

# FLICKERING JELLY



Beatrix Potter, *The Tale of Johnny Town-Mouse*

scaling laws...

# SWELLING OF A SUPERABSORBANT DIAPER GEL

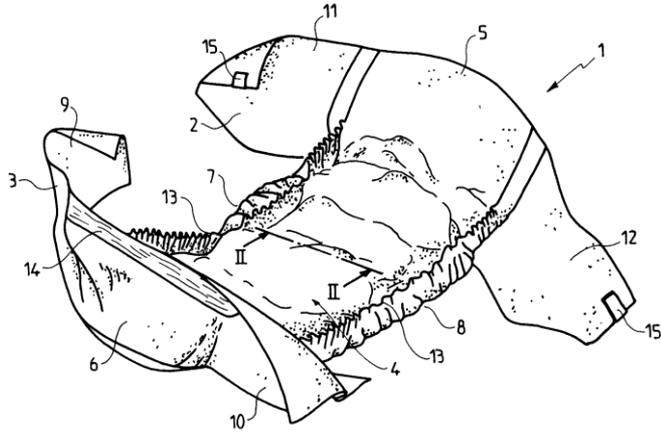


FIG. 1



chemical/mechanical energy conversion...

## LIMP vs. CRISP CARROTS



Bending (poro)elasticity, turgescence regeneration...

# STICKY GEL



what makes it a toy?

# SQUEEZING A STRESS BALL



Hertz and beyond...

## STRETCHING A RUBBER BAND



non-linear elasticity, role of temperature...

## PEELING AN ADHESIVE TAPE



angle and speed matter...

# BREAKING (DRY) SPAGHETTI



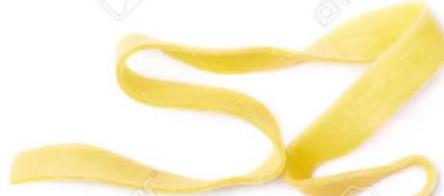
rupture statistics, notch sensitivity...

## SPAGHETTI TWIRLING



<https://www.ippinka.com/blog/twister-spaghetti-fork/>

# FLIPPING TAGLIATELLE

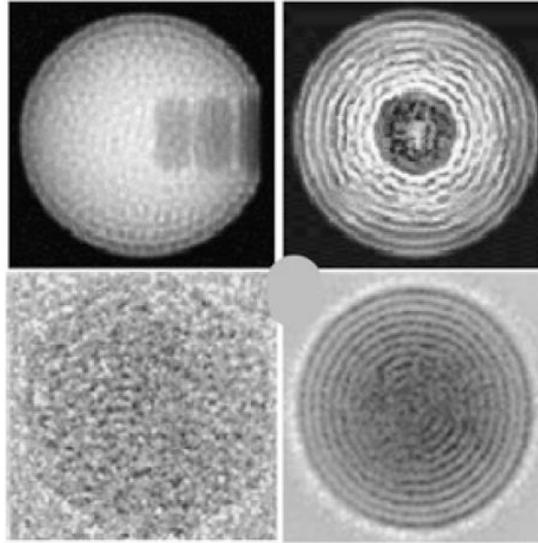


# DNA STORED IN VIRAL CAPSIDS

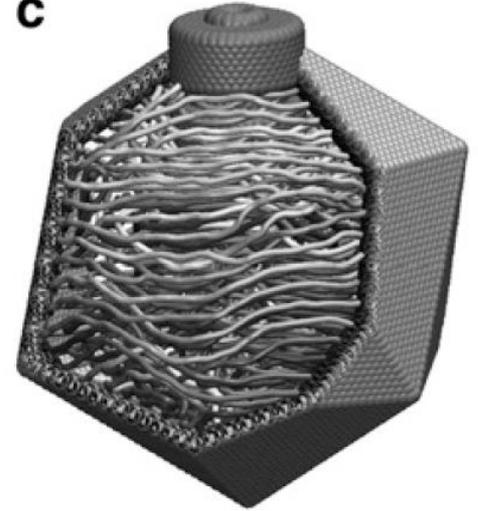
**a**



**b**



**c**



Petrov, Biophys. J. 2008

## THE BRANCH WITH THE FURTHEST REACH (I)



How far can one reach with a given amount of material?

## THE BRANCH WITH THE FURTHEST REACH (II)



WHAT SETS THE SIZE OF FRAGMENTS OF BROKEN EGG SHELLS?



<https://www.naturalexotics.com/store/p/3605-Ostrich-Egg-Shell-Pieces-lb.aspx>