The Antigravity on the Lab Bench

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Based on a modified interpretation of Coulomb's repulsive force, the misunderstood Biefeld-Brown effect can be explained and used to demonstrate antigravity.

1. Introduction

In a German forum, Alfred Schaub explained that he rejects Coulomb's idea [Coul] of a repulsive force with equal charges. This is because no electric field and therefore no force can arise between bodies with the same charge.

In many weeks of experiments with various Faraday cages, different scales and electroscopes, it was not possible to prove the repulsive Coulomb force beyond doubt. All experiments could also be interpreted as a shielding of a previously existing electrostatic force of attraction.

The ultimate experiment, in which the behavior of two nearby ions is observed in an otherwise empty universe, could not be carried out.

Schaub's interpretation does not change physical reality. But it does provide a simple explanation of misunderstood electrostatic phenomena.

This makes it easy to explain why two identical charges inside a field-free Faraday cage do not repel each other. The Biefeld-Brown effect can also be explained and optimized by shielding the electrostatic force of attraction. By arranging the Biefeld-Brown electrodes vertically, antigravity can even be demonstrated and measured using the example of The Bell.

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2. Coulomb's repulsion = shielding of Coulomb's attraction?

An uncharged electroscope lets its arms hang.

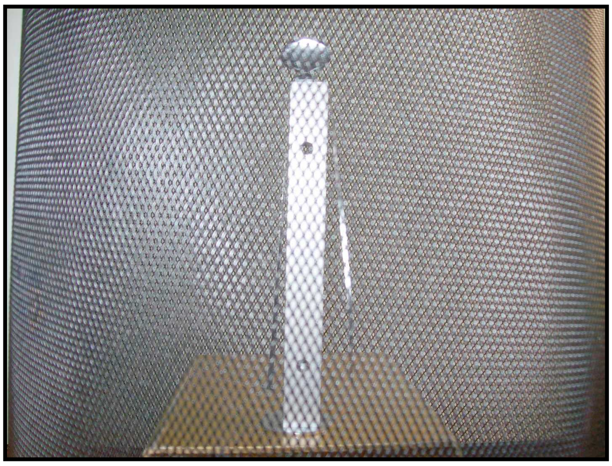
Fig. 1: Uncharged electroscope

As soon as the aluminum strips of the electroscope are charged, they increasingly point in the direction of the environment that attracts them.

Fig. 2: Attraction through the environment

The attraction to the right can be shielded by a large electrode charged to the same voltage between the aluminum strip and the environment. The left-hand strip also benefits somewhat from the shielding to the right.

Fig. 3: Shielding by a large electrode



If the entire electroscope is surrounded by a Faraday cage charged to the same voltage, all attractive environmental forces are shielded.

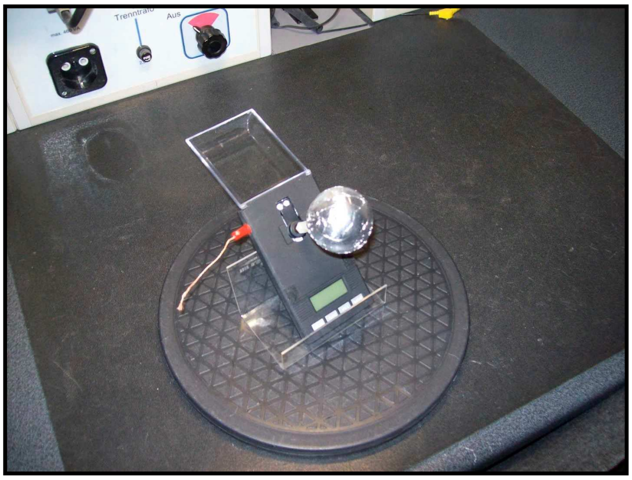
Fig. 4: All-round shielding through a Faraday cage

Coulomb's attraction can be controlled by the charge of the screen electrode:

- A screen placed between the environment and the electroscope suppresses the force between the electroscope and the screen if both are charged to the same voltage. However, this increases the force between the screen and the environment.
- Alternatively, the force between the screen and the environment can be suppressed if both are on the same potential. However, this increases the attractive force between the electroscope and the screen.

The following detail is interesting:

- Coulomb's attractive forces follow the law of distance. They become weaker with the square of the distance.
- However, the absence of force due equal charges is not subject to any distance law. The shielding effect is in principle independent of the distance.

