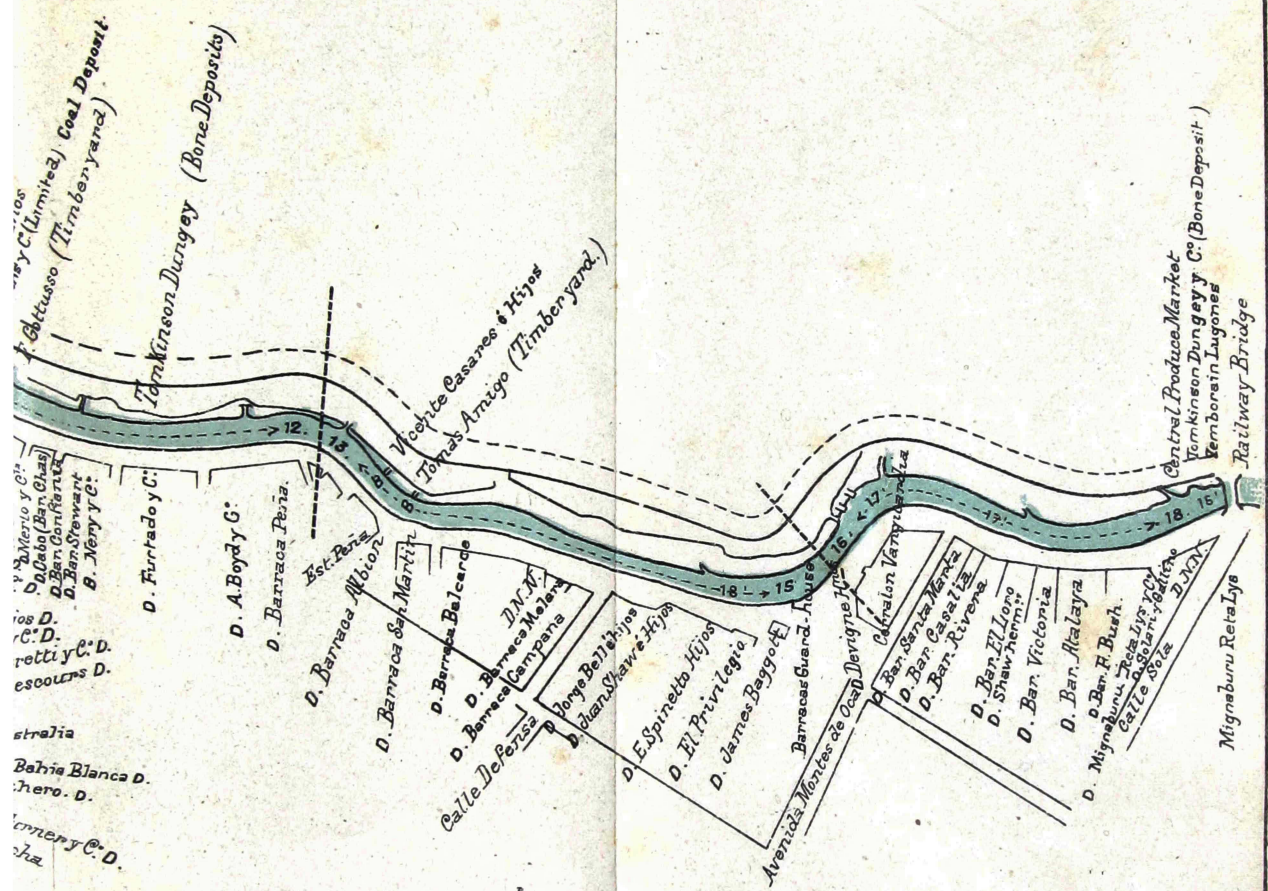
OS AYRES DOCKS.



