

NOTES AND BIBLIOGRAPHY

¹ After having acted for his government in Rome and Genoa for many years, he was called in 1685 librarian of Luigi XIV and became member of the Royal Academy of France, which was founded by Richelieu in 1639, for his studies in Humanities.

² Its statute and aims imitated the ones of the Academy of Cimento, in Florence (which was founded by Leopoldo de' Medici in 1657) of which he was corresponding member and which gave life to the Académie Royale des Sciences.

³ As we read in the chronicle of Jan Chapelein (1595-1674), which attended the meeting, together with the surgeon Claude Morel (1633-1703), the anatomist Claude Jarde (1606-1671), the physician Pierre Bourdelot (1610-1695), the biologist Pierre Borel (1620-1690).

⁴ WILLIS G.B., *Exposition anatomique de la structure du corps humaine*, Paris 1732.

⁵ He referred above all to the philosophical system of René Descartes (1586-1659) in his treatises "About functions of soul" and "About man", which were published in 1649 and 1662.

⁶ He had done many experiments on animals and men in the anatomical amphitheatre of Saint Come in Rue des Cordeliers, now De l'Ecole de Médecine.

⁷ They have the merit of having recognized the duct which puts in connection the III and the IV ventricles and the cerebral side scissure, the frontal polygon, which is placed at the base of encephalon and the eleventh pair of cranial nerves or spinal accessory.

⁸ Steno says that it would be very important to have a liquid which solved cranial bones and put in evidence brain, without changing its shape and structure.

⁹ Following julian calendar, which is still in use among protestant people, while in catholic countries gregorian calendar had been introduced since 1582: in this latter case, as there is a difference of ten days, Steno was borne the 11.th of January.

¹⁰ He had abjured Lutheranism the 2.nd November 1667, taking up catholic religion.

¹¹ The 5.th December, following gregorian calendar.

Articoli/Articles

REGULATION FOR "SAVING" THE DROWNED IN ITALY
(XVIII-XIXth CENTURY), WITH PARTICULAR REFERENCE
TO THE REPUBLIC OF VENICE

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SUMMARY

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The autor gives a brief chronological syntesis, starting from the VXIII century, of the various provisions issued in Italy, with particular reference to the Republic of Venice, relating to the saving of the drowned, as an introduction to the discipline of "Life-Saving" oriented Swimming.

The need of doing something in case of asphyxia from drowning was presumably felt when man first came into contact with water, which was an element quite unfamiliar to him, right from the beginning of mankind, so that, in order to bring life back to the asphyxiated, sundry methods were employed, whether rational or due to religious prejudices or to magical beliefs.

Improvisation, guided by intuition as well as by an empirical approach, led to finding out the first rudimental ways of intervention: feeling the pulse, skaking and rubbing the body, stimulating vomiting to lip blowing and warming up the body turned cold by the shock.

However, the need of codifying these sundry methods¹ which had been worked out in the course of time and had by then been tested through experience and in other cases of asphyxia as well, was only felt in the XVIII century, the Age of Enlightenment and renewal when science and culture were placed at man's service.

Particularly, the awareness that it was possible to save many human lives started to spread out with both private and public Associations.

Parole chiave/Key Words: Reanimation - History - Legislation - Venice Republic.

In France, starting from 1740 some "Notices" were already being printed by royal decree from time to time, together with some remarks from the writings of De Réamur, Tissot and Portal, describing the methods then in vogue to save the drowned. In England, on October 18th 1748 the Parliament printed a notice which was entitled: "A Very Effective Method of Bringing the Drowned back to Life", by Doctor Bruhier. But the first successful attempt of respiratory reanimation is to be attributed to the Scotsman William Tossack who, in 1732, saved and asphyxiated miner by means of mouth-to-mouth breathing (Edinburgh, 1744).

The popularization of first aid methods for the drowned was seriously dealt-with for the first time in Holland, when the first "Life-saving Society" was established in Amsterdam ("Maatschappij tot Redding van Drenkelingen" or Health Society, 26th October 1767). This example was soon followed by several countries, among which France, Austria, Germany and England where, in 1774, the London "Royal Humane Society" was established at Hyde Park.

