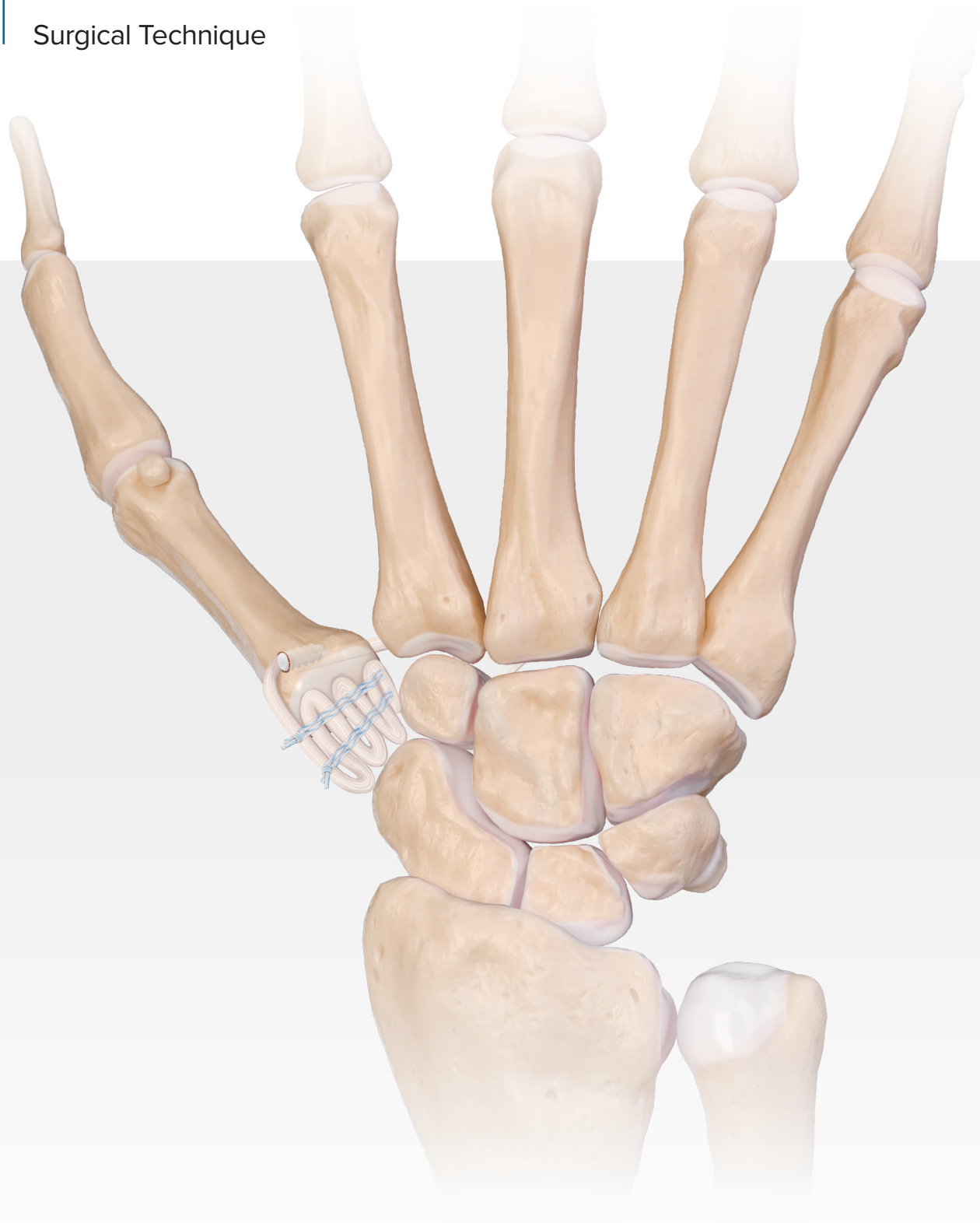
Ligament Reconstruction–Tendon Interposition for Thumb CMC Arthritis

Surgical Technique



Arthrex®

Ligament Reconstruction–Tendon Interposition for Thumb CMC Arthritis

Thumb basilar arthritis is a debilitating condition often accompanied by subluxation of the metacarpal and concomitant attenuation of the ligamentous stabilizers of the carpometacarpal (CMC) joint. The ligament reconstruction–tendon interposition (LRTI) remains one of the most common procedures performed to restore pain-free mobility of the thumb.

