Mechanics and machines

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Abstract. This is an introduction to mechanics and machines, and to basic engineering in general. We first discuss the wheel, and various things that can be done with it, notably with a detailed discussion regarding the pulleys, and their mathematics. Then we go on a lengthy discussion regarding the pendulum, with or without friction, and with the main applications here being the clocks. We then discuss the mechanics of the spades, pliers, shears, basic or more advanced, and other digging and cutting tools. Finally, we provide an introduction to the construction and mathematics of bridges and dams.

Preface

This is an introduction to mechanics and machines, and to basic engineering in general. We first discuss the wheel, and various things that can be done with it, notably with a detailed discussion regarding the pulleys, and their mathematics. Then we go on a lengthy discussion regarding the pendulum, with or without friction, and with the main applications here being the clocks. We then discuss the mechanics of the spades, pliers, shears, basic or more advanced, and other digging and cutting tools. Finally, we provide an introduction to the construction and mathematics of bridges and dams.

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Teo Banica

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Wheels, pulleys

You came and changed the way I feel
No one could love you more
Because you came and turned my life around
No one could take your place

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There's still fountains down there
Look on down from the bridge
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Congratulations for having read this book, and no exercises for this final chapter.

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