It is interesting to remember that in Mainz and in Weimar, starting from 1783, no physician was allowed to practise unless he was able to give first aid in reanimation and in this latter town, the State Schools were given the task of teaching their students the basic methods to be used with the drowned.

In XVIII century Italy swimming was still a largely disregarded practice, whereas seafaring activities had become more and more important for what concerned sea transportation. Owing to the increasing number of casualties from drowning, several enterprises were started, both private and state-supported, of which we have tried to give a systematic chronological scheme.

The first message about reanimation of the asphyxiated came from Palermo where, in 1745, Francesco Emanuele Cangiamila (a Doctor in Law at the age of 15, who became a priest at 30 following a sudden vocation) making reference to the amazingly high mortality index of newborn babies at the time, focused his own contribution upon the importance of keeping alive

newborn babies suffering from asphyxiation until Baptism was administered.

His treatise, entitled *Embriologia Sacra*, was diffused by Count Giuseppe E. Ventimiglia, Chief Police-Magistrate in Palermo, throughout all Parishes in Italy and was printed in a number of editions².

Following a lecture on this subject which was given by Cangiamila himself, who had become General Inquisitor in the Kingdom of Sicily, at the Accademia del Buongusto in Palermo in 1755, the Government took the initiative to set up a number of places of treatment for the drowned (Stabilimenti di Soccorso).

On the same subject, most important were the works of Sguario (1761) and Vicentini (1768), those of Targioni Tozzetti (1771) for the Grand Duchy of Tuscany, of Testa in Bologna (1780), the translation of the work of Gardane (1775) at Modena and of the work of Tissot (1776) in Naples³, all these publications were most significant because they served as models for similar official measures taken by the Governments in the various states into which Italy was divided at the time.

A particular interest in the matter was shown by the competent authorities of the Republic of Venice, a city that, alongside with Amsterdam, was faced daily with problems connected with drowning. Different from the Dutch city, however, where the Salvation Society was set up by private citizens, in Venice the first "First Aid Service for the Drowned" run by the state was started in 1768; its organization as well as its regulations were set by the Health Authority, a public office which was run with a "modern" approach and which dated from 1485.

Contrary to the keen attention shown by Public Authorities to the question of drowning, and perhaps as a result of that, private organizations were quite unconcerned about the matter: the Brotherhoods and the Arts & Crafts Corporations (Scuole), although very prone to charity, paid no interest at all to the reanimation of these who suffered from the effects of submersion.

The *Dissertazione Epistolica*, by Eusebio Sguario (Venice, 1761) which relates, among other things, how, on November 13th 1748 a girl who had fallen into a well was reanimated by means of mouth to mouth blowing, arose such interest that, two years later, it was printed and issued in installments in the *Giornale di Medicina* which dedicated a lot of news, reports and dissertations to this subject. (Fig. 1).

The diffusion of successful experiences about life-saving (by Sguario and others) as well as the ever-growing knowledge on the matter encouraged the Health Authorities to entrust Francesco Vicentini to write a handbook of directions that could be easily understood. On December 24th 1768 the first *Terminazione* (a final injunction) by the Health Authority (Fig. 2) was issued together with some *Notes on how to rescue the drowned*⁴. (Fig. 3)

This *Terminazione* prescribed in a clear and succinct way the most common directions about saving the drowned, giving priority to pulmonary insufflation, both by directly applying the rescuer's mouth to the victim's and with the aid of appropriate instruments, disregarding all other measures.

Clear distinctions were furthermore made about areas of competence, e.g. between the person involved in life-saving by mere chance and the task of doctor or surgeon and, finally sums of money were destined as prizes or punishments meted out to those who failed to help in life-saving⁵.