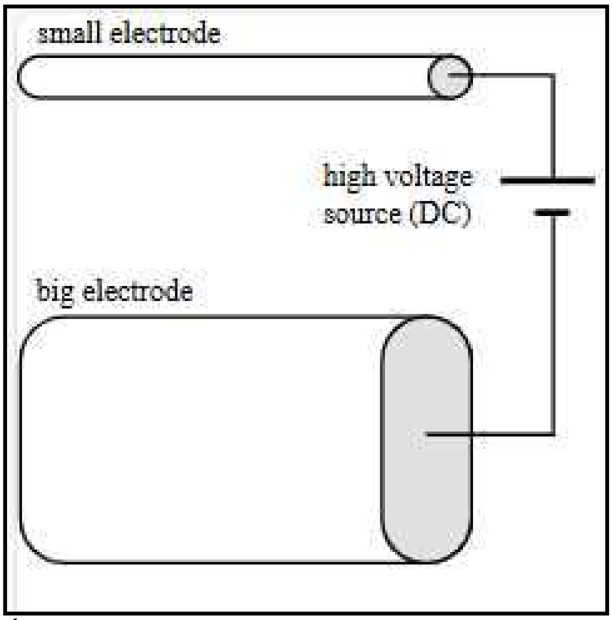


Measurements showed an anisotropic field of attraction of a charged sphere through the environment. The strongest attraction was towards the ground. The attractions to the sides and to the ceiling were significantly weaker. The environment appears electrically neutral.

Fig. 5 : Measuring the environment

Note: It is smart to use the largest possible sphere in order to avoid air ionization and maximize the attractive forces.

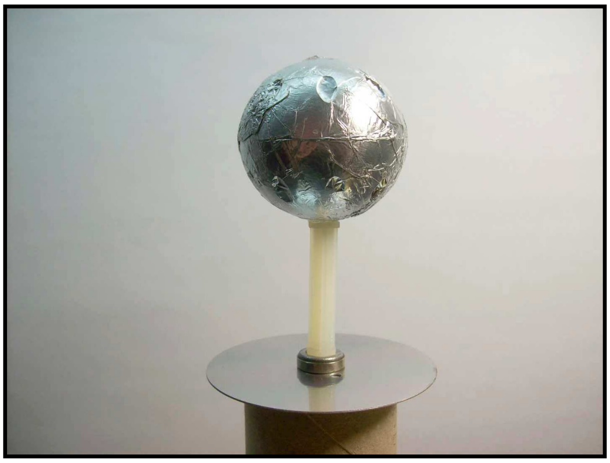
3. The Biefeld-Brown effect



The Biefeld-Brown effect is widely misunderstood. Many suspect electron winds [BB]. The construction shown on the left is also based on a lack of understanding.

Only the attraction of the small electrode by the ground must be prevented. However, the screen electrode should have a different shape and be at ground potential.

Fig. 6 : Biefeld-Brown Capacitor



The left-hand arrangement is correct. The sphere is positively charged. The screen plate must be kept at earth potential so that it is not attracted by the earth. Attractive forces arise between the sphere and the screen, which are absorbed by the insulator.

Fig. 7 : Corrected Biefeld-Brown arrangement

Neither an electron wind nor air is necessary for the Biefeld-Brown effect. What is necessary, however, is an environment to which electrostatic forces of attraction can act. No force would be detectable in empty space.

This corrected Biefeld-Brown arrangement is used below.

4. *Antigravity*

With a little imagination, one can recognize a very familiar bell shape in the lower flat disc and the sphere above it.

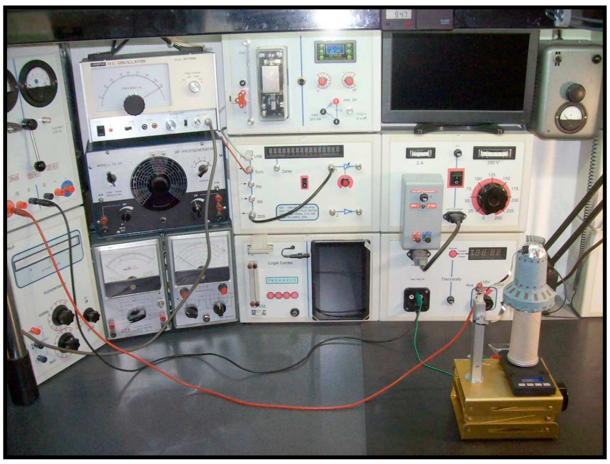
Fig. 8 : The Bell

https://history.fandom.com/wiki/Die_Glocke

The previously shown Biefeld-Brown arrangement is extended with some paper to form the model of The Bell.