DISCHARGING AND LOADING BERTHS
 in the
BOGA DEL RIACHUELO AND BARRACAS

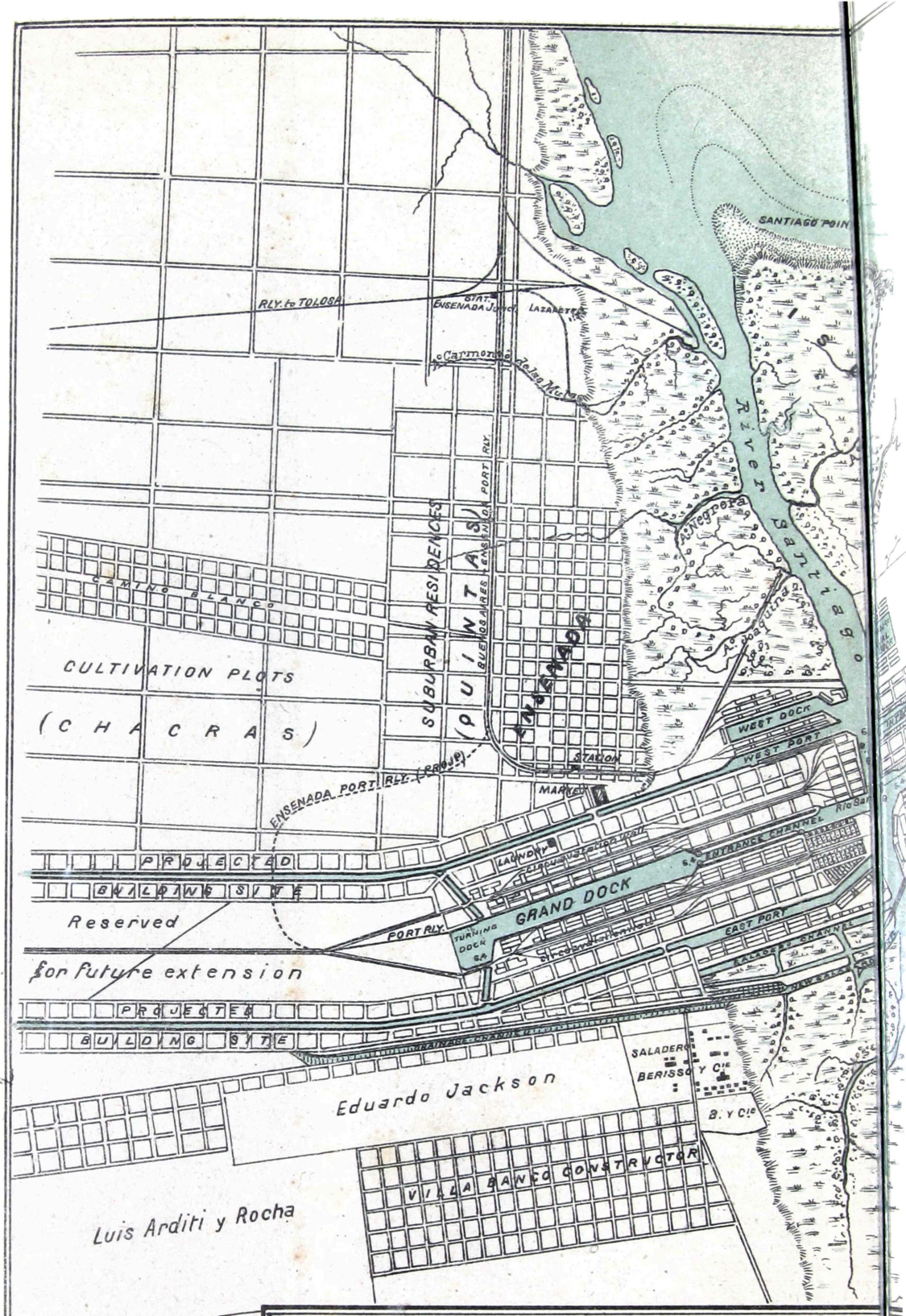
Sections marked according to
 Towing and Pilotage tariffs.