The *Proclamazione* which was issued on December 5th 1770, summarizing the recommendations of the previous *Terminazione*, stressed for the first time the importance of tobacco smoke insufflations into the intestines⁶ and mentioned the use of "blowing tubes" (Fig. 4) in order to obviate the inconvenience of placing one's own mouth upon the victim's; that was followed by a list of drug-stores, one for each Sestiere (or District), where these tubes were left in custody. After the *Proclamazione* and the *Terminazione*⁷ of June 1st 1778 which reinforced the previous instructions, the "blowing tubes", the precursors of

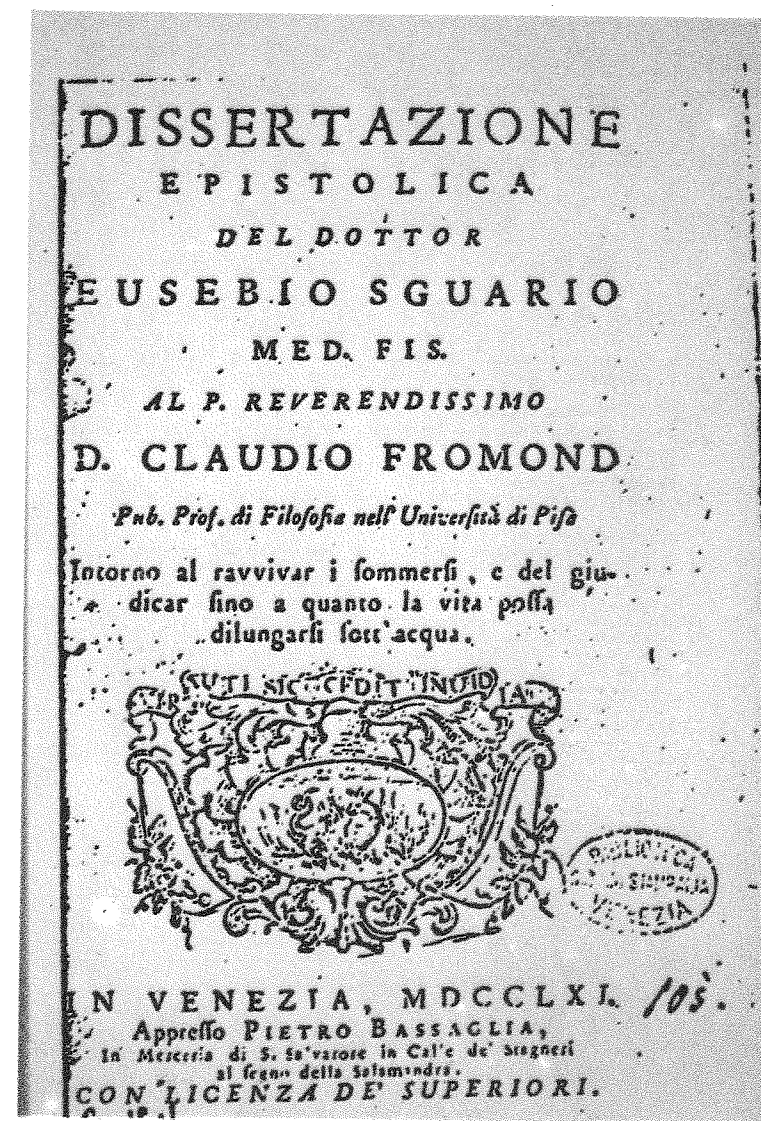


Fig. 1 — The *Dissertazione Epistolica intorno al ravvivar i sommersi* by Eusebio Sguario (Venice, 1761).