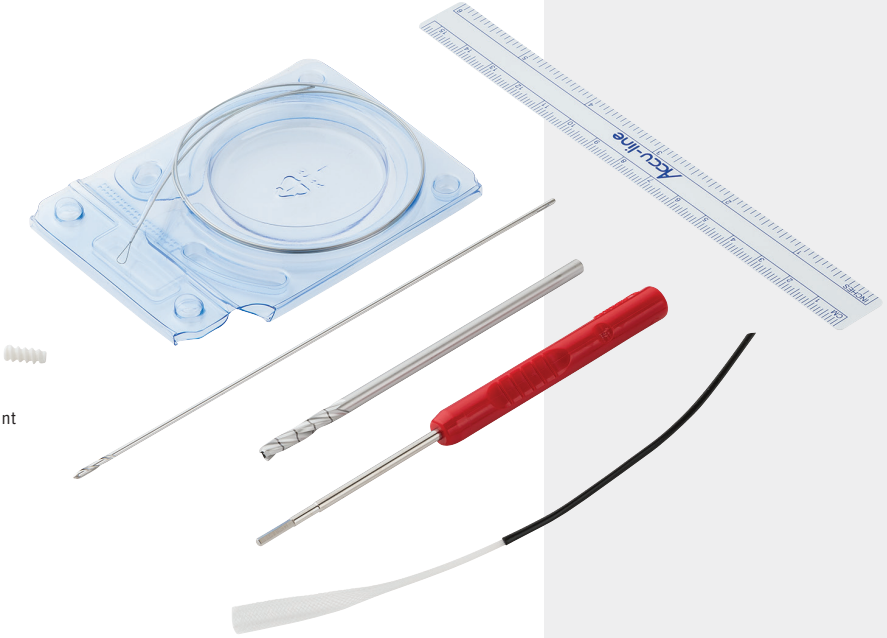


CMC Ligament Reconstruction Implant System

The CMC Ligament Reconstruction Kit provides a convenient all-in-one solution for ligament reconstructions of the base of the thumb. Combining our state-of-the-art Tenodesis Screw System with a convenient disposables kit, the CMC Ligament Reconstruction Kit is designed to enable a convenient repair. Drill hole preparation of the first metacarpal is achieved using the included guide pin and 4 mm cannulated drill. The QuickPass Tendon Shuttle® instrument allows for easy, hassle-free passage of the tendon graft through the prepared tunnel. The 4 mm x 10 mm PEEK tenodesis screw provides immediate fixation of the graft, which allows for a robust repair and enables precision tensioning of the graft.

Postoperative Treatment and Patient Rehabilitation

The patient is placed into a thumb spica splint. After the sutures and postoperative splint are removed, a short arm thumb spica cast should be considered for up to 4 weeks. After that, a splint is worn again, but may be removed for self-care, therapy exercises, and controlled situations where the repair is not put at risk. The patient is weaned from this splint as range-of-motion and comfort increase. Postoperative care is always patient- and surgeon-dependent. Referral to occupational therapy or a certified hand therapist is recommended to maximize rehab potential. For additional information, please refer to the Directions for Use packaged with the product.



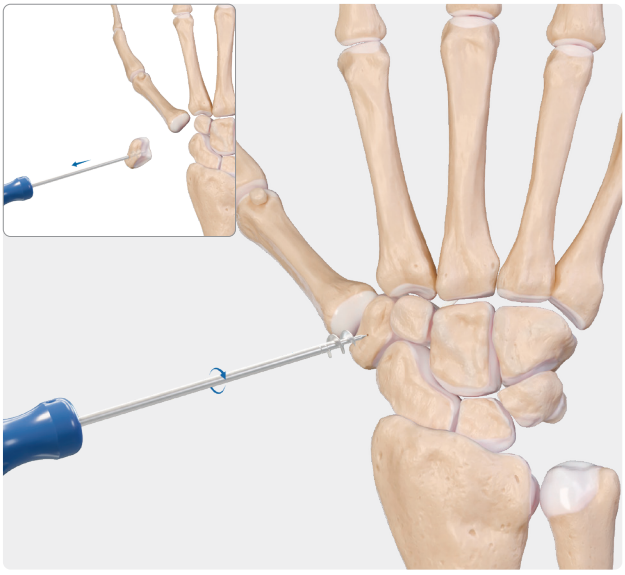
CMC Ligament Reconstruction Kit Implant System (AR-1677BC-CP)

Surgical Technique



1

Make a longitudinal incision through the dorsoradial aspect of the wrist through the dermis only to avoid injury to the sensory branch of the radial nerve. Incise the CMC joint longitudinally between the abductor pollicis longus (APL) and extensor pollicis brevis (EPB) tendons then elevate the capsule off the trapezium and into the scaphotrapezial joint.



