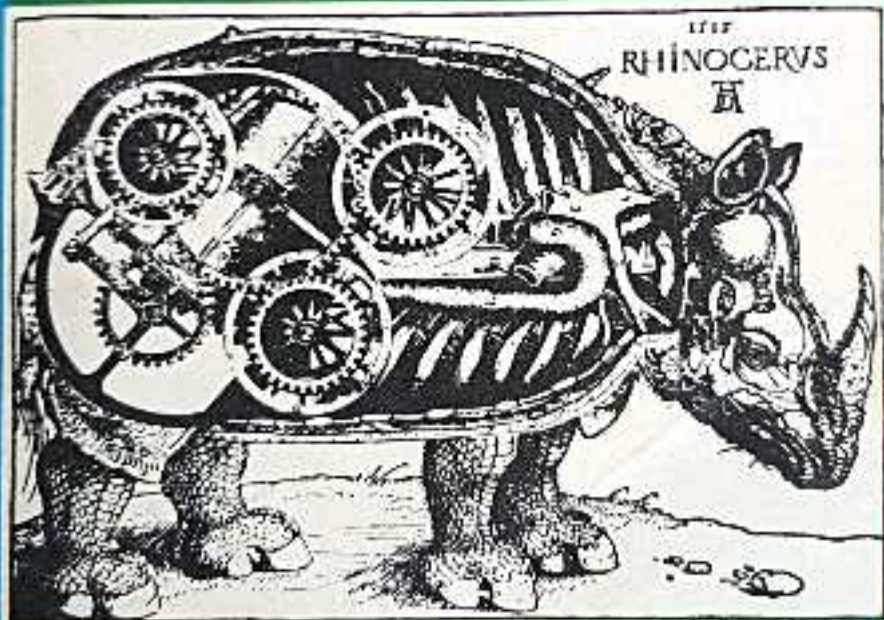


Physiology for Everyone

Mir Publishers

Moscow



B.F. Sergeev

Physiology for Everyone

by Boris Sergeev

Translated from the Russian
by Oleg Meshkov

**Mir Publishers
Moscow**

Contents

Water — a Personal Ocean	
The Substance to Which Our Planet Owes Its Existence	7
'Live' Water	10
Dead Water	16
How Much Do We Weigh?	18
Crocodile Tears	21
Do Fish Drink?	26
Can the Air Be Squeezed Dry?	28
The Water Manufactory	32
Building Materials	
Lucullus' Feats	36
Teeth Which 'Crawl'	46
A Thousand-Year-Old Mystery Solved	53
What Do Cows Eat?	57
There Are Different Kinds of Pans	61
The Food Industry	70
The 'Health Stores' of Nature	76
Ventilation	
A Vital Element	86
Supply Department	88
Diving Suits and Aqualungs	97
In Search of Oxygen	102
Slag and Ballast	113
Thousands of Millions of Carriers	
It Just Dare Not Get Tired	121
Waves	133
Hydraulics	141
Where Can One Get Some Firewood?	146
The Fire-Bird	
Just Like a Fairy-Tale	164
Solving the Mystery	169

Our planet, the Earth, is the home of hundreds of thousands of living creatures. Life has permeated everywhere. It has ascended to the tops of the highest mountains, where there is hardly any air, and has hidden beneath the expanses of the oceans, reconciling itself to the tremendous pressures exerted by the waters. Life has come to the hot, arid deserts and to the eternal ice of the Arctic. Living creatures have adapted themselves to an absence of oxygen, to everlasting gloom, and to silence. But, wherever living organisms have settled, they need food which has to be distributed throughout their bodies, and they have to carry out the processes of metabolism. They also need to feel at home in their environment and start families to ensure the survival of the species.

This book will tell you about Nature's amazing inventions which have made it possible for animals to populate our Earth, dealing as it does with live lanterns, radars, animal power stations, the mysteries of digestion, the automatism of the circulation of the blood, which is the body's most perfect transportation system, the structure of photo- and audioreceptors, the mysterious third eye, the secret workings of the brain, and the peculiarities of reproduction.

Man has barely started to become familiar with Nature's ingenious fantasy, but he is already getting to grips with the process of evolution and making use of all Nature's treasures and inventions. The aim of this book is to call the reader's attention to the endless horizons of the science of living beings.