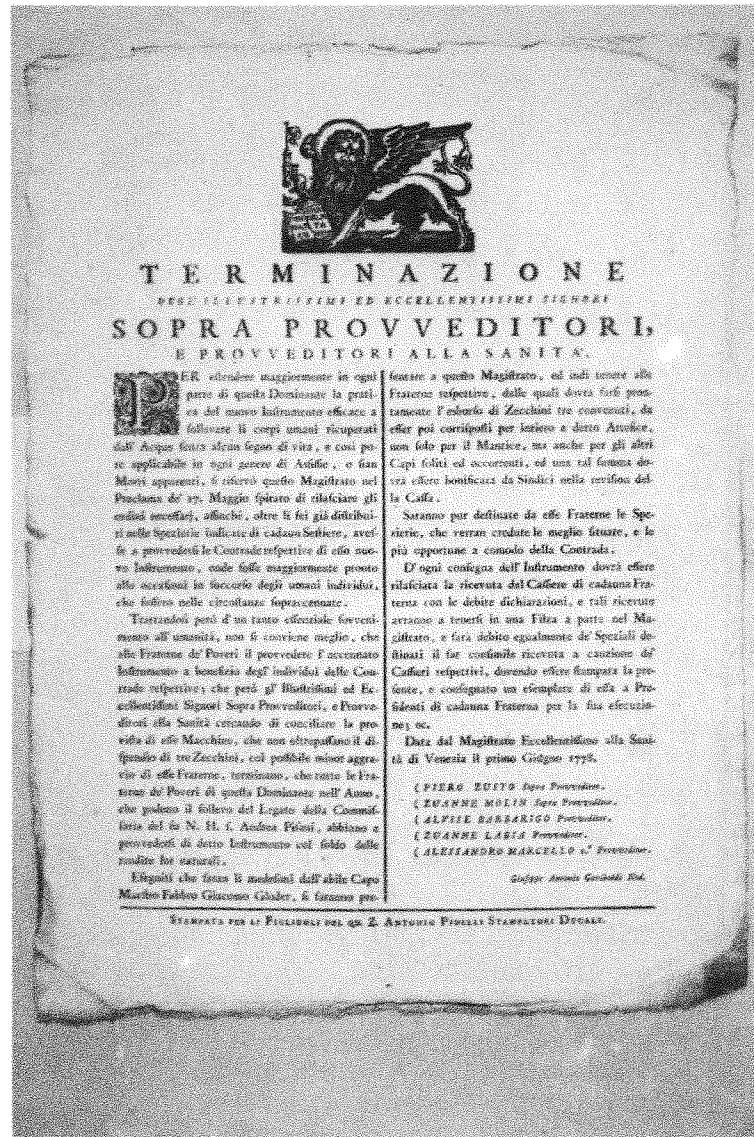


Fig. 2 — The *Terminazione degli illustrissimi ed Eccellentissimi Signori Sopra Provveditori e Provveditori alla Sanità* (Venice, december 24th 1768).