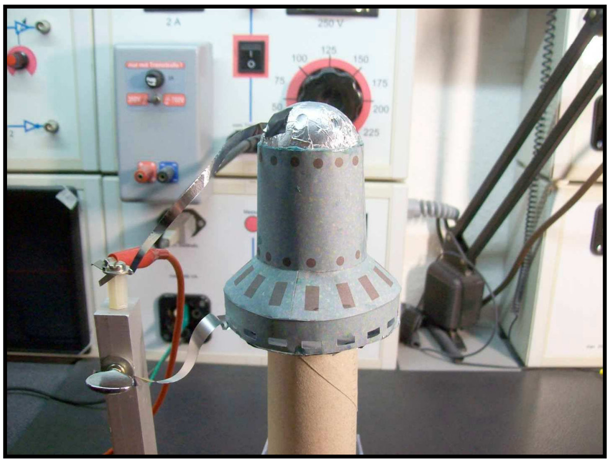
Fig. 9: Model of The Bell

The following demonstration and measurements are fascinating because The Bell seems to become lighter on its own without moving parts and without air ionization as soon as the operating voltage of the model is switched on.



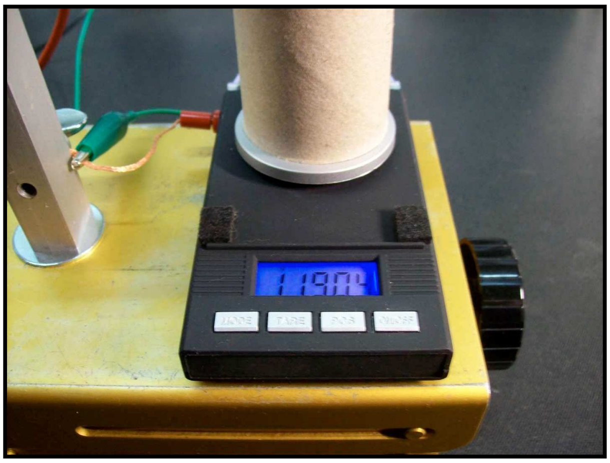
On the left, the voltage source with earthed negative pole. On the right, The Bell on the scale.

Fig. 10: Setup Antigravity



An external voltage source is connected between the upper sphere and the shielding foil attached under the base. The supply line is made with the two aluminum strips. In a larger bell, the voltage source would of course be located inside the bell.

Fig. 11: Connecting the voltage source

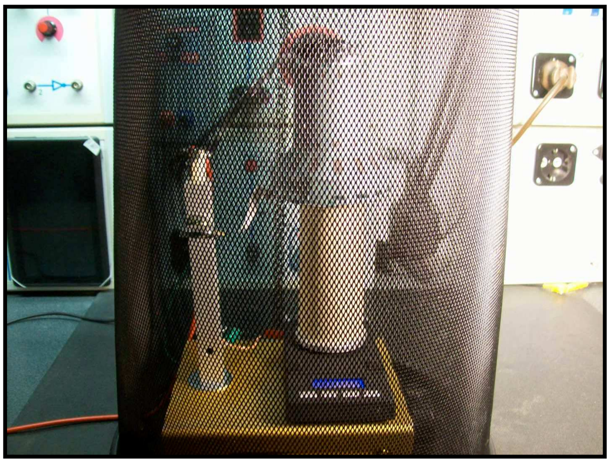


The Bell weighs 11,904 grams.

Fig. 12: Weight without operating voltage

After switching on the operating voltage, the weight drops to 11,879 grams. A weight reduction of around 20 mg is therefore measured.

Fig. 13: Weight with operating voltage



Some measurements were carried out in a grounded Faraday cage in order to compare the attraction by the environment with a defined close-range attraction.

Fig. 14 : Measurement in a Faraday cage

Three series of measurements were made:

