

**Márton Galambos:**  
***Pharmacology for Veterinarians and Farmers,***  
***accompanied by several hundred Hungarian prescriptions.***  
**Published by Gusztáv Heckenast, Pest 1871**

**About the author:** Márton Galambos (1820–1872)

He was a true polymath: he obtained a degree in the humanities in 1842, a diploma in surgery and obstetrics in 1846, a veterinary degree in 1847, and a medical doctorate in 1858. For a period of time, he taught nine subjects simultaneously at the Imperial and Royal Veterinary Institute: botany, chemistry, pharmacology, therapeutics, natural history, animal husbandry, obstetrics, general pathology and therapy, and pathological anatomy. He was among the first to recognize that the virus responsible for rinderpest (*pestis bovina*) could infect smaller ruminants – such as sheep and goats – and that by artificially inoculating these animals, protective immunity could be induced.

Major works:

- *The Transmission of Contagious Rinderpest to Sheep* (1862)
- *Pathological Anatomy Based on the Lectures of Dr. Márton Galambos* (1865)
- *Pharmacology for Veterinarians and Farmers, accompanied by several hundred Hungarian prescriptions* (1871)

**About the historical textbook:**

This was the first veterinary pharmacology textbook written in Hungarian. It was published in 1871 by Gusztáv Heckenast in Pest (Pest, Buda, and Óbuda were three separate cities that merged to form Budapest in 1873).

The scientific medical, veterinary, pharmaceutical, and chemical terminology of the late 19th century uses Latin terms as well as Hungarian technical terms created during the language reform of the 18th century. (This is why the glossary compiled by K. Karlovsky Geyza is particularly valuable: *Hungarian scientific, folk, and regional names of medicines with their Latin meanings – A practical handbook for pharmacists*. Schlesinger Jakab és Társa Könyvnyomdája. Budapest 1887.)

The textbook comprises 407 pages and is divided into two main parts.

The General part discusses the concept of medicine and the modes of action of drugs, providing an overview of 19 categories of pharmacological effects. It outlines the principles and methods of proper dose selection, lists the various units of measurement, and presents the decimal (modern SI) system together with conversion ratios from traditional units. It gives detailed guidance on how dosages must be adjusted for juvenile animals of different species. A separate chapter is devoted to the various routes of administration. The rules of prescription writing are illustrated with practical examples. Galambos classifies dosage forms into solid, semi-solid, liquid, and gaseous groups, and further subdivides them according to route of administration and their applicability to different animal species.

The Special part first discusses organic medicinal substances, followed by inorganic substances, arranged primarily according to their pharmacological effects whenever possible, as it can be seen below:

- I. Organic medicinal substances
  1. Demulcent, emollient, and nutritive substances
    - a. Nitrogen-free
      1. Gums and mucilages
      2. Carbohydrate-containing substances
      3. Fats and oils
    - b. Nitrogen-containing
      1. Animal-derived
      2. Plant-derived
  2. Bitter and digestive-enhancing substances
    - a. Pure bitters
    - b. Bitters containing mucilage or starch
    - c. Aromatic bitters
    - d. Resinous bitters
  3. Tannin-containing substances
    - a. Pure tannin-containing substances
    - b. Tannin and bitters
    - c. Tannin and volatile oils
    - d. Tannin and alkaloids
  4. Volatile substances with transient stimulant effects on the nervous system
    - a. Essential oils and aromatic substances
    - b. Camphor
    - c. Alcohol and ether
    - d. Balsams and resins
    - e. Ammonia
  5. Acrid, irritant substances
    - a. Acrid volatile-oil substances
    - b. Alkaloidal acrid substances
    - c. Substances containing resins and alkaloids
    - d. Substances containing alkaloids and acids
    - e. Acrid substances containing volatile oils and resins
  6. Narcotic and circulatory-acting substances
    - a. Hydrocyanic acid-containing substances
    - b. Substances acting primarily on the brain
    - c. Substances acting on the brain, causing mydriasis or affecting the vagus nerve
    - d. Substances acting on the spinal cord
- II. Inorganic medicinal substances
  1. Non-metallic substances
  2. Metals
    - a. Oxides
    - b. Alkali metals
    - c. Alkaline earth metals
    - d. Earth metals
    - e. Heavy metals

- f. Noble metals
- 3. Mineral and plant acids
  - a. Mineral acids
  - b. Organic plant-derived acids
- III. Physical therapeutic effects
- IV. Prescription samples
  - A set of 306 Hungarian-Latin prescription examples, using the organic and inorganic substances described in the special part, each with a brief indication.

Galambos describes a total of 125 medicinal plant species. Based on the Latin drug names and the Hungarian plant names, most of them can be identified with reasonable precision at the species level, although he only rarely provides binomial Latin names. The active constituents are given in Hungarian terminology, often derived directly from Hungarian plant names; Latin chemical nomenclature appears only occasionally.

The pharmacological classifications do not always correspond to modern knowledge. Some species are assigned indications that are no longer considered appropriate, and several highly toxic plants – long since abandoned in therapy – are also included. In a few cases, he describes therapeutic applications that are now regarded as entirely unacceptable. The uses of mild, locally native medicinal plants, however, generally align with contemporary understanding.