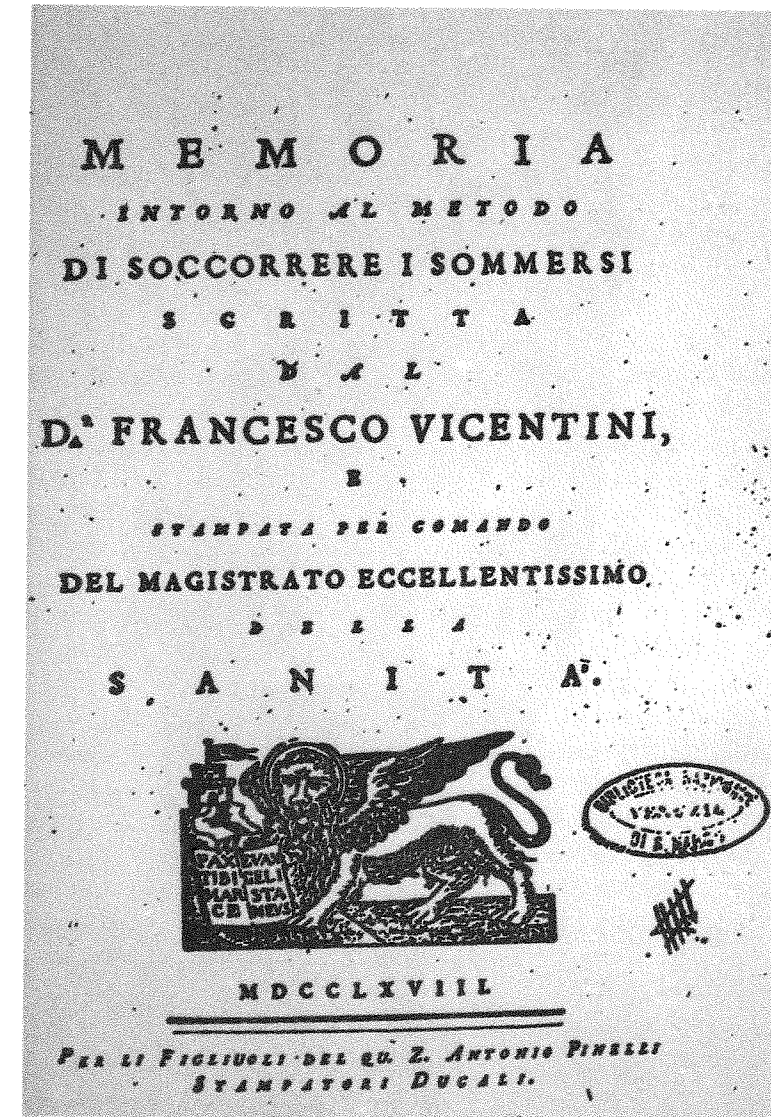


Fig. 3 — The *Memoria intorno al metodo di soccorrere i sommersi* by Francesco Vicentini (Venice, 1768)

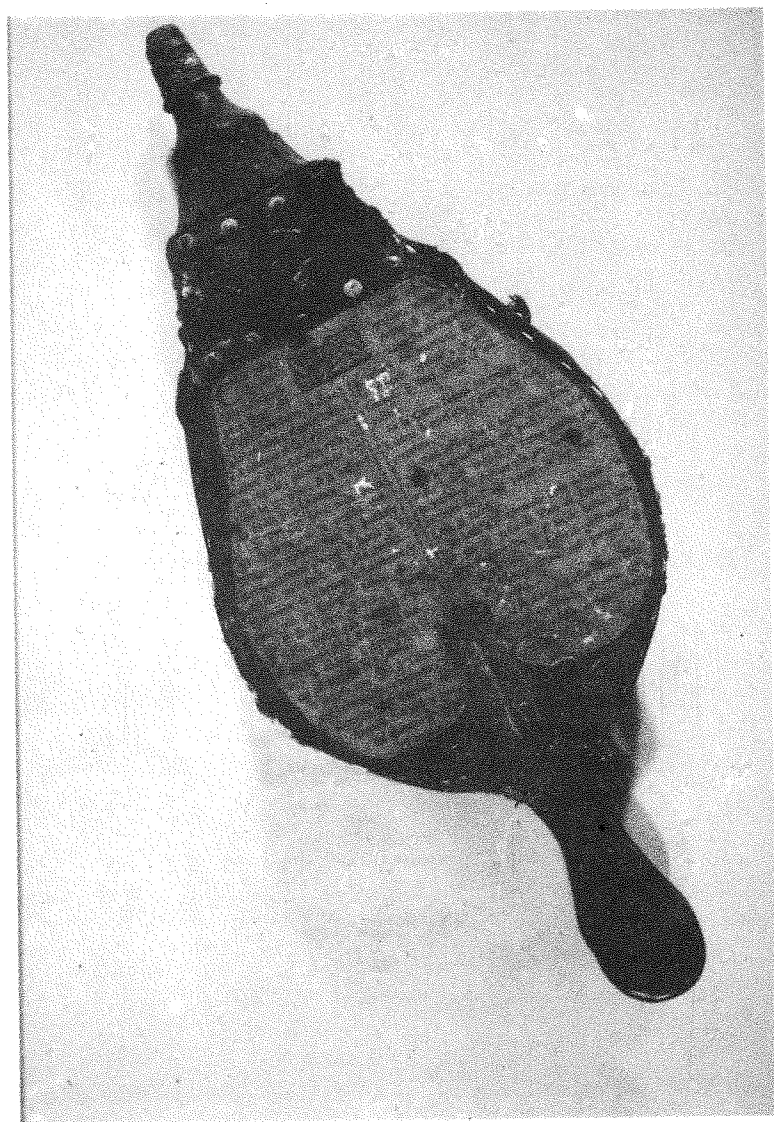


Fig. 4 — The blowing tube

the Ambu of today, were given wide publicity and kept at the public's disposal also in the lagoon islands as well as along the coastline areas.