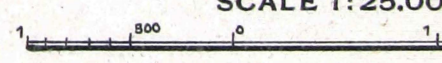
ESCALA 1 : 4000

- B - SLIPS
- D - DEPOSITS
- * - MORE IMPORTANT DEPOSITS



GENERAL PLAN
 OF THE
PORT OF LA PLATA

SCALE 1:25,000



Ramon Maldonado

Luis Arditi y Rocha

Eduardo Jackson

VILLA BANCOS CONSTRUCTOR

SALADERA BERISSE Y CIA

B. Y CIA

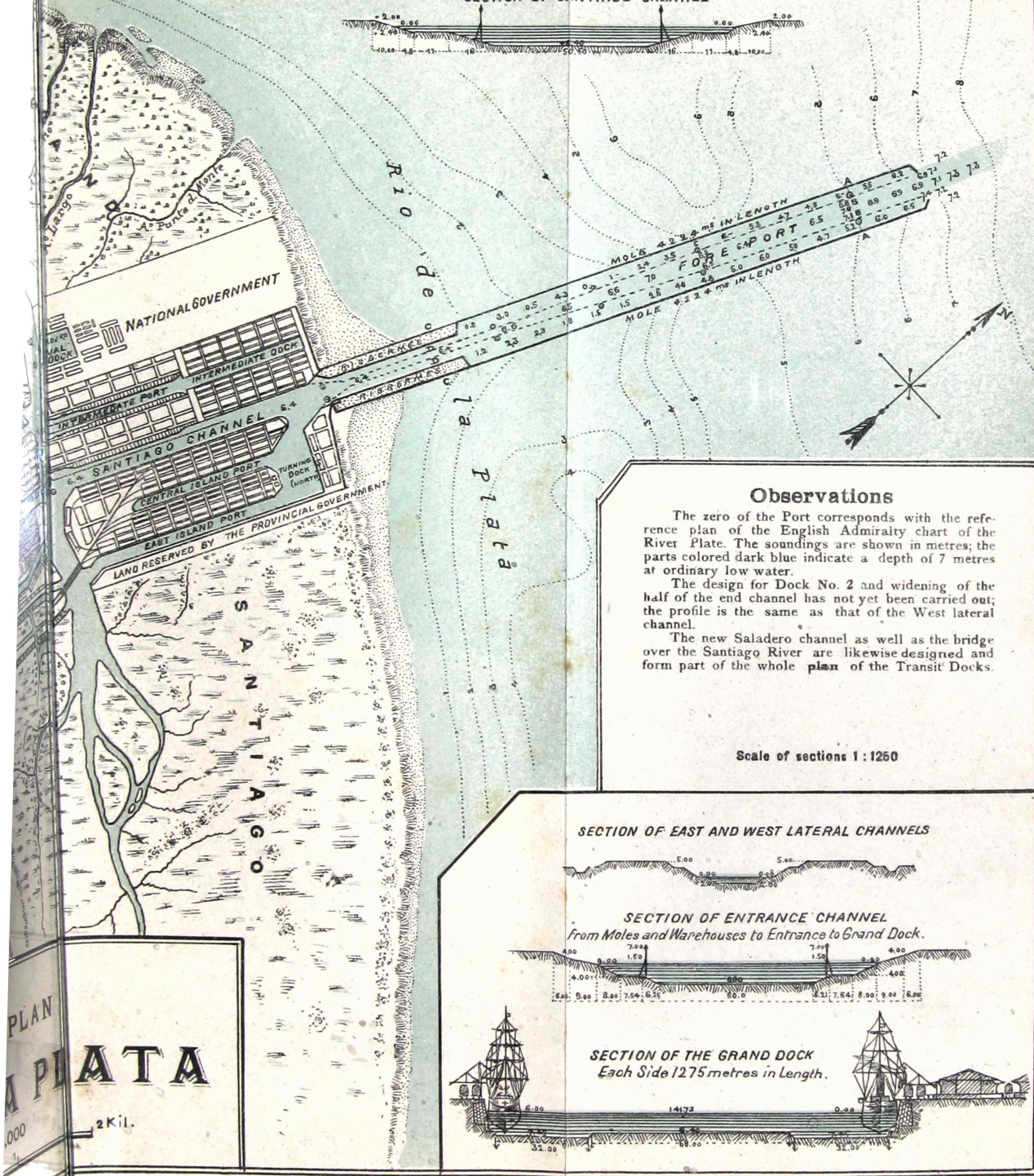
ANTE PUERTO



SECTION OF THE SANTIAGO RIVER
Perpendicular on Moles and Warehouses (shown by EF)



SECTION OF SANTIAGO CHANNEL



Observations

The zero of the Port corresponds with the reference plan of the English Admiralty chart of the River Plate. The soundings are shown in metres; the parts colored dark blue indicate a depth of 7 metres at ordinary low water.

The design for Dock No. 2 and widening of the half of the end channel has not yet been carried out; the profile is the same as that of the West lateral channel.

The new Saladero channel as well as the bridge over the Santiago River are likewise designed and form part of the whole plan of the Transit Docks.

