AN 18-YEAR-OLD MAN PRESENTED WITH A TREMOR IN THE RIGHT ARM that had begun 2 years earlier and had progressed to involve the other arm, the head, and the legs. Neurologic examination revealed dysarthria, generalized hypertonia, and a “wing-beating” tremor (Panel A and Video). This low-frequency, high-amplitude, posture-induced proximal arm tremor, elicited by sustained abduction of the arms, with flexed elbows and palms facing downward, is characteristic of Wilson’s disease. The presence of Kayser–Fleischer rings in both eyes (Panel B), a low serum ceruloplasmin level (77 U per liter; reference range, 200 to 1100), ultrasonographic evidence of chronic liver disease, and computed tomographic evidence of hypodensities in the lentiform nuclei bilaterally, the thalamus, and the midbrain were all consistent with a diagnosis of Wilson’s disease. A wing-beating tremor, associated with lesions in the dentatorubrothalamic pathway, can also be seen in patients with multiple sclerosis, tumors, or stroke involving the superior cerebellar peduncular region. This patient was started on copper-chelating treatment with penicillamine. At the 6-month follow-up visit, the tremor had improved markedly and the patient had resumed independence in activities of daily living.