Finally, on August 8th a *Terminazione* was issued ordering that "whenever any sailing-ship was about to set off, it should be equipped with the said bellows, and that a receipt should be given upon their delivery on board⁸. Later on, the respiratory bellow was replaced by a more complete "reanimation box" which we know about thanks to a receipt signed by the Parish priest of the Church of St. Geremia, dated February 3rd 1795.

On February 22nd 1795 the last *Proclamation* was issued, ordering that such apparatus should be kept also in Parishes and convents⁹.

After the fall of the Serenissima in 1797, during Napoleon's rule, the laws and regulations of the 1000-year-old Republic preserved their validity. In 1806 a *Decree* was in fact issued which adopted the Laws of the Serenissima. The same was done by the Royal Imperial Habsburg Government which issued a *Government Circular* on this subject on June 7th 1837.

When political unity was achieved under the Kingdom of Italy (1866) the legislative function over Public Health passed on to the Central Authority which unified and extended the edicts and notices of the previous administrations throughout the peninsula. Among there, it is interesting to remember the *Health Regulation of the Royal Sardinian Navy* which also contained some directions for rescuing the drowned covering, among other things, respiratory reanimation through the nose (by means of a small tube equipped with a bellow) or by electrical stimulation of the diaphragm.

In 1878 the *Health Regulations for Rescuing*, issued by the Royal Italian Navy, on the contrary, disregarded any respiratory reanimation techniques, mentioning only the methods of warming, emptying the stomach and rubbing the body.

This problem, however, had by then become so widely felt that the *First International Conference of Life-Saving* was held in Marseille in 1879. This event probably influenced the initiative

of Arturo Passerini from Finale who, a pioneer for swimming, established the *Italian Society of Life-Saving* (SIS) "Natatorium" at Ancona in 1899. The aim of this association was to emphasize the usefulness of being able to swim well (correctly) in order to look after one's own safety when in water, at the same time stressing the need to train people, through swimming, to practise life-saving and giving first aid to the asphyxiated.

From that moment on, all swimming societies (Rari Nantes) made it compulsory for their members to attend life-saving training courses.

With the development of bathing and the growing interest for underwater activities, as well as for swimming and rowing, the number of casualties due to drowning has inevitably increased among the young, owing to lack information, imprudent behaviour and also non-compliance with the simplest rules of sport hygiene. Consequently, in 1930 the Italian Swimming Federation made it compulsory for the "apprentice category" to attain a first degree life-saving patent and in 1939, under the auspices of CONI, the SIS "Natatorium" was fully integrated into the Italian Swimming Federation and became the "Life-Saving Branch" of same.

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¹ Methods for treating the drowned throughout time: in order to free the respiratory tract and the stomach from water, the drowned person was hung by his feet; rubbing and frictions were carried out by means of brushes, flannel cloths either dry or imbued with spirits or ammonia; warming up was also practised as well as skaking, blood-letting, stimulation of the pahrnx and of the nasal mucous membrane by means of feathers and sneezing powders as well as tobacco smoke enemas.

² CANGIAMILA F.E., *Embriologia Sacra, ovvero dell'uffizio dei Sacerdoti, Medici, e Superiori, circa l'eterna salute de' bambini racchiusi nell'utero*, Stamperia di F. Valenza, Regio Impressore, Palermo, 1745.

Editions: Milan 1751 and 1839; Leghorn 1756; Venice 1769; Munich 1764; Augsburg 1765; Paris 1762 and 1774.

