



Contribution ID: 6

Type: **extended abstract + paper**

## Boats propelled by paddle wheels and animal propulsion: a curious history

*Thursday, 14 November 2019 11:20 (20 minutes)*

In the eighteenth century, there were three major innovations that produced significant changes to shipbuilding and the ship. This is the advent of iron construction, the use of the alternative steam machine and the invention of propeller propulsion. The incipit of the development of steam propulsion originates in the mechanical transmission of boats with paddle wheels. Already in the Renaissance scholars and inventors of the most diverse fields of knowledge had imagined being able to apply the paddle transmission to the motion of a boat. We find examples of this in manuscript and printed treatises on the most ingenious inventions and projects of the time. However, the real development of the steam engine-propelled ship came when the propeller replaced the paddle wheel, so it is an invention of recent times, perhaps even taken from the technology of windmills. The need to have a driving force able to rotate an endless screw, even if called a propeller-screw, caused numerous well-known or less known authors to experiment in the design of curious boats with wheels formed with blades moved by human or animal propulsion. In this brief note, we want to talk about the development of a naval propulsion system which, in the pioneering period of the development of steam propulsion, played a not inconsiderable role in the evolution of the paddle wheels transmission.

**Primary author:** Prof. CORRADI, MASSIMO (Dipartimento Architettura e Design, Università di Genova)

**Presenter:** Prof. CORRADI, MASSIMO (Dipartimento Architettura e Design, Università di Genova)

**Session Classification:** History 1

**Track Classification:** History of shipbuilding and navigation