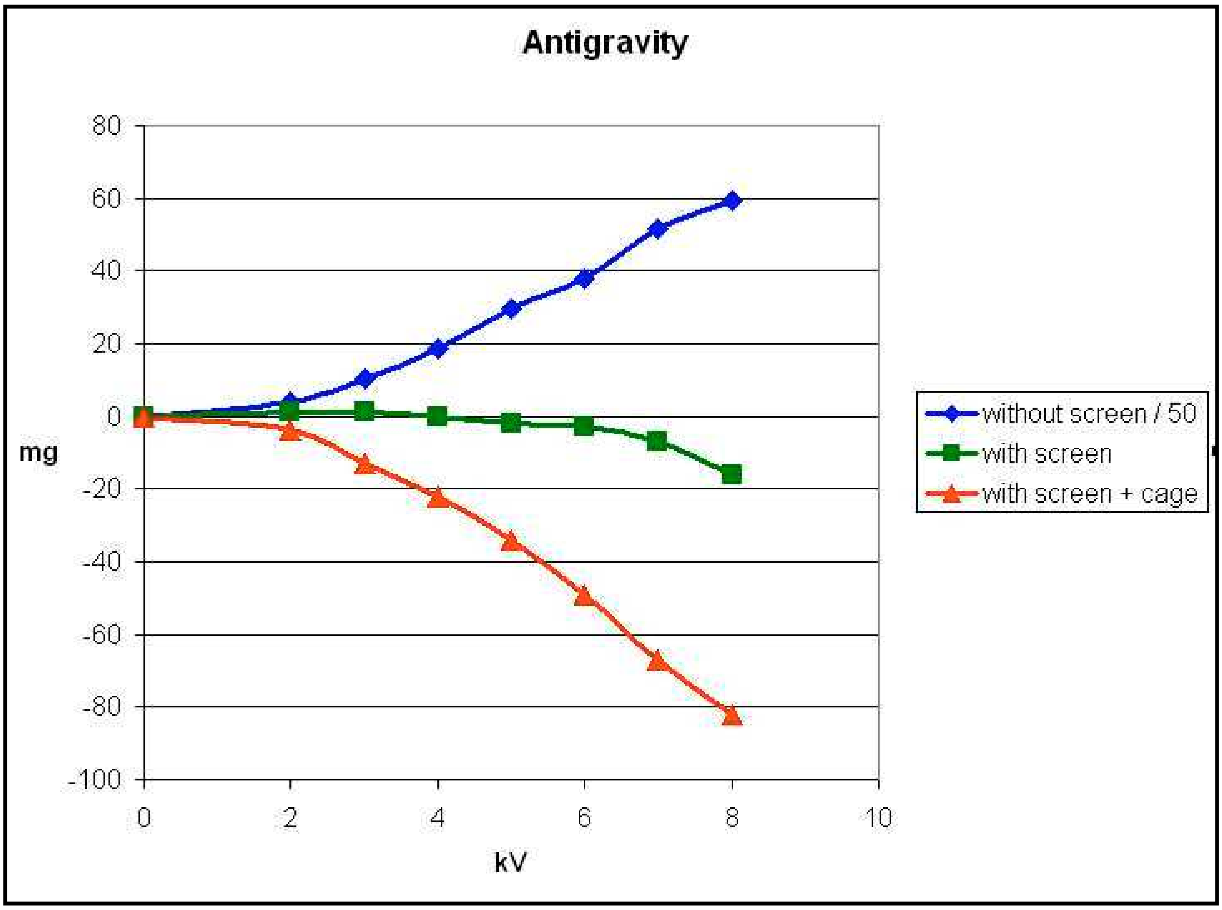


Fig. 15: Measurement of antigravity

In the blue measurement series, only the sphere was connected to the voltage source. The shield was not connected. The blue values must be multiplied by 50. With a charging voltage of 8 kV, the sphere is attracted to the tripod and the ground with 60 mg ▪ 50 = 3 grams. The Bell is therefore 3 grams heavier without the shield.

In the green series of measurements, also the screen was connected. The effect is enormous. At 8 kV, the bell becomes 20 mg lighter. As The Bell seems to become lighter “by itself”, the impression of antigravity is created.

In the red series of measurements, the earthed Faraday cage was placed over the entire apparatus, resulting in an increased attraction. Now The Bell becomes 80 mg lighter at 8 kV. The environment therefore attracts The Bell 4 times weaker than the cage.

The maximum charging of the sphere to 8 kV prevents air ionization. This only starts at 16 kV. The electron wind of the usual “lifters” disturbs Coulomb's attraction.

5. Discussion

It is amazing that a small change of perspective on an age-old Coulomb effect can have such an impact. Suddenly, many application doors are wide open that have seemed walled up for centuries.

The elimination of the Coulomb repulsive force is probably also an important step towards the unification of electromagnetism and gravity.

6. Acknowledgments

We would like to thank the forum https://stromrichter.org/, where we were able to carry out our work undisturbed.

[Coul] Charles Augustin de Coulomb, 1785, „Erste Abhandlung über die Elektricität und den Magnetismus“, übersetzt von Walter König im Verlag Engelmann 1890

[BB] https://tu-dresden.de/ing/maschinenwesen/ilr/rfs/ressourcen/dateien/forschung/folder-2007-08-21-5231434330/ag_raumfahrtantriebe/Biefeld-Brown-Effect-AIAA-Journal-Revised.pdf