Chapter X of Book III illustrates the measures to be taken under similar circumstances: 1) blowing in warm breath through a tube introduced into the baby's mouth, while at the same time holding its nostrils closed; 2) sucking the baby's nipples which are very responsive to stimulation; the latter, being thus transmitted along the cardiac and pulmonary plexus as well as the vagal nerve, reaches the brains; 3) tickling the soles of the feet with a feather; 4) having the baby take a hot water bath after adding into it such aromas as orange, rosemary, laurel; 5) not excising the umbilical cord; on the contrary, in case the placenta has already been expelled, it is advise to burn the placenta attached to it, in this way arousing the spirits still present in the amniotic sac, thus directing their influence towards the newborn baby; 6) blowing in tobacco smoke into the rectum in order to stimulate the intestinal peristaltic movements affecting the diaphragm, lungs and the heart.

³ SGUARIO E., *Dissertazione epistolica intorno al ravvivar i sommersi*, P. Bassaglia, Venezia, 1761.

VICENTINI F., *Memoria intorno al metodo di soccorrere i sommersi*, Figliuoli del Qu. Z.A. Pinelli, Stampatori Ducali, Venezia, 1768.

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⁴ In this work the autor laid emphasis upon the importance of pulmonary insufflation which could be carried out in three different ways: "the first way consists in applying one's own mouth to that of the drowned person and, holding his nostrils closed, to blow in at the same rhythm that we breathe, which is indeed the easiest and the quickest way. The second way consists in blowing air with any type of tube: the third way consist in blowing air through a tube inserted into a cut made in the trachea".

ARCHIVIO DI STATO DI VENEZIA, *Terminazione dei Sopra Provveditori e Provveditori alla Sanità, 24 dicembre 1768*, — Figliuoli del Qu.Z.A. Pinelli, Stampatori Ducali, Venezia, 1768.

⁵ These methods were son spreading from Venice not only into the neighbouring territories (Padua, Verona), but also into Naples where, during the sessions of January

25th and April 14th 1769, the Supreme Health Magistrate was already prescribing similar measures, which were reinforced in the *Regulation for Reanimation* of 1856.

Thanks to Giovanni Tangioni Tozzetti who, in 1771, reported on the "Venetian recommendations" to the Florentine Medical College, on December 28th 1772 a *Notice* was issued by the Grand Duke Leopold of Tuscany which adopted them.

This *Notice* was followed by the *Sovereign Orders and Regulation for Merciful Aid* issued in 1821 and 1850.

ARCHIVIO DI STATO DI FIRENZE, *Notificazione dei deputati della Camera di Commercio, Arti e Manifatture, Firenze, 28 dicembre 1772, Leggi e Bandi, vol. VI n° LXXXVI.*

⁶ For what concerned the introduction and use of tobacco smoke enemas, the contacts that Francesco Vicentini had with the "Life-Saving Society" in Amsterdam were fundamental.

ARCHIVIO DI STATO DI VENEZIA, *Proclama dei Sopra Provveditori e Provveditori alla Sanità, 5 dicembre 1770, Figliuoli del Qu.Z.A. Pinelli, Stampatori Ducali, Venezia, 1770.*

⁷ ARCHIVIO DI STATO DI VENEZIA, *Proclama dei Sopra Provveditori e Provveditori alla Sanità, 27 maggio 1778, Figliuoli del Qz.Z.A. Pinelli, Stampatori Ducali, Venezia, 1778.*

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⁸ In the Republic of Venice all ships were owned by the State, which rented them to merchants who used them for their commerce.

⁹ On February 10th 1842, under the Habsburg domination, a *Notice* was issued extending such competence to Police Stations and to the Fire Brigade.

ARCHIVIO DI STATO DI VENEZIA, *Proclama dei Sopra Provveditori e Provveditori alla Sanità, 25 febbraio 1795, Figliuoli del Qz.Z.A. Pinelli, Stampatori Ducali, Venezia, 1795.*

¹⁰ Vedi anche:

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