During the last experiments the stator magnet changed place and pushed against the magnetic fields of the tracks from above. Simply because more thrust was developed by this way. The next wheel will have the tracks mounted on a different level. It means that the first track will have a bigger distance to the stator magnet than the last track. This should make the sticky spot weaker and the final 'kick off' stronger. The final wheel will be mounted vertically, like the Minato Wheel.

Thanks to the invention of the Neodymium magnet in 1983, magnets became much more powerful while the size and length decreased. Before 1983 a lot of the experiments could not be done since the size of the magnets made the positioning of several magnets in tracks like this was impossible. It is my personal believes that the strength of these magnets will lead to results that are impossible according to the physical law books, because these magnets did not exist when those books were written.

Until the moment I write this I have not found the perfect energy source yet but by exploitation all the material and findings on my web site I hope that more people get interested and will help searching for a great energy device that will not pollute the air which our children and grand children have to breath.

Mechanism of Drive-Free Motion

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The article presents results of the experimental study of the motion created by vibrations of an internal mass of the system of bodies accompanied by impacts of the unbalanced load with the external body. This type of propulsion drive is known by a number of names. Among these are the ***vibrational propulsion device*** *and* ***reactionless machine****. Sometimes it is called the* ***inertioid*** *[1, 2]. The vibrational transposition is proved to go on by means of internal forces of a system of bodies [3-5]. The Tolchin's inertioid [6] is considered to be the first device that used the forces of inertia to create the reactionless infinite motion in space. We are not in a position to be a judge of this. There exist a number of projects of such machines but experimental results concerning such kind of motion are very limited. Below there are the experimental results on average velocities of such a motion and the description of a propulsion device a main particularity of which is absence of wheel-drive.*

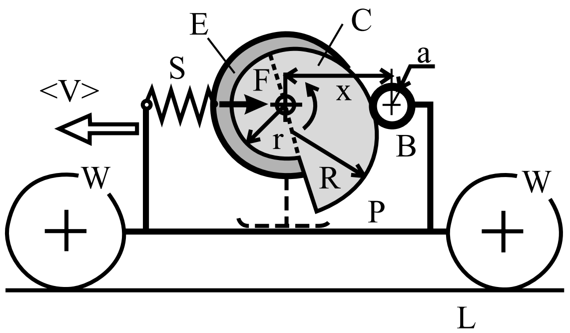

Fig. 1
Scematic representation of a vibratory-impact self-transposition

The unbalanced load in this device is an electric motor E of mass m that executes undumped vibrations relative to a platform P of mass M with four wheels W which can roll on a horizontal surface L with rolling friction the coefficient of which is k. The frictional force is determined to be a force which adjusts to keep the cart from motion across a surface. A disk cam C at one end of the axle of the motor ensures a prescribed character of the vibrations and elastic impacts between the load m and the follower B of radius a. In present experimental device, the cam C consists of two semicircles of different radii r and R as it is shown in Fig.1. In this experiment r=0.03m, R=0.05m and a=0.01m. The electric motor and the platform are coupled by a connecting spring S. The force F by means of which the electric motor is pressed to the follower varies linearly from F=4N at x=0.04m to F=4.8N at x=0.08m. The compressed spring S is necessary not only for creating close contact between the cam and the follower. The restoring force of the spring produces the transposition of the cart in a direction opposite to **F** when the follower moves without contact from x=2R-r+a up to an impact at $x=r+a$. The impact suppresses the transposition. Another mode of transposition is also possible when the impact of the cam on the follower is a reason of the transposition of the cart in the direction of the force **F**. In this case the frictional force extinguishes the transposition of the cart.

Friction between the load of mass m and the cart is negligible since the corresponding effective coefficient is less than 0.001. The same is for the friction between the cam and the follower. The mass of the spring is m_S=0.007 kg , and the mass of the cam is m_C=0.019 kg. The total mass of the wheels is m_W=0.082 kg. This value can be useful for a theoretical analysis. Thus, the total mass of the unbalanced body is chosen to be much larger than the mass of the cam or the spring: $m = m_E + m_C + m_S \approx m_E$.

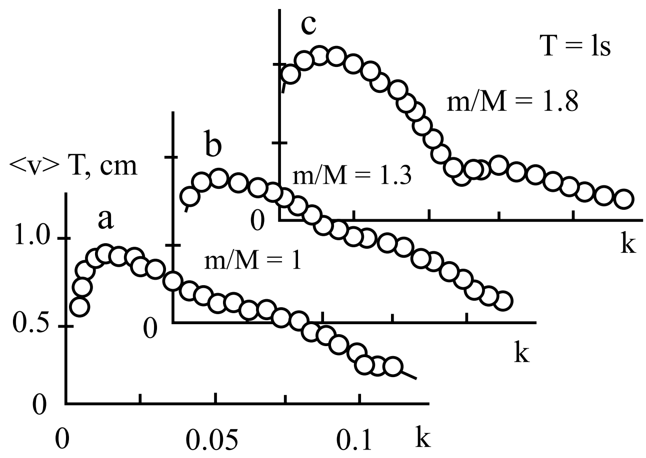

Fig. 2
Frictional coefficient dependence of average velocity of the platform at the period of vibrations T=1s for various mass ratios m/M:
(a) M=0.9 kg , (b) m=1.2 kg , (c) m=1.6 kg

At least in the case of irreversible mode, one could expect that the value of average velocity of transposition $<v>$ must be proportional to the number of impacts per unit of time. In the other words the path traveled by the cart per one impact must not depend on frequency of vibrations. This is a reason why the dependence of the product $<v>T$ versus the value of the friction coefficient k and ratio of masses d = m/M is investigated in this work. Measurements were carried out for two magnitudes of rotation period T= 1s and T=6s of the cam. The obtained results are presented in Fig. 2 and Fig. 3. First of all, the assumption mentioned above is not confirmed.

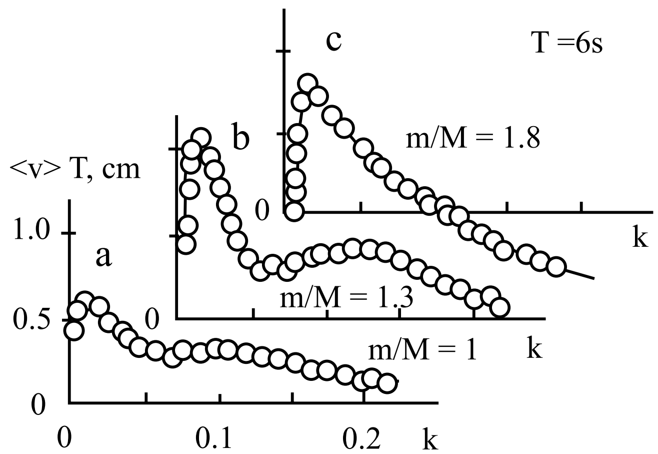

Fig. 3
Average velocity of the platform $<v>$ as a function of frictional coefficient k at T=6s for various mass ratios m/M: (a) M=0.9 kg , (b) m=1.2 kg , (c) m=1.6 kg

The value $<v>T$ for the period of the rotation T=1s sufficiently differs from that for T=6s measured at the same conditions. Besides, when the mass ratio is large the cart can change its direction of transposition. The reason of these results is not clear but this device provides a challenge to explain and investigate this kind of motion that enables us to discover the reactionless motion if it is probable. One should pay attention to a fact that the infinite transposition of the platform takes place even if the friction coefficient k is small.

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