Scale of sections 1 : 1250

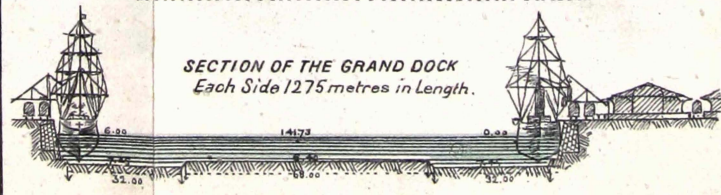
SECTION OF EAST AND WEST LATERAL CHANNELS



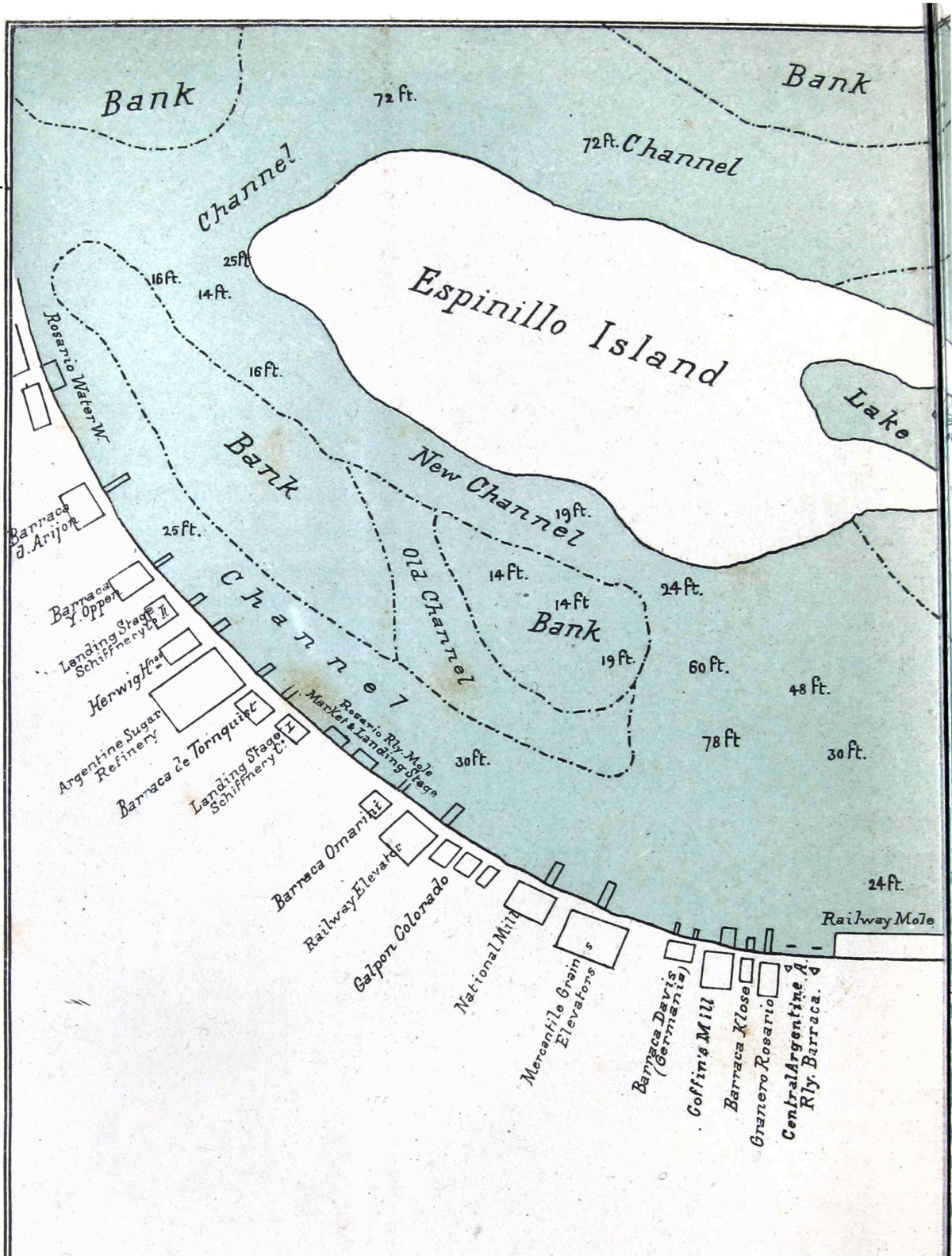
SECTION OF ENTRANCE CHANNEL
From Moles and Warehouses to Entrance to Grand Dock.



SECTION OF THE GRAND DOCK
Each Side 1275 metres in Length.



PLAN
A PLATA
2 Kil.



ROSARIO DE STA FÉ

Moles and Loading Berths
on the River Paraná.