2

Excise the trapezium using the sterile trapeziectomy tool, which functions as a joystick to loosen it from the surrounding carpal bones and soft tissue. Use a McGlamry elevator, as needed, to initiate removal.

Thoroughly inspect the resultant cavity and remove any residual bone or osteophytes, particularly those located distal and palmar to the volar beak of the proximal thumb metacarpal.

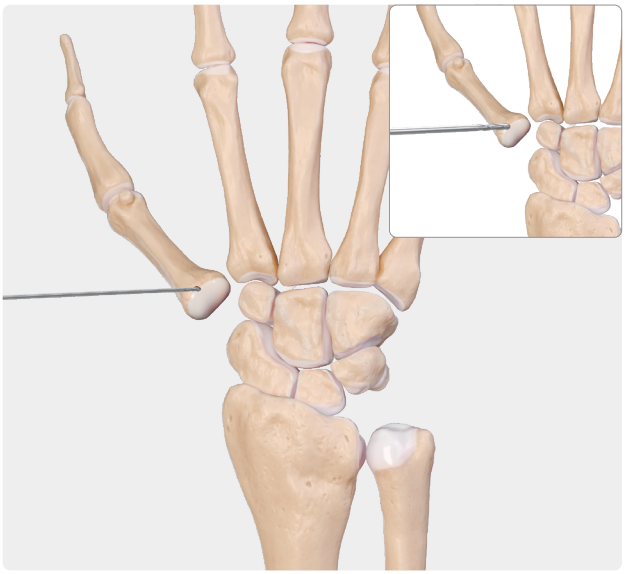


3

Make a transverse incision over the flexor carpi radialis (FCR) tendon approximately 10 cm from the proximal wrist crease and the tendon is divided sharply. Create a second incision over the FCR at the wrist crease, then withdraw the divided tendon distally into the wound. Through the cavity created by trapezial excision, continue withdrawing the FCR distally to redirect it from its attachment at the base of the index metacarpal. Split the tendon sharply into a 4 mm strip to create a uniform tendon graft.

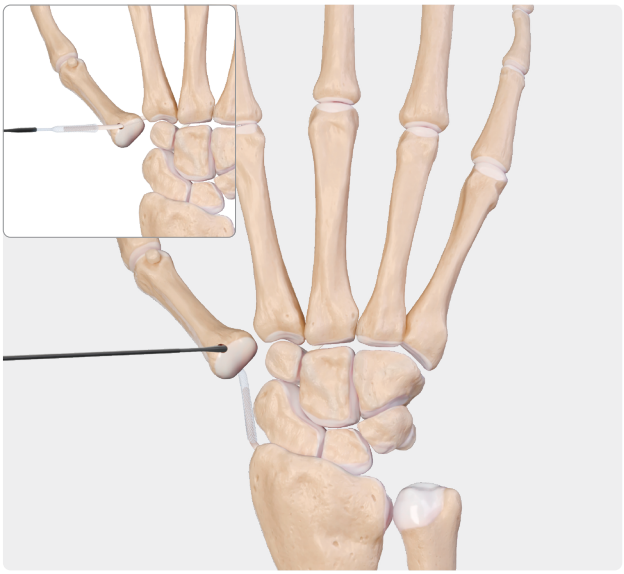
> **Optional method:** Harvest a portion of the FCR through the trapezial space to eliminate the need for a second incision. Transect the FCR proximally within the trapezial space near the scaphotrapeziotrapezoid (STT) joint to obtain a 4-5 cm graft.

> **Note:** This shortened graft length will preclude using the graft as an interpositional spacer.



