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Recent spectroscopy of Deneb, the well-known A2 type Ia supergiant, has revealed spasmodic changes in the form of a weak, red-shifted component. One fairly obvious explanation is binarity, but the nature of the observations does not support that hypothesis. A more likely cause - as demonstrated by the spectra which we show - is episodic outflow of material from the surface of the star. Since the measured red-shift (about 45 km/s averaged across the disk) is substantially less than the escape velocity, the weak lines are evidence not of ejection of material from the star, but of major, episodic upwellings of material into the upper atmosphere.
