

# BINDING FORCES

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**M**ATTER, as we know it, is held together by "forces" the nature of which we do not clearly understand. We have developed some very elegant theories to explain most of the observed phenomena, and we add sufficient "correction factors" to make the theory fit the rest. But every now and then we come face to face with something which our theory just will not explain, and rather than admit that our theory is inadequate, discard it and start over again. We just can't bring ourselves to throw out such an elegant mathematical masterpiece, so we usually just turn our backs on the new fact and refuse to recognise it. This is well demonstrated in the matter of binding forces.

Some years ago, following several rather bad aeroplane crashes for which there was no satisfactory explanation, the people from "elsewhere" were asked through "contacts" if these crashes were possibly due to our craft flying too close to their craft. We were informed that while a very few of our craft had suffered in this manner much greater care was now being exercised by the saucer pilots so that this cause was virtually eliminated. We were informed, however, that our pilots flew around in complete disregard of the regions of reduced binding with which this planet is afflicted, and very often their craft were not designed with a sufficient factor of safety and came apart.

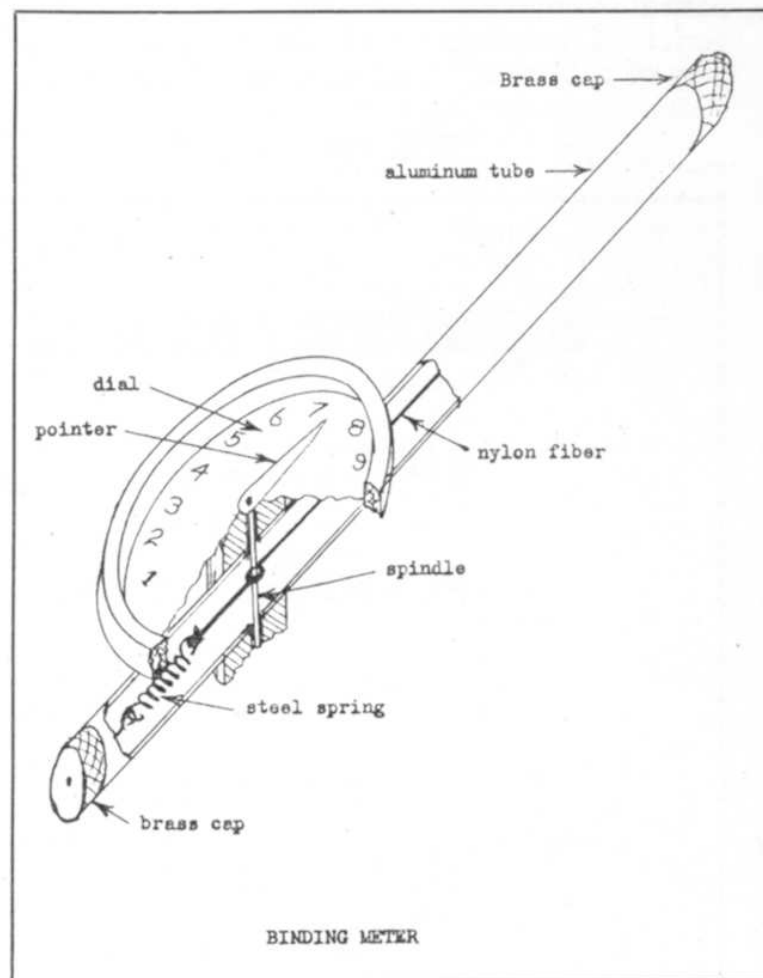
## A counter argument

When we countered by saying that we knew nothing of such regions, we were informed that means for detecting them were easily within our technology and that we should build suitable instruments and then pay attention to what they registered. They also passed a few uncomplimentary remarks about our propensity for shooting off atom bombs which actually created a pair of such "vortices" with each explosion.

The principle of the "Binding Meter" was then explained to us, and we were left to work out its detailed design. The principle is quite simple: all matter is held together by the relative con-

figurations of the three basic fields of nature, tempic, electric and magnetic. These configurations are characteristic of what we call the molecular structure, and the inter-actions of these fields is *not* linear. Therefore, since the fields interacting are the sums of the local fields and the background fields, such inter-action can be used to indicate certain characteristics of the background, through this very non-linearity.

Structurally the binding meter consists of a nylon fibre which is stressed close to its elastic limit (after having been overstressed to establish stability) pulling against a steel spring which is stressed well below its elastic limit. The nylon fibre is wound around a spindle which carries a



pointer, so that any longitudinal movement of the fibre will cause the spindle to turn and the pointer to move across an arbitrary scale. In setting up the instrument nylon fishing leader was used and pre-stressed to the breaking point and this point noted. The instrument was then threaded and one end fastened to the spring and the other placed under tension to 75 per cent. of the previously noted breaking stress, and the end clamped under a friction washer which was somewhat softer than the nylon, to grip it solidly without deforming the nylon. The whole instrument was then set aside for a few days to make sure that it was stable, after which the pointer was slipped to mid scale and the instrument was considered ready for service.

#### **Many successful instruments**

By making the body of the instrument of aluminium tubing about  $\frac{1}{2}$  in. diameter and 10 in. long, the combination gives very good temperature compensation, and a range of temperature of 100° F. makes less than  $\frac{1}{2}$  division on an arbitrary scale of 12. There is no perceptible change over the complete range of humidity and no barometric sensitivity was observed. Dimensions apparently are not critical, and successful instruments have been made with quite a variety of parameters. Unfortunately, we have no way of calibrating these instruments at the pre-

sent time, and the best we can do is use them for qualitative indication.

My colleagues and I have investigated the general areas through which aircraft have flown just prior to unexplained crashes and we have found several regions of reduced binding, the meters showing several scale divisions change. These regions seem to be roughly circular and about 1,000 ft. in diameter, and probably extend upward quite a distance. A few have been detected by air when planes have flown through them, but fortunately in these cases the craft were strong enough to remain intact.

Whether this is generally true or not we cannot say, but it does appear that things are somewhat stronger in the northern latitudes than they are farther south, and certain areas seem to be permanently afflicted with reduced binding. We do not know if the regions of reduced binding move about or just fade away, but we do know that when we looked for several of them after three or four months we could find no trace of them.

It would therefore appear that this business of reduced binding would stand quite a bit of further serious investigation. Unfortunately, because of the unorthodox source of this information, efforts so far to obtain official recognition have resulted only in more letters being added to the "crank file."

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