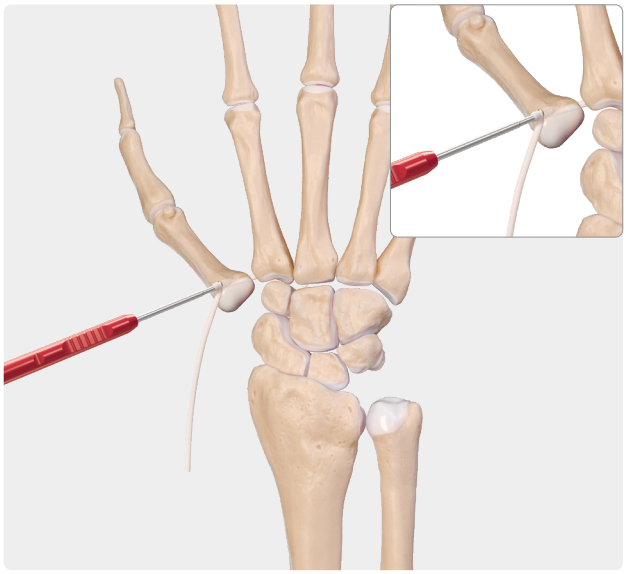
4

Dissect the dorsal aspect of the proximal half of the metacarpal free of periosteum. Insert the short guide pin, followed by the 4 mm cannulated drill, to create a tunnel from the dorsal metacarpal into the volar beak. Position the starting point approximately 1 cm distal to the articular surface to minimize the risk of metacarpal fracture. Place a retractor beneath the volar beak to protect the FCR tendon and its insertion.



5

Place the QuickPass Tendon Shuttle® instrument over the end of the FCR tendon. Advance the tip of the tendon shuttle through the trapezial space and out the hole created in the metacarpal, pulling the FCR with it. Remove the tendon shuttle.



6

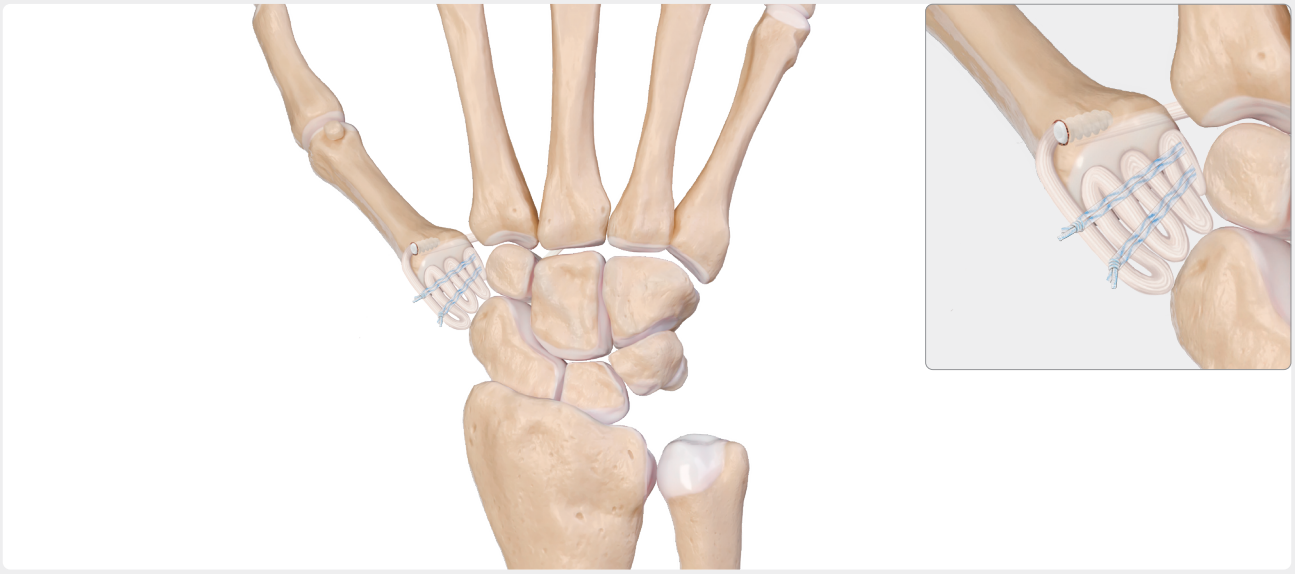
While maintaining tension on the FCR and pressure on the metacarpal, place a 4 mm × 10 mm tenodesis screw in the drill hole and advance until it is flush with the cortex and secures the FCR against bone.



7

Once the tenodesis screw is fully secured, trim the remaining FCR tendon flush with the metacarpal surface.

Optional Step



8

After the remaining portion of FCR is folded upon itself, sutured, and put back into the trapezial cavity, the folded FCR can be secured with 0.9 mm SutureTape. Close the capsule and periosteum, incorporating the FCR as it exits the bone and redirects into the cavity, using 3-0 FiberWire® suture. Do not repair the FCR back to itself. Complete the remaining closure per surgeon preference.

Ordering Information

CMC Ligament Reconstruction Implant System	AR-1677BC-CP
› Guide pin, 1.57 mm	
› Cannulated drill, 4 mm	
› QuickPass Tendon Shuttle®, small	
› BioComposite tenodesis screw, 4 mm × 10 mm	
› Tenodesis driver, 4 mm × 10 mm	
› Ruler	
› Suture passing wire	
Suture Options	
2-0 FiberLoop®, curved taper needle	AR-7232-05
2-0 FiberLoop, straight diamond point needle	AR-7232-03
2-0 FiberLoop, curved diamond point needle	AR-7232-02
FiberLoop SutureTape, curved taper needle, 0.9 mm	AR-7570-02
Optional Accessories	
Sterile trapeziectomy tool w/ handle	AR-8919-01S

Products advertised in this brochure/surgical technique guide may not be available in all countries. For information on availability, please contact Arthrex Customer Service or your local Arthrex representative.







Alternative Options

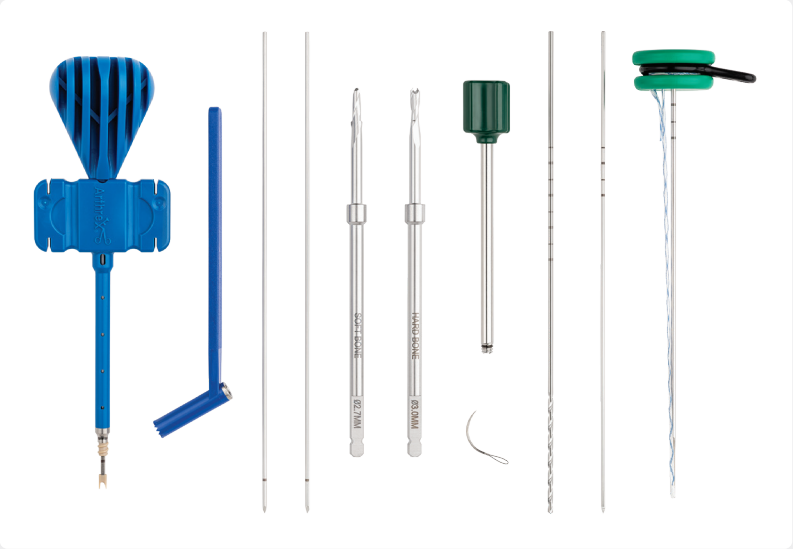
Expand Your CMC Suspension Options

FiberLock™ Suspension Implant Kit (AR-8988-CP)

› FiberTak®-to-SwiveLock® fixation

› Knotless construct only requires a single incision

› Cortical-to-cortical fixation

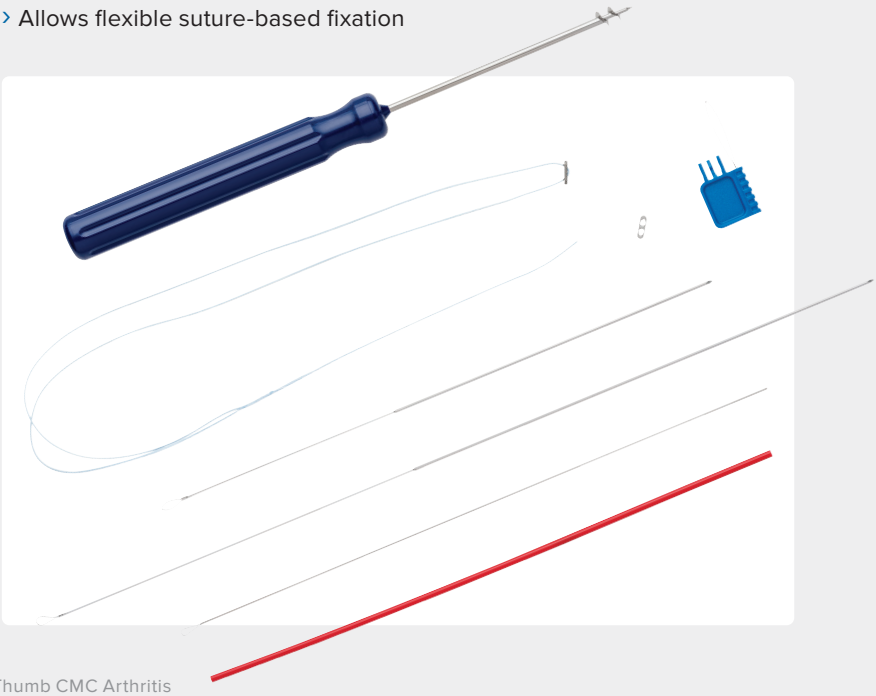


CMC Mini TightRope® Repair Kit (AR-8919DS)

› Stainless steel button fixation

› Solid and stable suspensionplasty

› Allows flexible suture-based fixation



This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's directions for use. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level or outcomes.

Arthrex manufacturer, authorized representative, and importer information (Arthrex eIFUs)

US patent information

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